QUALITY OF LIFE IN THE ALPS

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI

BACKGROUND STUDY

ALPINE SIGNALS

SPECIAL EDITION 10

10th Report on the State of the Alps

Imprint

Editor
Permanent Secretariat of the Alpine Convention
Herzog-Friedrich-Straße 15
6020 Innsbruck
Austria

Operational branch office
Viale Druso/Drususallee 1
391000 Bolzano/Bozen
Italy

www.alpconv.org
www.atlas.alpconv.org
info@alpconv.org

Leading authors: Naja Marot, Tadej Bevk, Maja Debevec, David Klepej, Nina Stubičar and Pina Klara Petrović Jesenovec (University of Ljubljana, Biotechnical Faculty, Department of Landscape Architecture, Slovenia)

Cartography: Tadej Bevk (University of Ljubljana, Biotechnical Faculty, Department of Landscape Architecture, Slovenia)

Graphic design and layout
Graphics: Nina Stubičar, Maja Debevec, Pina Klara Petrović Jesenovec (University of Ljubljana, Biotechnical Faculty, Department of Landscape Architecture, Slovenia)

Publication design and layout: Tea Goljevšček, Eva Batič (Podobarna, Slovenia)

Proofreading: Bertie Dockerill

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI

REPUBLIC OF SLOVENIA
MINISTRY OF NATURAL RESOURCES AND SPATIAL PLANNING

BF UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

The Tenth Report on the State of the Alps was prepared by the team of authors from the Biotechnical Faculty of the University of Ljubljana, Slovenia, with contributions by the members of the ad hoc Working Group coordinated by the Slovenian Presidency and the Permanent Secretariat of the Alpine Convention.

COORDINATION OF THE AD HOC WORKING GROUP

Slovenian Presidency
Tomaž Miklavčič (Ministrstvo za naravne vire in prostor)

Permanent Secretariat of the Alpine Convention
Živa Novljan

MEMBERS OF THE AD HOC WORKING GROUP

Austria
Andreas Bartel (Umweltbundesamt Österreich)
Peter A. Rumpolt (Universität Wien, Institut für Geographie und Regionalforschung)
Katharina Zwettler (Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie)

France
Kirsten Koop (Université Grenoble Alpes)

Germany
Stefan Mitterer (Bayerisches Staatsministerium für Umwelt und Verbraucherschutz, Germany)
Lukas Kühne, Josiane Meier, Daniel Meltzian, Thomas Otte (Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen)

Italy
Massimiliano Bultrini (ISPRA)
Andrea Omizzolo (EURAC Research)

Liechtenstein
Karin Jehle, Nora Zenhäusern (Liechtensteinische Landesverwaltung)

Monaco
Wilfrid Deri (Gouvernement Princier de Monaco)

Slovenia
Blanka Bartol (Ministrstvo za naravne vire in prostor)

Switzerland
Nicolas Rodigari (Federal Office for Spatial Development ARE)

OBSERVERS IN THE AD HOC WORKING GROUP

Christian Baumgartner, Bianca Elzenbaumer (CIPRA International)
Katharina Gasteiger (Alliance in the Alps)
Magdalena Holzer (Alpine Town of the Year Association)
Ann-Kristin Winkler (WWF)
Angelika Abderhalden, Carolina Adler, Florian Knaus (ISCAR – International Scientific Committee on Research in the Alps)

FURTHER INSTITUTIONS AND PEOPLE THAT CONTRIBUTED TO THE REPORT

Students of Universität Wien, Institut für Geographie und Regionalforschung, Bachelor in Geography programme (primarily 2nd year students), study years 2022/2023 (case studies Eisenerz and Lesachtal) and 2023/2024 (further four case studies)
Members of the Spatial Planning and Sustainable Development Working Group of the Alpine Convention (mandate period 2023–2024)
Members of the Alpine Biodiversity Board of the Alpine Convention (mandate period 2023–2024)
Nathalie Morelle, Živa Novljan, Stephanie Wolff (Permanent Secretariat of the Alpine Convention)

FOCAL POINTS OF THE ALPINE CONVENTION

Austria
Katharina Zwettler (Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie)

France
Isabelle Paillet (Ministère de la Transition écologique et de la Cohésion des territoires)

Germany
Christian Ernstberger (Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz)

Italy
Paolo Angelini (Ministero dell'Ambiente e della Sicurezza Energetica)

Liechtenstein
Karin Jehle (Liechtensteinische Landesverwaltung)

Monaco
Astrid Claudel-Rusin (Gouvernement Princier de Monaco)

Slovenia
Majda Lovrenčič (Ministrstvo za naravne vire in prostor)

Switzerland
Nicolas Rodigari (Federal Office for Spatial Development ARE)

European Union
Andrea Bianchini (European Commission, Directorate-General for Environment)

Table of contents

Abbreviations

ALPARC	Alpine Network of Protected Areas
AC	Alpine Convention
AG	Action Group
ARPAF	Alpine Region Preparatory Action Fund
AT	Austria
BY	Bavaria
CIPRA	International Commission for the Protection of the Alps (fr. *Commission Internationale pour la Protection des Alpes*)
CH	Switzerland
CIPRA	International Commission for the Protection of the Alps (fr. *Commission Internationale pour la Protection des Alpes*)
CLLD	Community-led Local Development
CO_2	Carbon dioxide
DE	Germany
EAFRD	European Agricultural Fund for Rural Development
EEA	European Environment Agency
EFTA	European Free Trade Association
EGTC	European Grouping of Territorial Cooperationn
EIA	Environmental Impact Assessment
ERDF	European Regional Development Fund
ESPON	European Observation Network for Territorial Development and Cohesion
ES	Ecosystem Services
ESF	European Social Fund
ESS	European Social Survey
EU	European Union
EU-LFS	EU Labour Force Survey
EU-SILC	EU Statistics on Income and Living Conditions
EUSALP	The EU Strategy for the Alpine Region
EUROSTAT	European Statistical Office
FR	France
GDP	Gross Domestic Product
GFS	Governance Framework Survey (Chapter 6)
GIS	Geographic Information System
HDI	Human Development Index
IPCC	The Intergovernmental Panel on Climate change
IT	Italy
LAG	Local Action Group
LEP	State Development Programme (de. *Landesentwicklungs-programme*)
LI	Liechtenstein
MAP	Multi-Annual Work Programme of the Alpine Conference
MC	Monaco
NGO	Non-Governmental Organization
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organization for Economic Co-operation and Development
OSM	Open Street Map
QoL	Quality of Life
PM10	Particles of diameter smaller than 10 µm
PM2.5	Particles of diameter smaller than 2,5 µm
RSA 10	10th Report on the State of the Alps
SDG	Sustainable Development Goal
SGI	Services of General Interest
TA2030	Territorial Agenda 2030
TQoL	Territorial Quality of Life
UN	United Nations
WG	Working Group

1 INTRODUCTION

1.1 Introduction to quality of life

Quality of life (QoL), is a comprehensive approach to describe living conditions in a particular location including the material, social, and ecological conditions of the population living there. In the past decade the concept has been addressed not only by researchers, but also by governments, and the European Union (EUROSTAT, 2023). This resulted in the introduction of the concept into umbrella national policies, such as the Slovenian national development policy (Government of the Republic of Slovenia, 2017), and the establishment of QoL monitoring systems and annual reports, such as the Austrian concept "How's Austria?", the EUROSTAT Quality of life platform, the ESPON Territorial Quality of Life dashboard (ESPON, 2020), the OECD Regional Wellbeing platform (OECD, 2023), and others. These systems are all based on quantitative data described through a set of indicators, and they mostly show the relative differences between the various locations regarding living conditions. The systems differentiate in how exhaustive their individual lists of indicators are – the UN human development index, for example, is based on three indicators (UN, 2023), while the ESPON QoL dashboard uses about 50 indicators altogether (ESPON, 2020).

As our transnational research within Alpine countries has shown, there are several terms similar to QoL including: well-being, happiness, and life satisfaction which are not necessarily comprehended and applied in the same manner (see Table 1.1). The equivalent of the QoL term is used in Austria (Lebensqualität) and Slovenia (kakovost življenja). In contrast, Italy (benessere) and France (bien-être) predominantly use the terminology "well-being", while Switzerland (Wohlfahrt) and Liechtenstein (Volkswohlfahrt) focus more on the notion of welfare. In Switzerland, the notion of welfare is predominant,

Country	Quality of Life	Well-being	Welfare	Standard of Living	Other
AT	Lebensqualität	Wohlbefinden	Wohlfahrt (social welfare)	Lebensstandard	Wohlstand (Wealth)
DE-BY	Lebensqualität	Wohlbefinden, Wohlergehen	Wohlfahrt, Fürsorge	Lebensstandard, Gleichwertige Lebensverhältnisse (equivalent living conditions)	Heimat (sense of belonging)
CH		Wohlbefinden, Wohlergehen	Wohlfahrt		
LI	Lebensqualität		Volkswohlfahrt (public welfare)		
SI	Kakovost življenja	Blaginja	Blaginja	Življenjski standard	Socialno varstvo (social welfare)
IT	Qualità della vita	Benessere		Liveli Essenziali dele Prestazioni (essential level of performance and services)	
FR	Qualité de vie' (associated with work and working conditions)	Bien-être (in public policy and regional planning)			
MC	La qualité de vie'			Cadre de vie (living environment)	

TABLE 1.1 Terminologies used regarding the quality of life concept.

and the OECD measuring concept of well-being is used. In Monaco, the term "la qualité de vie"' is the QoL equivalent, but the official statistics also use different terminology to measure QoL, namely, living environment (cadre de vie). Similarly, Germany developed the concept of equivalent living conditions (Gleichwertige Lebensverhältnisse), and ensures that all citizens, regardless of where they live, have access to work, education, housing, recreation and the goods and services of daily life. In Austria and Germany, the concept of QoL is a discourse in the field of spatial planning and regional development.

In addition, authors such as Schallock (1996) have identified more than 100 definitions and models of QoL, and have agreed that quality of life is a multidimensional and interactive construct encompassing many aspects of people's lives and environments. While considering quality of life, it is important to include the subjective component as well since the purpose of QoL evaluation is not only to show how an area is doing from an objective physical design perspective, but also from a subjective human response perspective (Andereck & Nyaupane, 2011). Intangible factors such as personal emotions and attitudes towards life are not to be neglected (González, Cárcaba & Ventura, 2011). Veenhoven (2000) went further and elaborated people's satisfaction with life into four components: pleasure (part of life passing satisfaction), part-satisfaction (part of life enduring satisfaction), top-experience (life-as-a-whole passing satisfaction), and life satisfaction (life-as-a-whole enduring satisfaction).

In the same way that there is no unanimous definition of the concept, there is also no one single approach as to how to measure it. Some approaches emphasize quantitative measurement of life conditions (e.g. ESPON's Territorial Quality of Life), while others rely more on people's perceptions of their quality of life by expressing their satisfaction with living conditions or well-being via the surveys, like the European Social Survey, EU-SILC, and others. To measure QoL, two types of indicators can be used: objective circumstances of people's lives, such as income and education attainment; and subjective evaluations of life circumstances, such as satisfaction with various aspects of life (Heal & Sigelman, 1996; Schalock, 1996). In addition, objective dimensions of QoL can also be considered and cover employment opportunities, job security, recreational opportunities, family structure, social networks, historical infrastructure and environmental factors including crowding, noise, litter, traffic congestion, driving hazards, and water and air pollution (Anderecek & Nyaupane, 2011). Measures can also be absolute or relative, indexing people's QoL or comparing them to some standard such as what they would ideally want (Heal & Sigelman, 1996).

Individuals incorporate a subjective dimension into their ratings. The subjective dimension of QoL is emotional and value laden, and encompasses factors such as life satisfaction, happiness, feelings of well-being, and beliefs about standard of living (Davidson & Cotter, 1991; Diener & Suh, 1997; Dissart & Deller, 2000; Grayson & Young, 1994). Such data is best gathered via social science participation techniques, including surveys, focus groups, interviews, and workshops. The Morrison institute for Public Policy (1997) emphasised that policy makers need information about how citizens perceive the factors contributing to QoL. Some of the dimensions of QoL can be difficult to measure and over time social-indicators-based approaches have evolved which use a series of indicators without the need to assign them monetary values. In addition, the EU has argued that evaluating QoL should go beyond GDP and monetary-based variables (EUROSTAT, 2023). Perceptions of QoL are an important element to consider while selecting the approach to measure QoL; perceptions of a good life can also be considered as synonymous to the concept of well-being. Well-being and a good life can be subject to various interpretations, ranging from living happily and achieving personal fulfilment to considering broader external circumstances, such as natural disasters and other significant external events (ESS, 2023; Willroth *et al.*, 2023). Additionally, perception may be determined by factors such as age and sex, emotional state, subjective well-being, social support, coping styles, personality, health and cultural values (Urzua *et al.*, 2012). Furthermore, and relevant to the Alps, according to Bernard *et al.* (2015), people with the common cultural and historical backgrounds tend to share their values, thus their perceptions of QoL may be similar. A time dimension should be considered as well since people's perceptions can change over time as their priorities and goals shift, thus influencing QoL as well. For instance, health-

related concerns often have a greater impact on the perceptions of the elderly, while an individual's job situation, relaxation, and contentment tend to be more factors that are more influential for younger generations. Those who prioritize job and money-related factors, such as having enough resources to meet basic needs, often experience lower well-being (Willroth *et al.*, 2023).

Kubicova and Blaškova (2021) argued about the relevance of income as an important factor to determine more positive perceptions of QoL and well-being. A country with an economic level is likely to have better living conditions, higher wages and possibly better job opportunities, therefore indicating a higher QoL. However, a higher value of macroeconomic indicators might not correlate with good perceptions of well-being and life satisfaction, thus a case for a comprehensive approach to assess QoL is needed.

Gathering the data for relevant sets of indicators to evaluate QoL, especially when done in a multinational context, is not trivial, since statistical data is not equally accessible at all administrative or territorial levels. The more detailed we intend to go, the more likely that there will be difficulties. González, Cárcaba and Ventura (2011) stated that at the municipal level there can be information missing, or that data may be incompatible or outdated. When we evaluate QoL between countries or regions as in the case of RSA 10, comparable data needs to be available (Bonini, 2008). Some of the indicators can be measured at the level of an individual, a family, a community, a municipality, a region, a state or a country. An additional improvement to measuring QoL could also be to weight the importance of each indicator based on the priorities and aspirations of selected areas or with regards to the whole concept of QoL (ESPON, 2019; González, Cárcaba & Ventura, 2011).

If one needed to depict the factors most influencing the quality of life, an array of choice would occur. Schalock (1996) provided a full list of so-called crucial factors including: emotional and psychological well-being, interpersonal and social relationships, material well-being, including employment and economic security, physical well-being, including wellness and recreation/leisure, self-determination, social inclusion, dignity and rights, including privacy. Cárcaba, Arrondo and González (2022) put income, wealth, housing, health status and social connections into focus. Bonini (2008) depicted several factors associated with good well-being: good physical and mental health, increase in income, contact with nature, and a healthy environment.

Some of the authors elaborate on the role of governance in securing good QoL. From the perspective of this report, this is also a relevant factor to describe. According to the same authors "quality of government" has a positive effect on life satisfaction. Especially, it is relevant that government's attempt to protect citizens from market forces by, for example, providing public services which contribute to better satisfaction with well-being. However, there can also be negative impacts of poor governance on QoL; for example, long-term corruption present in a government can lower trust in the political and legal system (Bennett, Nikolaev & Aidt, 2016). The ESPON (2019) report also stated that the living conditions of the municipality in which the citizen lives have an enormous impact on one's personal QoL and should, therefore, be a primary concern of public policies.

In the Alps, the following factors were named in the ESPON's report (2018) as the most relevant for measuring QoL:

- The territorial morphology influencing the settlement patterns, accessibility and travel time to services; the feasibility and costs of developing infrastructure;
- Extreme weather events and climate change, including factors such as extreme temperature, change s in precipitation, avalanches, and debris flows;
- The accessibility of ecosystem services to mitigate climate change impacts, especially in urban areas;
- Migration dynamics and trends: lifestyle choices related to job opportunities and secondary homes ownership;
- Tourism: if properly managed, the sector supports economic development and provides job opportunities for local residents. If poorly managed, it can have adverse effects, seriously impacting the overall QoL;

- Macroeconomic trends, such as the economic crisis in 2008;
- Digitalisation and technological changes offer new options for societal life and work possibilities;
- Effective development management and spatial planning serve as enablers to the attainment of a high QoL.

There have been several attempts to measure quality of life in the Alps. The most elaborated is by Keller (2010) who used three pillars of sustainability to depict and measure QoL. He started with a longer list of 300 indicators and in the end came down to a set of 50. The QoL was described by three dimensions (environment, economic and socio-culture dimension) and 12 sets (economic power, labour market, mobility, population, health, education and culture, gender equality, participation, leisure, solar potential, landscape, and biodiversity and environmental protection). The purpose of this indicator-based QoL measurement was to cluster the Alpine NUTS 3 regions in seven countries, Monaco excluded, according to their QoL performance. In the ESPON 2019 report it was suggested that, from an economic perspective, QoL in the Alps is good, since GDP is above the EU average. However, the report outlined the bipolarity between the northern and the southern part of the Alpine area when assessing certain aspects of QoL, with the northern side (comprising Switzerland, Germany, Austria and Liechtenstein), generally outperforming the southern regions. Concerning accessibility to services, the Inner-Alpine regions typically registered lower accessibility values, except for more urbanised areas (ESPON, 2018, 2019). The strategies for the provision of services of general interest (shorter SGI) in the Alpine area were more into detailed analysed in the INTESI project. According to the report of Kolarič *et al.* (2017) the following gaps need to be addressed for more efficient and demand-based provision of services in the Alps: unclear or unspecified funding plans and measures in the strategies to supply SGI, lack of integration (services, actors, policies, funds), poor vertical co-operation and a lack of bottom-up approach, absence of the monitoring of the actual needs for SGI, and a lack of policies and solutions specifically related to the mountainous area.

Besides reports on QoL considering the Alps as a whole, in 2023 there were several QoL projects and studies which focused on particular areas as case studies. For instance the report on quality of life of South Tyrol, performed by Free University of Bozen-Bolzano (Bausch and Tauber, 2023), the ESPON Territorial Studies: Quality of Life in the Alpine Convention space (ESPON, 2023) which focused on depicting relevant indicators, factors and territorial features that more prominently influence the TQoL in the Alpine region (see 1.5.1), and Erasmus+ Alpine Compass project (CIPRA; see 1.5.2), There are also a number of Interreg initiatives contributing as well to the QoL, such as the project "Lebenswerterraum Alpenraum" (Eng. Life-value Alpine regions) which deals with sustainable practices to tourism in rural areas that are developed and supported by the citizens.

With regards to environmental living conditions, the Alpine area has well-preserved natural resources which are especially relevant to climate change, projected shifts in air temperatures, and other effects (ESPON, 2019). We must keep in mind, that adaptation possibilities in mountainous areas such as the Alps are limited; this could harm future QoL in the Alps. According to several studies, the Alpine regions are anticipated to experience extended dry periods and reduced precipitation during summers which might result in soil degradation. Further, wind erosion and an escalated risk of forest fires pose a threat to infrastructure, settlements, and forest ecosystems (Probst, Hohmann, Pütz, Braunschweiger & Kuhn Belaid, 2019; Schindelegger, Steinbrunner & Ertl, 2022). It is projected that precipitation will increase by 0,5% to 1% per decade in the Alpine regions. By the year 2100, heavy precipitation events, currently occurring every 8 to 20 years, are expected to happen approximately every 5 years, indicating a higher frequency of intense precipitation events like storms. In addition, snow coverage is anticipated to decrease below elevations of 2.000 metres, with glaciers and permafrost melting at faster rates, and increased risk of landslides (Schindelegger, Steinbrunner & Ertl, 2022). These changes in climate conditions also have impacts for human health, safety, and overall well-being since they will influence the living conditions in the Alpine regions. The costs associated with infrastructure maintenance, transportation services and building

renovations might increase. Moreover, the warmer and drier climate is expected to lead to higher levels of air pollutants, such as PM10 (inhalable particles, with diameters that are generally 10 micrometres and smaller), PM2.5 (fine particles that are 2,5 microns or less in diameter), and ozone, resulting in degraded air quality and effects on human health (Probst, Hohmann, Pütz, Braunschweiger & Kuhn Belaid, 2019; Schindelegger, Steinbrunner & Ertl, 2022). On the Alpine convention website, the threat of climate change has been especially emphasised as relevant for QoL as well:

"The recent extreme weather events in the Alpine region have clearly shown that the Alps are seriously hit by the negative impacts of the climate crisis. Temperatures are increasing almost twice as quickly in the Alps as in the rest of the northern hemisphere. The temperature rise of ´more than +2°C since the late 19th century as well as changes in the precipitation patterns (heavy precipitation in short time, followed by longer drought periods) are already widely affecting the Alpine environment. We are witnessing a reduction of the habitat of endemic animal and plant species, changes in water availability (including snow), rapid glacier melting, permafrost thawing, stress on forests, as well as an increased risk and unpredictability of natural hazards. These changes have an impact on nearly all human activities throughout the Alps" (Alpine Convention, 2023).

Because of the importance of this topic for the people of the Alps, the 7th RSA was dedicated to natural hazard risk governance and elaborated on how to best address natural hazards in the Alps and prepare for natural disasters such as the flooding catastrophes. Recent examples of the same include the flooding in the valley of the Saalach river in Salzburg, the hurricane Vaia in Carinthia and Eastern Tyrol (both in 2018), and the floods in the Alpine area of Slovenia in the summer of 2023. The assessment of the readiness of the countries was inconclusive and stated that no AC country had performed a shift from risk management to risk governance. However, it also noted that some measures had been put in place, such as: integrated risk management (CH), catchment management and river contracts (IT), avalanche warning systems and flood prevention as a whole (DE), hazard mapping and crisis management (LI), disaster management (SI), flood management, and local avalanche protection (Permanent Secretariat of Alpine Convention, 2019).

As described in this section, the Alpine area has some specifics which influence the quality of life and the well-being of its inhabitants. The already high quality of life (ESPON, 2018) needs to be maintained, developed and o improved; tasks best handled by spatial planning. The planning process contributes in different ways to securing a good quality of life including: managing disaster risks, preparing strategies for tourism adaptation, utilisation of renewables, solutions with regards to mobility, measures that help biodiversity conservation and the protection of natural resources and protected landscapes, and opportunities to define goals related to QoL. In addition, spatial planning has the power to take into account the territorial specifics of different areas in both preparing and implementing measures which contribute to good and comparable QoL for all inhabitants. While applying these measures, one needs to consider which administrative level is optimal for the implementation of the same.

1.2 Aims and objectives

The motto of the Slovenian Presidency of the Alpine Convention 2023–2024 is Quality of life in the Alps for all. The Framework Convention for the Protection of the Alps (The Federal Republic of Germany *et al.*, 1991) already provides an integrated policy framework for the protection and sustainable development of the Alps, which addresses the need to balance economic interests with environmental conditions, and provides a basis for securing living standards for the Alpine population. Taking this into account, the Declaration on Population and Culture (AC, 2006) emphasises the preservation of habitat, the quality of life and the provision of equal opportunities for the population in these areas. The declaration includes measures to secure the preservation of settlement conditions in accordance with the principle of sustainable development, the provision of services of

general interest, and the strengthening of a sense of belonging to the community and its identity.

The 10th Report on the State of the Alps (hereafter RSA 10) focuses on QoL, and builds on the existing ESPON TQoL project (ESPON, 2020), the Slovene Quality of Life Atlas (ESPON, 2021), the ESPON study-on-demand addressing QoL and other relevant studies on the Alps which have emphasised improving the life of the Alps' population. The topic of QoL is also linked to the work of Thematic Working Bodies, including both thematic groups, e. g. the thematic work group on Transport; on Soil Protection; on Spatial Planning and Sustainable Development, and the work of both the Alpine Climate Board and the Alpine Biodiversity Board. The report and proposed recommendations will be endorsed by the XVIII Alpine (Ministerial) Conference in in January 2025. The report will also contribute new evidence in support of the implementation of the Alpine macroregional strategy EUSALP and the Interreg Alpine Space Programme.

The RSA 10 represents a concrete contribution to the implementation of one of the three priorities of the Multi-Annual Work Programme 2023–2030, which was adopted in the autumn of 2022. This priority area is called "Enabling a good quality of life for the people in the Alps", and emphasises two objectives:

1. To improve the knowledge of the Alpine Convention on the QoL of people in the Alps by detecting and respecting spatial and individual differences;
2. To promote the integration of QoL related measures into public policy-making processes at all territorial levels.

Given this, the aims and objectives of the RSA 10 are:

- To describe the governance framework of the AC (institutional, legislative and monitoring aspect), and identify the current governance gaps for delivering good QoL;
- To provide knowledge in the area of AC about the various aspects of QoL, including the quality and accessibility of service provision, the quality of the environment, the quality of related to climate change and biodiversity, and so on
- To represent the information and data on QoL gathered for the Alpine region via the dashboard and in various graphic forms, including charts, thematic maps, and infographics;
- To identify people's perceptions of the QoL in the AC area;
- To find good practices for securing aspired QoL across the AC;
- To formulate recommendations for identified target groups on how territorial development, urban, spatial planning and related policies should respond, and how QoL could be better addressed in policy-making processes, and
- To contribute to the theoretical knowledge of QoL concept by applying it to the AC area.

To better streamline the discussion of the working group (WG) and the preparation of this report, three leading questions were formulated:

1. What is the current state of enablers of QoL in the Alpine area?
2. What do people think about the current QoL in the Alpine area?
3. How can the policy making be adapted in the AC countries to secure good QoL?

This Background Study includes answers to the first two questions, while the third one will be addressed in the further work of the contractor and the WG and collected in the final version of RSA 10. To answer the first question, statistical and GIS data was processed and presented (for resources and results see chapters 2, 3 and 4 respectively); to answer the second question a survey across the Alps was undertaken between June and August 2023 (for results see chapter 5). More information on methodologies used is provided in the subchapter 1.4 Methodology.

1.3 Target groups

At the beginning of the RSA 10 preparation process a lot of discussion was dedicated to the target groups as well as for whom the report was actually being prepared. The target groups of the RSA 10 are the following:

Policy makers:

a) On transnational level:

- Alpine Convention bodies (Contracting Parties and Observer organisations)
- European Strategy for the Alpine region – Executive Board, Board of Action Group Leaders – Action Groups
- Alpine Space Programme

b) On national level:

- Ministries responsible for Alpine Convention
- The sectoral representatives related to the QoL topic, namely transport, services of general interest, mobility, demography, access to green areas and health care etc.

c) On regional and local levels

- Regional Governments and administration
- The mayors of Alpine municipalities.

Besides the policy makers the following target groups were outlined:

d) Residents: in general: the selected focus of QoL mostly relates to this target group with regard to how they perceive it and what living conditions are available in the locations in which they live;

e) Youth: one of the target groups requiring specific living conditions, e. g. access to jobs, education, affordable housing, and other related services; YPAC, EUSALP Youth Council

f) Networks, organizations, and professional associations: observers in the Alpine Convention Bodies; such organisations can reach residents of the Alps, e. g. CIPRA, (agents to support the mission), and can also affect/influence decision makers/contribute to decision making in the process of preparing or implementing policies.

The selection of target groups was firstly important with regard to choosing the methodological approaches to adopt in the preparation and scope of the data analysed. The selection was also important with regards to representation and communicating the final results of the report, including recommendations.

1.4 Methodology

Preparation of the Scientific report was done in multiple steps: 1) governance analysis, 2) data and GIS analysis, 3) survey with the residents of the Alps and 4) good practice collection (see Figure 1.1).

During the whole process of preparation, the work of the contractor was reviewed by the WG members who provided suggestions regarding both methodological and content aspects. Furthermore, WG members supplied significant input regarding the first, third, and fourth steps. For the first step they filled in a questionnaire with reference to their respective countries, regarding the third they commented on the survey's draft questionnaire and translated it, and for the fourth they listed and described good practice projects and measures which had so far contributed to better QoL in the Alps. With regards to the second step, they shared their opinions on the proposed list of indicators, potential data resources, and desired outlooks of the maps and charts. Time-wise the preparation process took nine months between January and September 2023. The selected methods and approaches were accommodated within this time schedule and did not allow for much flexibility.

Analytical work as presented in the Background Study represents an input for preparation of the RSA 10 and also of recommendations to be formulated in the process as the major output of RSA 10.

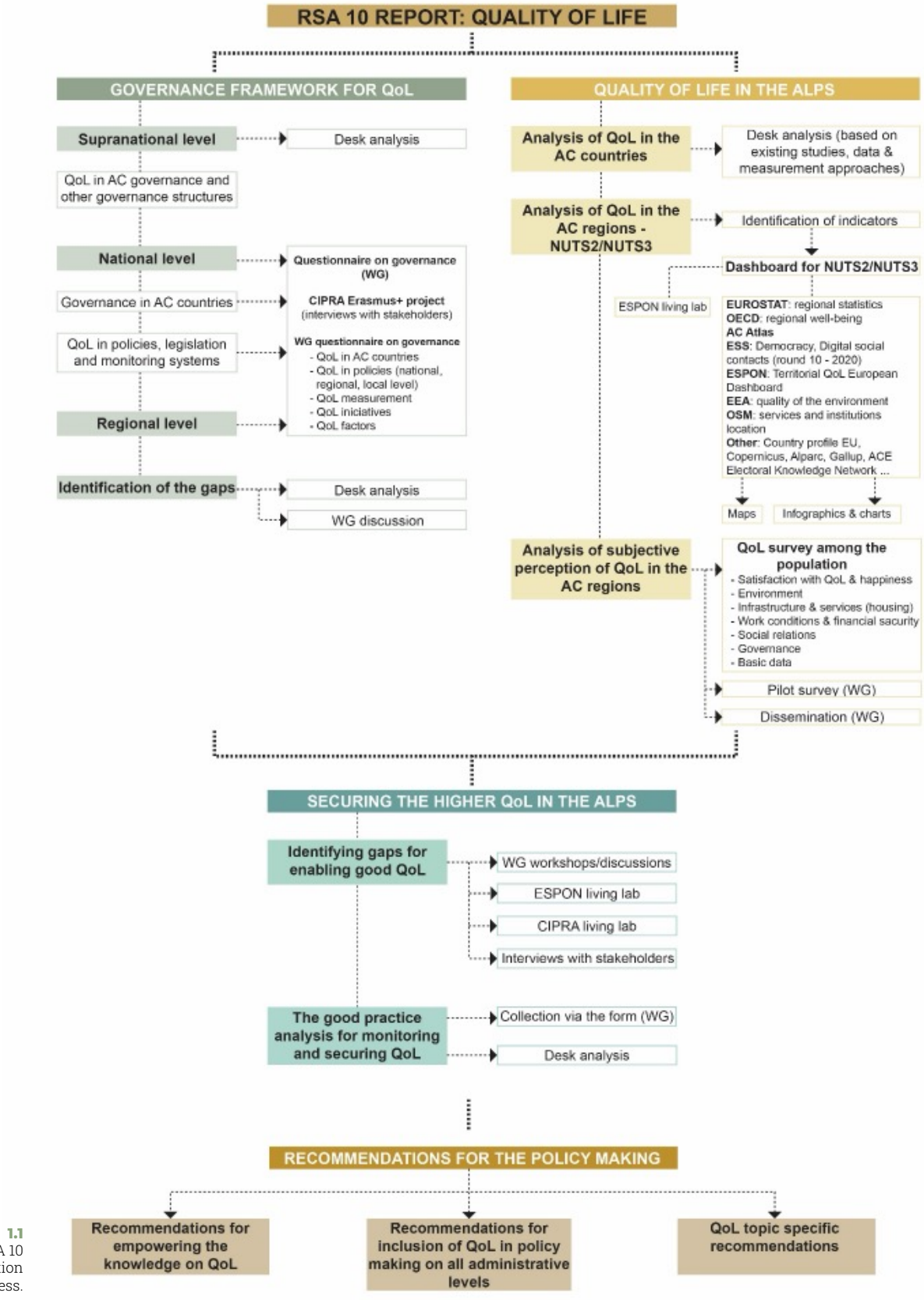


FIGURE 1.1 The RSA 10 preparation process.

1.4.1 The concept of quality of life in this report

For this report's preparation, a concept of quality of life was elaborated based on existing concepts such as the UN Human Index, the EUROSTAT QoL platform, the OECD Regional Wellbeing measurement tool, and the ESPON TQoL project (ESPON, 2019) in particular. The original concept rests on three pillars, namely:

- **Good life enablers:** this pillar is dedicated to evaluating living conditions, including quality of the environment, infrastructure, working conditions, social relations, and governance. It describes the availability of and accessibility to, society's resources in order provide a good quality of life. It can be best targeted by planning and policy interventions oriented towards improving living conditions in a certain area.
- **Life maintenance:** this pillar describes the state of society's well-being as a consequence of the available living conditions as outlined in the first pillar. It is mostly measured objectively, using commonly recognised indicators such as average life expectancy, GDP per capita, population growth, and so on.
- **Life flourishing:** the last pillar describes one's individual perception of quality of life, mostly through the indicators measuring satisfaction with living conditions (enablers) presented in the first pillar, as well as perceptions of one's well-being and satisfaction with life as well.

MEASUREMENT FRAMEWORK OF QUALITY OF LIFE	GOOD LIFE ENABLERS	LIFE MAINTENANCE	LIFE FLOURISHING
ENVIRONMENT	ENVIRONMENT ECOSYSTEMS AND BIODIVERSITY BUILT ENVIRONMENT CONSERVATION AND PROTECTION RESILIENCE AND CLIMATE CHANGE ADAPTATION	SUSTAINABLE / ECO-CONSCIOUS SOCIETY	SATISFACTION WITH ENVIRONMENTAL QUALITY
INFRASTRUCTURE AND SERVICES	HOUSING CONNECTIVITY PUBLIC SERVICES LEISURE AND CULTURAL ACTIVITIES COMMERCIAL SERVICES	HEALTHY, EDUCATED AND LIVELY SOCIETY	SATISFACTION WITH QUALITY OF INFRASTRUCTURE AND SERVICES
WORK AND FINANCIAL SECURITY	JOB OPPORTUNITIES WORK CONDITIONS SOCIAL SECURITY INNOVATION CAPACITY AND SUPPORT FOR ECONOMIC TRANSITION	PROSPEROUS SOCIETY	SATISFACTION WITH QUALITY OF WORK AND INCOME
SOCIAL RELATIONS	SOLIDARITY, INTRAGENERATIONAL AND INCLUSIVE CARE COMMUNITY ACTIVITIES AND EVENTS SAFETY	INCLUSIVE, CARING AND CONNECTED SOCIETY	SATISFACTION WITH QUALITY OF SOCIAL RELATIONSHIPS
GOVERNANCE	PUBLIC POLICIES AND LEGISLATIVE PROCESSES ENABLING PROSPEROUS AND SUSTAINABLE FUTURE INCLUSION AND PARTICIPATION	DEMOCRATIC SOCIETY	SATISFACTION WITH QUALITY OF GOVERNANCE

FIGURE 1.2 Concept of QoL for the purpose of RSA 10 preparation.

As presented in Chapter 1.1 the various dimensions of QoL do not have the same relevance in all the territories. In order to come up with Alpine-specific topics of QoL we asked the WG members during a first meeting in January/February 2023 to name them. The results of the discussion in subgroups are visible in Figure 1.2 where the most relevant topics of

QoL covered in this report are presented. The major topics are interpreted by the subtopics which allow us to understand the quality of life more in detail and are also based on results of the discussion in the subgroups.

1.4.2 Governance analysis

The aim of this report's governance analysis is to describe governance frameworks for Quality of Life (QoL) in the Alps at all administrative levels (supranational, national, regional and municipal/local level). We were interested in policies and legislation which target QoL directly or in the field of spatial planning, as well as the institutional frameworks used to deliver these policies and legislation. Furthermore, we elaborate on organisational practices and the instruments which countries have established to either secure better QoL or monitor it.

The data was collected using a form (questionnaire) in .docx format which was prepared by the University of Ljubljana (see Annex 1.1) from February to July 2023. The respondents were experts delegated by the AC countries to the RSA 10 preparation WG. They had an option to fill in the questionnaire either individually or with a colleague. As the topic of QoL is intertwined between different areas, and fragmented among the competencies of various institutions, regulations and organisational systems, only the most relevant documents or practices are mentioned in the overview. The questions in the questionnaire focused on the following topics: understanding of QoL, policies and legislation – general, development, spatial/territorial planning, sector-specific documents, instruments and measures, institutions in charge of either measuring or steering QoL, and monitoring systems available.

The questions were either answered at a country level (federal or national) or a state level (e.g. "Länder", cantons, provinces). The term "country" is used in the questionnaire for the national and federal level. In order to avoid confusion, we provided a space where respondents stated for which particular administrative unit they were providing answers. As a result of the analysis we formulated a list of the policies and other relevant documents focusing on QoL (see Annex 1.2).

Altogether we received 8 fully filled in questionnaires. The data was then supplemented with additional information found via secondary sources (governmental websites, existing policies, other governance studies for the Alps, and so on).

1.4.3 Indicator data collection and analysis

The major analytical part of the report consists of indicator data collection, analysis and representation. Here, the aim was to prepare a dashboard with indicators that best describe the state of the art of QoL in the Alps, analyse the data and present it in appealing graphic and cartographic form. The first ambition was to use only indicators at the NUTS 3 level, however after searching the data in databases such as EUROSTAT, the European Environmental Agency (EEA), the Alpine Convention Atlas, the ESPON Atlas and others, it was confirmed that a lot of recent data is only available at NUTS 2 level or higher (NUTS 1, NUTS 0). Even more, for certain indicators, namely those from the European Social Survey (ESS), the spatial units differ between countries.

The search for data was undertaken based on ESPON's QoL concept (see the section 1.4.1 of this chapter), so we wanted to equally cover and illustrate the state of the art in all five topics (environment, infrastructure and services, work and financial security, social relations, and governance), and all three pillars (enablers, maintenance and flourishing). The preconditions for collection of the data were that it is available from 2019 onwards and, where possible based on annually updated and publicly available indicators (important for longevity of monitoring QoL in the Alpine area). As a result, most of the indicators' origins was EUROSTAT, except for the ones that needed to be modelled using GIS, which are based on Open Street Map or EEA data. Additionally, we utilized ESS data to also include subjective indicators. Many of the indicators did not include data for Monaco and Liechtenstein, and in some cases data for Switzerland was also absent.

We ended up with an extended list of indicators (more than 80 indicators in June 2023) and, as a result, a workshop exercise was performed during the WG meeting in Radovljica (June 2023). The aim of the workshop was to come up with a list of the core indicators which, according to the opinion of the group, should be exposed and described in more detail in the report, while the rest of the indicators would be only presented in the database (.xlsx file). The list of the 80 indicators was evaluated in the WG meeting and everyone was able to choose 3 'very relevant' and 3 'only relevant' indicators per pillar. The result was a final list of 23 indicators across all three pillars and five topics. The core indicators are the main input for the analysis in Chapter 4. In addition to the core indicators the report also summarizes the values and situation for the indicators for which deviation was observed compared to the regional data for the EU and/or Alpine average, e.g. regions which are underperforming compared to the to EU. Such indicators were 11 altogether.[1] In addition to this, Chapter 4 reports also two general indicators – satisfaction with quality of live according to European Social Survey and happiness. Metadata on indicators, included in the Background study, are reported in Annex 1.3. Altogether, the Chapter 4 thus presents 36 indicators. In the main database, however, the initial list of 80 indicators was also downsized to around 60 in the summer 2023 mostly based on poor availability of data. Thus, the finalised main database consists now of around 60 indicators. The database consists of working sheets covering NUTS 2 and NUTS 3 indicators, metadata on them, and a codebook.

[1] The described situation regarding indicators is effective for the year 2023. During the preparation of the RSA 10, some additional indicators were added.

With regards to representing the data, we have used the approach proposed in the concept

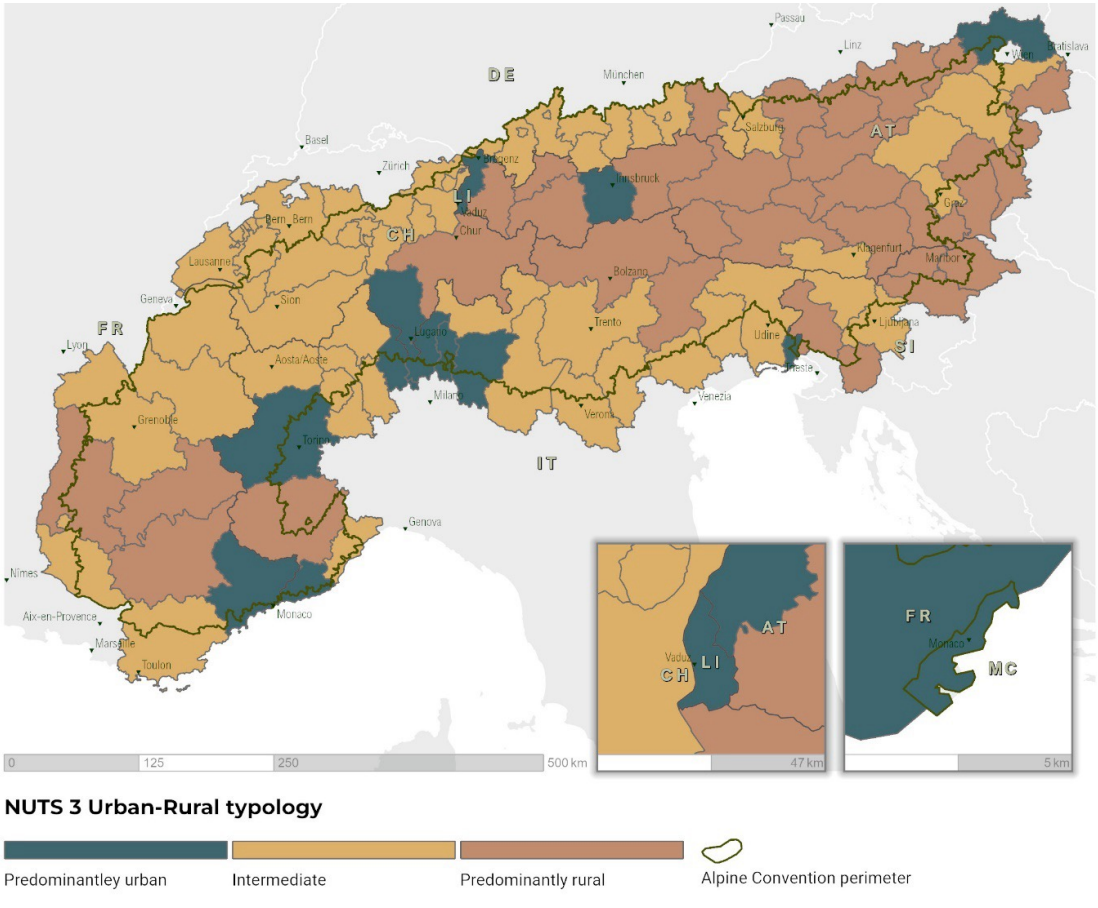


FIGURE 1.3
NUTS 3 urban-rural typology.

NUTS 3 Urban-Rural typology

Predominantley urban | Intermediate | Predominantly rural | Alpine Convention perimeter

Predominantly urban regions are regions where at least 80 % of the population live in urban clusters, intermediate regions where more than 50 % but less than 80 % of the population live in urban clusters and predominantly rural regions where at least 50 % of the population live in rural areas. Monaco is classified on World Bank Data of urban population. (EUROSTAT, 2023)

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

BF UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

Regional level: NUTS 3
Data source: EUROSTAT. 2023. Rural Development. Methodology.
https://ec.europa.eu/eurostat/web/rural-development/methodology
Cartography: Tadej Bevk

of the quality of life. This way, each topic is presented in its own subchapter of Chapter 4 and describes enablers, the life maintenance and life flourishing indicators as well as the relationships between them. The basic approach is to provide a brief description of the selected indicators and their values. To territorially differentiate the areas within the Alpine convention area, we use EUROSTAT's urban-rural typology of NUTS 3 regions, which effectively offers insight into the QoL of rural and urban areas, as well as regions in between. This division is especially relevant with regards to the data on the charts and for calculations of averages and deviations between the types of areas. By adopting this approach, we avoid comparing single regions and produce new information as to how certain types of areas within the Alps are performing. The later information is relevant for place-based policy making. When indicators are available for NUTS 2 or bigger territorial units (NUTS 0 to NUTS 2), we do not differentiate between them. The spatial distribution of rural, urban and intermediate regions is shown in Figure 1.3.

The selected indicators and the data collected through the survey are presented in the following ways: 1) maps, 2) charts or 3) infographics, e.g. word clouds. Some of the indicators are only reported in the text, as in the case of the duration of parental leave, or in the cases where the differences between the regions are minor. For each indicator we first provide a definition of the indicator and then a short description of the indicator's values within the AC perimeter compared with the average of the EU 27 and across the urban-rural typology (see Figure 1.4).

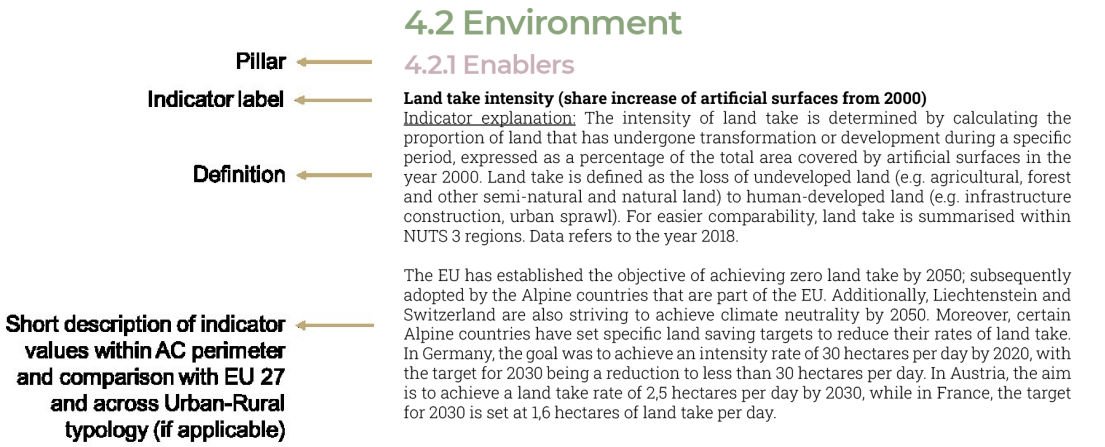


FIGURE 1.4 Example of a description of an indicator.

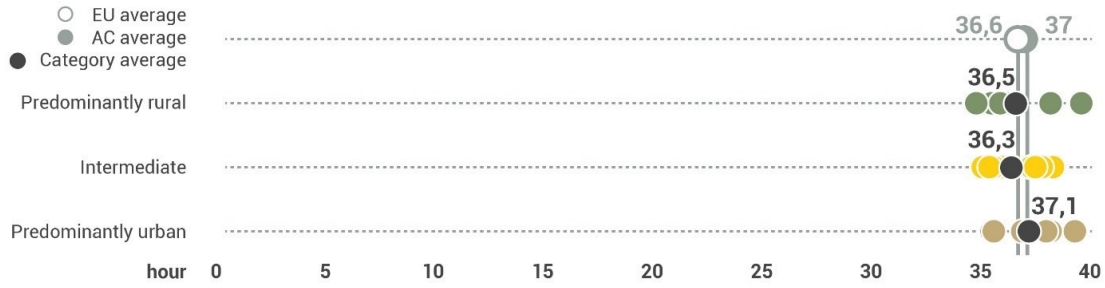


FIGURE 1.5 Example of data representation in the form of a chart: The average amount of hours people work per week in their main job (NUTS 2). (Source: EUROSTAT, LFST_R_LFE2EHOUR, 2022)

Accessibility was a calculation based on Open Street Map point (services) and line (road network) data. The analysis was done using ArcGIS Pro 3.2. In the first step we defined the services for which accessibility was calculated based on OSM classification codes (shown in Table 1.2). We included all relevant points and roads within the Alpine Convention perimeter plus a 50 km buffer so as to include services and roads in the perimeter's fringe.

OSM code	Label	Service category
2110	Hospital	Accessibility of hospitals
2083	Kindergarten	Accessibility of nurseries
2082	School	Accessibility of primary schools
2501	Supermarket	Accessibility of shops
2511	Convenience	
2504	Mall	
2201	Theatre	Accessibility of leisure facilities
2203	Cinema	
2007	Library	
2001	Police	Accessibility of police stations
2002	Fire station	Accessibility of fire stations
2012	Community Centre	Accessibility of community centres

TABLE 1.2
Open Street Map layers used to calculate particular service category.

All features coded as major roads, minor roads, highway links and paths unsuitable for cars (pedestrian and cycling access) were included into the road network (all line featuring code regions 511x, 512x, 513x, 515x). The road network dataset was rasterized into 100 x 100 m, assigning a value of 1 to all cells with a road and NoData to all cells without a road. Thereafter, the raster was used in the Distance Accumulation tool to generate distances along the road network (using only cells with a value of 1) from source points (services). The result was a continuous raster dataset with cell values representing the distance to the closest point (service). A separate distance accumulation raster was calculated for each service category. To calculate average distances to service within a NUTS 3 region, we weighted distances based on population density. Cells with higher population density contributed more to the average distance in a region than cells with lower population density, and cells with population density 0 did not contribute at all. Through adopting this approach, the final data represents population-weighted average distance to each service category.

Limitations: As Open Street Map data is an open geographic database updated by volunteers, it is likely that the included points (services) are not comprehensive and that, therefore, more services may exist than those included in the analysis. The same is also true with regards to roads. In addition, accessibility only shows distances and does not include any information on the quality and working hours of the services provided, which might be a significant factor in the given service's usefulness to the population, especially in more remote areas. Similarly, public transport options are not included. The analysis also does not give information on vertical distance to services, which might be significant in Alpine areas, especially when considering walking or cycling to services.

1.4.4 Survey with Alpine residents

The survey with the residents of the Alps was a joint effort of the whole WG. The survey was initiated during the first WG meeting in order to gather information from, and the opinions of, the Alpine population. In February and March 2023 the survey was formulated by a subgroup of the WG. Peter A. Rumpolt (University of Vienna) more actively contributed to the content of the survey, while the other members of the WG had the option to comment on it during April's meeting and in the weeks thereafter. Some of the WG members also volunteered to translate the surveys into Alpine languages (Kirsten Koop into French, Andrea Omizzolo with other Italian WG members into Italian, the Austrian WG members and Peter A. Rumpolt into German version). In addition, the survey was available in English.

The survey consisted of 27 content-related questions (see Annex 1.4) with the aim being to gather the opinions of the Alpine population about the quality of life in their areas and satisfaction with it overall, whilst also referring to the identified topics in particular. The questions concerned all five topics: environment, infrastructure and services, work and financial security, social relations, and governance, however, more emphasis was placed on the topics that have not been well covered within official sources of data, such as housing, and the accessibility and quality of services. Various basic data about the respondents was collected (gender, age, number of household members, country of residence, NUTS 3 region of residence, educational attainment, profession/occupation, employment status, and so on).

At first, the aim was to include all persons aged 15+ who live in NUTS 3 regions within the Alpine Convention perimeter. Since no significant funds were foreseen to cover the survey, the members of the WG were invited to disseminate the survey in the area. For the purpose of dissemination several materials were prepared: texts to be published online, on social media, posters for billboards and printed cards were available in all Alpine languages (see Annex 1.5). The dissemination took place between May 25th and August 16th 2023 when the survey officially closed. Through the efforts of the WG, information about the survey was posted on websites and social media of major Alpine organization, selected municipalities (especially within Slovenia, Germany and Austria), research and academic institutions, regional development agencies and other relevant institutions somehow related to the Alpine territory. Austria additionally sent out e-mails to over 1.000 Austrian municipalities located within the Alpine Convention perimeter.

We carried out constant monitoring of the sample, so as to ensure that a proper share of the population was surveyed according to the Alpine areas of the AC member countries (see Table 1.2 below). In July 2023 it was observed that Switzerland, France and Italy were behind the other countries in terms of recruiting sufficient numbers or respondents and, as a result, an online panel was ordered for these countries from Ipsos. Via this mechanism we collected the minimum number of responses initially planned according to the Alpine population (1.550). Since dissemination in other countries was more successful or their inhabitants were simply more willing t o respond, the number of all gathered units raised to 3.000 at the end of the survey.

In order to secure representative sample, several measures were undertaken:

- The sample was controlled based on geographical distribution (see Figure 1.6) and age categories.
- Education was also a control variable, however, no data was available for NUTS 3 regions.
- For analysis, weights were assigned to all the respondents in order to secure a representative sample (see below).

In addition, the distribution of respondents according to the type of area in which they lived was checked. In the sample 50% of respondents lived in urban areas: big city 7%, suburban area 9% and a town or a small city 30%. According to the 9th Report on the State of the Alps there are different accounts for how many people live in the Alps depending on what definition of a town/city is applied – out of a total population of about 14 million in the Alps, only 900.000 live in towns with 100.000 inhabitants (ca. 6,5%). Calculation of towns with populations of more than 50.000 inhabitants, comes to about 1,4 million people, or 10% of the Alpine population (Chilla *et al.*, 2022). Thereby for RSA 9 they have decided to apply the borderline of "*Alpine towns are defined as settlements having a minimum population of 5.000, and a population of at least 3.000 if they are not located right next to a larger town. Using this definition, there are now 8,5 million people in our analysis, or 60% of the population within the Alpine Convention perimeter, spread across a total of 780 Alpine towns*" (Chilla *et al.*, 2022, p. 6).

Country name	Population without 0–19-year age category	% among all population	Acquired responses	% - acquired responses	Weights	Number in the sample
Austria	4.524.621	20,5	889	29,63	0,6918	615
France	4.778.255	21,9	366	12,20	1,7951	657
Germany	1.266.135	5,7	302	10,07	0,5662	171
Italy*	6.788.773	29,8	787	26,23	1,1360	894
Liechtenstein	31.612	0,1	9	0,30	0,3333	3
Monaco	36.686	0,1	1	0,03	3,0000	3
Slovenia	1.325.332	16,1	404	13,47	0,4307	174
Switzerland	3.660.189	0,1	242	8,07	1,9959	483
Total	22.411.603	100	3.000	100		3.000

TABLE 1.3 Number of collected cases and weight applied for representative sample.

*Without big cities within NUTS 3 regions but out of AC perimeter.

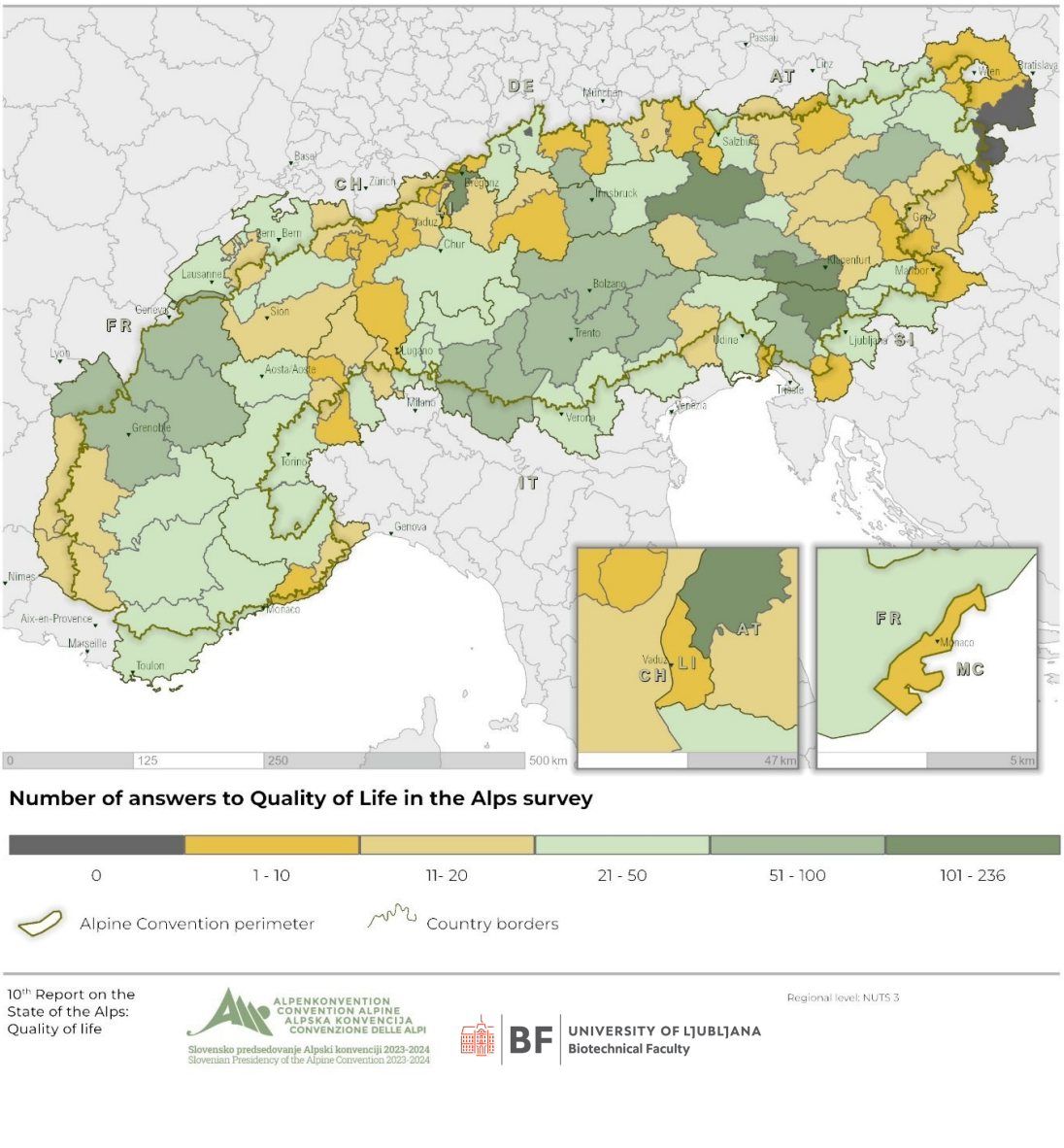


FIGURE 1.6 Geographical distribution of collected samples.

The analysis of the survey was performed using descriptive statistics and crosstabs. Since no national comparisons are integrated into the report, we have selected the type of the area that respondents live in as dependent variable. It follows, that most of the answers were analysed according to question 17.a concerning the type of area residents reside in (five categories were joined into three); either the data is compared on one chart, or separate charts were designed for each of the geographical types. In this way we could follow the data analysis and further reflect the situation in urban, intermediate, and rural areas. For some of the questions, infographics like word cloud were designed.

A field survey in selected Alpine municipalities in Austria

In Austria, additionally, a field survey was conducted in six Alpine municipalities within the Alpine Convention area (see Annex 1.6). Therefore, based on population development and population size, Statistics Austria's urban-rural typology, tourism and relatedness to Alpine Convention activities, a spatial typology of municipalities with the following characterisation was developed:

- Municipality type A: suburban, population increase in the last 20 years, rather not touristic;
- Municipality type B: rural, (slight) population decrease in the last 20 years, touristic, "Bergsteigerdorf" ("Mountaineering Village");
- Municipality type C: rural (peripheral), considerable population decrease in the last 20 years, non-touristic.

Finally, six municipalities—at least one for each of the three types—in five different Austrian federal states (Bundesländer) were selected as case studies in the context of the RSA 10: Eisenerz (municipality type C) in Styria, Lesachtal in Carinthia and Grünau im Almtal in Upper Austria (both type B) as well as Tullnerbach and Kaumberg in the Biosphere Reserve Wienerwald in Lower Austria and St. Andrä im Lungau in the Biosphere Reserve Salzburger Lungau and Kärntner Nockberge in Salzburg (each type A).

TABLE 1.4 Field survey in Austria – information on case studies and methodology.

	AT Case study 1	AT Case study 2	AT Case study 3	AT Case study 4	AT Case study 5	AT Case study 6
Spatial typology of municipalities	Type C	Type B	Type A	Type B	Type A	Type A
Municipality	**Eisenerz**	**Lesachtal**	**Tullnerbach**	**Grünau im Almtal**	**Kaumberg**	**St. Andrä im Lungau**
Federal state (Bundesland)	Styria	Carinthia	Lower Austria	Upper Austria	Lower Austria	Salzburg
Course lecturer (Univ. of Vienna, Geography)	Martin Heintel	Peter A. Rumpolt	Dominik Ebenstreit, Ulrike Stroissnig, Peter A. Rumpolt	Martin Heintel	Peter A. Rumpolt	Peter A. Rumpolt, Klemens Jeitler
Survey and questionnaire instructor	Martin Heintel, Peter A. Rumpolt		Peter A. Rumpolt	Martin Heintel, Peter A. Rumpolt		
Interviewer (Univ. of Vienna, Geography)	26 students	25 students + 1 lecturer	14 students	25 students	26 students + 1 lecturer	10 students + 1 lecturer
Respondents	the respective municipality's residents (with primary or secondary residence)					
Survey technique	face-to-face interviews based on a questionnaire (closed and open questions)					
Survey period	07.–08.07.2023	14.–16.07.2023	09.–19.11.2023	28.–29.05.2024	14.–15.06.2024	11.–13.07.2024
Responses (interviews completed)	194	155	82	132	122	72
Data input	Nicole Schütz		14 students	Nicole Schütz		

In 2023 the field survey was carried out in Eisenerz (194 responses), Lesachtal (155) and Tullnerbach (82), in 2024 the study was extended to Grünau im Almtal (132), Kaumberg (122) and St. Andrä im Lungau (72). The fieldwork was done as part of practice-oriented courses at the University of Vienna (Department of Geography and Regional Research). The survey was conducted personally by students as face-to-face interviews with the municipalities' residents. Including just minor adaptations due to the circumstances of the field survey (e.g. known locations) or aspects specific to Austria, the questionnaire used was the same as for the online survey (Rumpolt, 2023).

From the first two case-study surveys already conducted in July 2023 (Eisenerz and Lesachtal), 65 interviews/responses were added to the whole survey sample to complete the age categories missing due to underrepresented population age group 76 to 85 years in the online survey.

1.4.5 Good-practice collection

The purpose of good-practice collection was to prepare an overview of potential measures/instruments/initiatives that could contribute to securing better quality of life in the Alpine area. We focused on measures that could be implemented via spatial planning or regional planning. We sought good practice examples that refer to the Alpine situation and are relevant and applicable in the Alpine context (dispersed settlement, mountainous area and so on). Some of the examples have been identified already in the governance framework questionnaire: for example, multifunctional forests (DE, Bavaria), The Swiss Federal Policy for rural and mountainous areas (CH), and The French interregional governance of Alpine Massif (FR), promote the quality of human life through preserving and improving environmental conditions and the prudent and rational use of natural resources. These practices are not described in such detail as the following collection of good practices.

The governance questionnaire was filled in only by ministerial representatives and equivalent, however, the query for good-practice examples was stretched to all members of the WG. Examples needed to target one of the QoL RSA 10 identified topics, namely environment, infrastructure and services, work and financial conditions, social relations, or governance. The good-practice examples were derived from existing or previous Interreg projects (see www.keep.eu), ARPAF financed initiatives, state measures and so on. Each of the good-practice examples is described with the following elements (see also Annex 1.7):

- **Name of the measure:** name of the project, measure, initiative etc.
- **Quality of life topic:** select one of the five RSA 10 QoL topics – Environment / infrastructure and services / work and financial conditions / social relations / governance
- **Implemented by:** stakeholders in charge of implementation of the measure, e.g. ministry, regional development agency etc.
- **Time frame (year, period):** in what year, period was the measure implemented, also for what time period the measure is relevant.
- **Location:** in which location (country, region, local communities, other type of area) was the measure implemented.
- **Description of the measure:** explain briefly what were aims and objectives of the measure.
- **Description of (potential) impact on quality of life:** what were the results of implementing the measure; how has the quality of life changed.
- **Target groups:** who were the recipients of the results of the measure, choose among the listed options – youth / children / elderly / students / unemployed / migrants / women / farmers / tourists / NGOs / enterprises; under category "other" also possible to write other target group(s).
- **Funds (gov. level, multiple answers):** explain what funds were used to finance the measure; choose among the listed options – EU / supranational / national / regional / local / I do not know; multiple answers are possible.
- **Website/more information available:** if possible, please, provide us with the website where more information is available.

The purpose of this collection is to present examples of measures that have already been introduced to support a good quality of life and which might be transferred to other areas for the same purpose. The good practice examples can also serve as inputs for the formulation of policy recommendations. An overview of the collected examples is provided in Chapter 7, while the detailed information on each good practice are presented in Annex 7.1. The relevance and usefulness of the examples can also be evaluated in the terms of the process of identifying gaps.

1.4.6 How to read the Background Study

The Background Study consists of 8 chapters. The first chapter introduces the report's thematic presents the methodology and the working steps taken in the preparation of the report. The second chapter focuses on climate change as one of the megatrends and threats to the QoL in the Alps. Other factors influencing QoL are presented as well. The third chapter provides an overview of existing measures of QoL and how they depict the situation in the Alps. The fourth chapter is based on the prepared dashboard – the collection of indicators and maps according to the agreed concept of QoL. The data for the AC is compared to the EU average and situation. The fifth chapter is the report on the survey with the inhabitants of the Alps, while the sixth chapter elaborates upon governance frameworks to steer QoL. In Chapter 7, the good practice analysis is presented. Figures and tables in each of the chapters are numbered starting with the number of the chapter, whilst the number of the annexes correspond to the number of the chapter to which they add extra information. The concluding chapter 8 was added to the Background Study to elaborate on the findings of the analysis and expose the main challenges for QoL in the Alps.

In order to ease reading of the report, the concept of QoL as introduced in Chapter 1.4.1 has been elaborated upon graphically. The graphic representations of the content under each of the pillars follows the simple colour scheme: enablers are violet, maintenance is yellow, and the flourishing pillar is blue. The deviations in the colour of the maps is due to the fact that the selected colours more accurately represent the data. The overall applied colour scheme, see Figure 1.7 corresponds to the colour scheme of the Alpine convention corporate graphic design as far as possible. While selecting and applying the colours, the check for the colour blind was performed, using the following tools: Accessible colour palette generator and Chroma.js Colour Palette Helper.

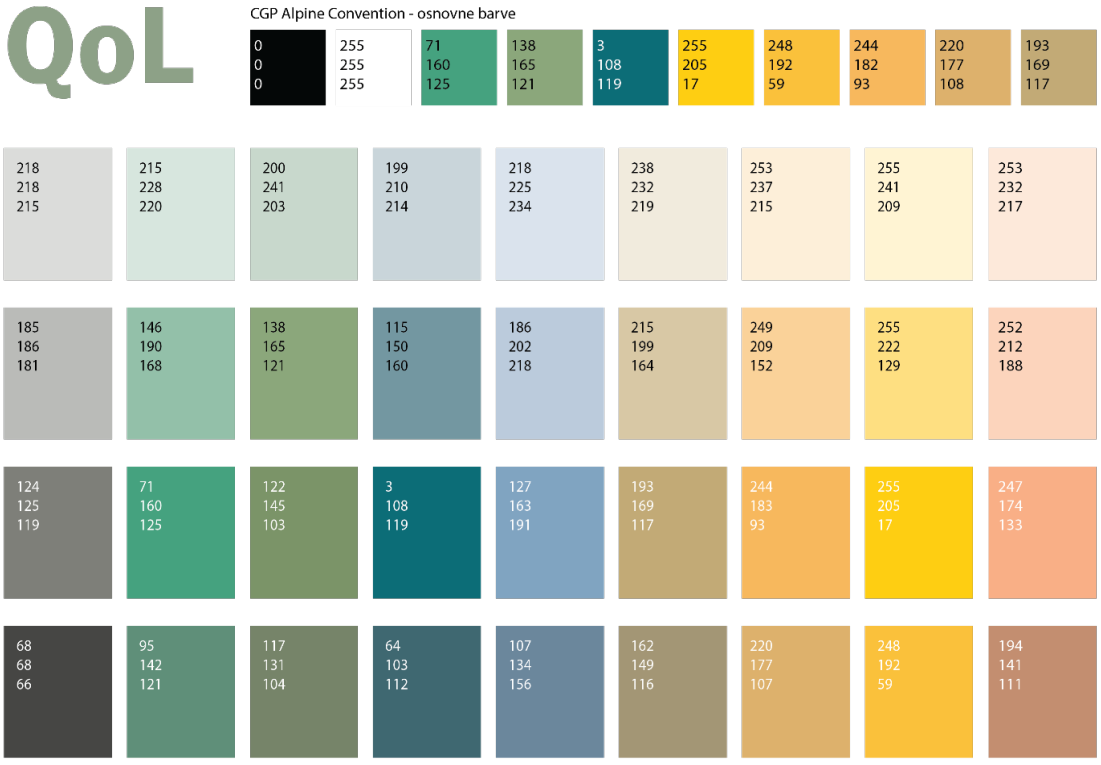


FIGURE 1.7
The colour scheme of the report.

Symbols were also designed to represent the major 5 topics that were identified as important for the quality of life in the Alps (see Figure 1.8).

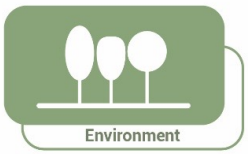
Topic of quality of life	Symbol with the text	Symbol without the text
ENVIRONMENT		
INFRASTRUCTURE AND SERVICES		
WORK AND FINANCIAL SECUITY		
SOCIAL RELATIONS		
GOVERNANCE		

FIGURE 1.8
Symbols illustrating each of the QoL topics.

1.5 Complementary studies on QoL in the Alpine area

1.5.1 ESPON Territorial Studies: Quality of Life in the Alpine Convention space

The ESPON EGTC has commissioned a consortium of Isinnova (Italy), Multicriteria Planning (Spain), the Research Centre of the Slovenian Academy of Sciences and Arts (ZRC SAZU; Slovenia) and the Carinthian University of Applied Sciences (Austria) to carry out a Territorial Study on the Quality of Life in the Alpine Convention Space, which will support the activities of the Slovenian Presidency and contribute to the implementation of the three priorities of the Multi-Annual Work Programme (MAP) 2023–2030. As part of the study, a participatory process was carried out in which the consultation of key experts and stakeholders from the Alpine Space was fundamental to ensure that the measurement of quality of life was legitimised by different actors and reflects the living needs and expectations related to the specificities of the Alpine Space. In this way, Territorial Quality of Life Living Labs were tested between May and December 2023 in the Canton of Ticino (Switzerland), Trento (Italy), the Koroška region (Slovenia) and Carinthia (Austria). The four Living Labs focussed on territorial quality of life and invited citizens,

statistical experts and administrative staff responsible for territorial development policies to participate in the lab's activities: 1) citizens to help identify quality of life priorities and objectives; 2) experts/statisticians to identify the data and indicators that should be measured in order to gauge quality of life objectives; 3) policy makers to implement integrated territorial policies that meet the citizens' expectations with regard to quality of life.

The final report of the study is expected to be published in February 2024. The preliminary results indicate high interest from the target groups in all four living labs with regard to territorial quality of life and its relation to the specificities of the pilot regions on the one hand and global impacts such as climate change, digital transition, demographic and cultural (lifestyle) change and governance change on the other. The results from the Koroška region, for example, show how necessary it is to adequately address territorial quality of life after the major floods in the summer of 2023. Before the shocking weather events, the region had above-average indicators for its ecological quality of life. Afterwards, the region found itself devastated and faced with questions about resilience strategies to natural hazards and climate change, (in)appropriate spatial planning and questionable accessibility to services of general interest. A forward-looking methodology for measuring territorial quality of life, as developed by several ESPON projects, could enable Alpine regions to better cope with such threats and challenges (Kozina, 2023).

1.5.2 Erasmus+ Alpine Compass project (CIPRA)

The Erasmus+ project Alpine Compass addresses the QoL of young people in the Alpine region and is led by CIPRA Slovenia along with CIPRA Germany, CIPRA France and CIPRA International. Based on a preliminary review of the existing literature, familiarisation with the ESPON methodology and a set of survey questions for the 10th Report on the State of the Alps, the partners in several working meetings developed an interview questionnaire composed of 23 questions. These were then shared with colleagues at ZRC SAZU, who had carried out activities on QoL within ESPON in the past. 15 in-depth interviews were conducted (5 in Slovenia, 4 in Germany, 4 in France and 2 in Liechtenstein) with young people from as many different areas as possible within the Alpine region. The results of the interviews will be used to further the project activities and will be presented in an article to be published on the partners' websites in February 2024 (Žemlja, 2023).

2 CLIMATE CHANGE AND BIODIVERSITY IN FOCUS

2.1 Forecast

With regards to living conditions related to the environment, the Alpine area has well-preserved natural resources which are especially relevant when it comes to adapting to climate change and the projected shifts in air temperatures and other effects on climate (ESPON, 2019). According to several studies the Alpine regions are anticipated to experience the following changes in their weather patterns:

- Increased temperatures and warming – average temperature in European Alps to increase by 2°C – more than two times the global average;
- Changing seasonal weather patterns, e.g. seasonal shifts in precipitation, global radiation, and relative humidity;
- Precipitation and temperature extremes are expected to intensify;
- Reductions in snow cover extent and duration at low elevations, a drastic decrease expected below 1.500 to 2.000 metres elevation; rise of snowline from 2.700/2.800 metres to 3.000 metres;
- Droughts and extended dry periods during summers, accompanied by reduced precipitation;

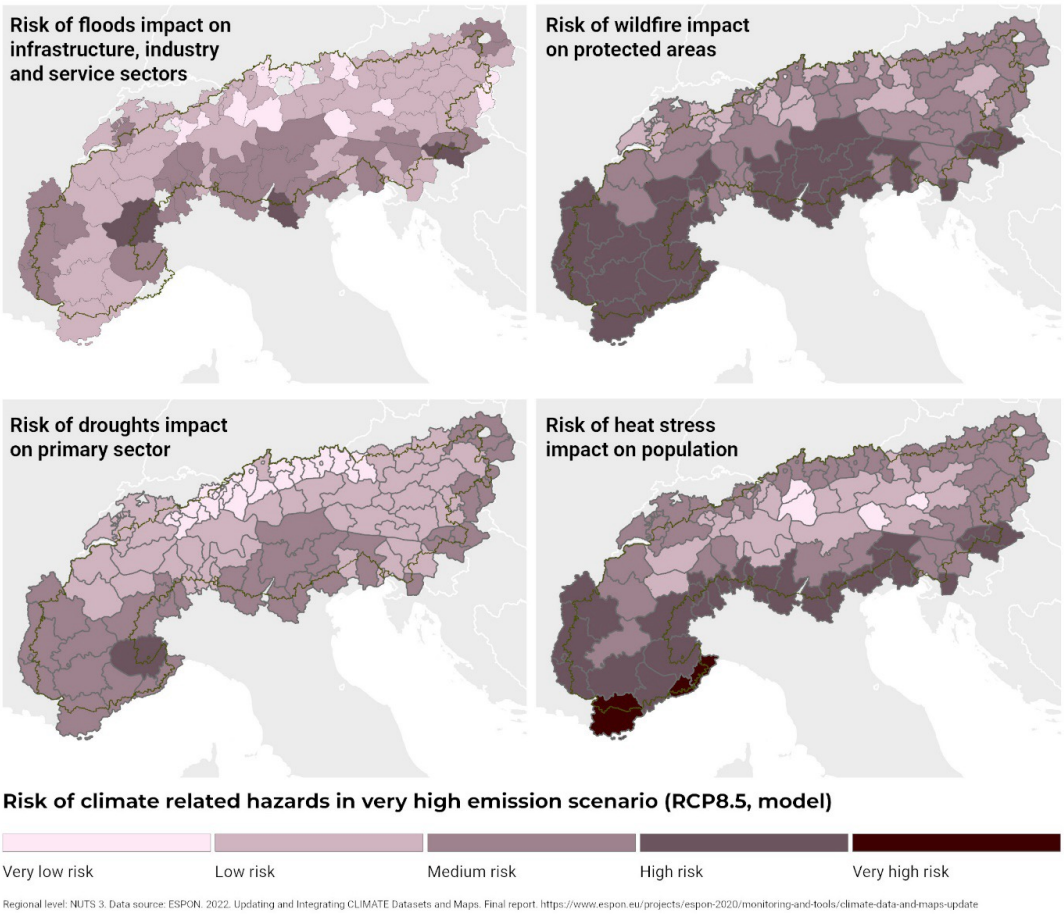


FIGURE 2.1 TO 2.4 Maps, presenting risks to the society because of climate change: the flood risk, the wildlife impact, drought impact and heat stress on population. (Source: ESPON, 2022)

- Torrential rain and floods, related changes in flow regimes and higher risk of landslides;
- Further changes to natural hazards are expected (Sources: Gobiet *et al.*, 2013; Auer *et al.*, 2007; Pavšek, 2023).

For the temperature the most probable scenario is a +3 degree rise globally by 2100, but the predictions for the Alps show a +5 degree rise over the same period. In Slovenia, for example, the temperature rise is 0,35 degrees per year. The Alps have started to warm up faster in the last 10 years. Since 1960, the temperature has risen by 2 degrees. Through warming, the intensity of weather events increases. The number of days with snow cover is lower and the number of hot days is increasing (Ogrin, 2023). The Alps are under the effect of the Rossby wave (planetary waves; a type of inertial wave naturally occurring in rotating fluids; they have a major influence on weather) which is becoming more stationary, and this is leading to longer periods of precipitation in the Alps, as well as longer periods of heatwaves.

It is projected that the quantity of precipitation will increase by 0,5% to 1% per decade in the Alpine regions. By the year 2100, heavy precipitation events, currently occurring every 8 to 20 years, are expected to happen approximately every 5 years, indicating a higher frequency. In addition, snow coverage is anticipated to decrease below elevations of 2.000 metres. Glaciers and permafrost are melting at a higher rate, and there is also a higher risk of landslides (Schindelegger, Steinbrunner & Ertl, 2022). The EEA has prepared more precise forecasts and these are presented in maps such as Figures 2.1 to 2.4 where the risk of climate related hazards in very high emission scenarios is depicted.

2.2 Impacts on the environment

Changes in the weather patterns due to climate change will bring significant impacts to the environment, human activities, and quality of life. The impacts on the environment are depicted in Figure 2.5, while issues pertaining to human activities are presented in Figure 2.6. For the environment, the following environmental impacts are noted:

- Soil degradation
- Wind erosion
- Decrease in glacier extent and volume
- Decrease in mountain permafrost areas
- Upward shift of plant and animal species
- Higher risk of species extinction in Alpine regions
- Increased permafrost thaw and an increase in the number and size of glacier lakes (high confidence)
- The spatial distributions of many plant species have shifted to higher elevations in recent decades, consistent with rising temperatures across most mountain regions (high confidence)
- Impacts on biological communities and animal species are also increasingly being reported, with species at lower elevations increasing in mountain regions, creating more homogeneous vegetation, and increasing risks to mountain-top species (medium confidence).
- Climate and cryosphere change → water cycle in mountains, including variable timing of glacier melt and snowmelt stream discharge (high confidence). These changes have variable impacts on water availability for people and economies, and contribute to increasing tensions or conflicts over water resources, especially in seasonally dry regions (medium confidence). (Sources: EEA; IPPC; Probst *et al.*, 2019; Adler *et al.*, 2022)

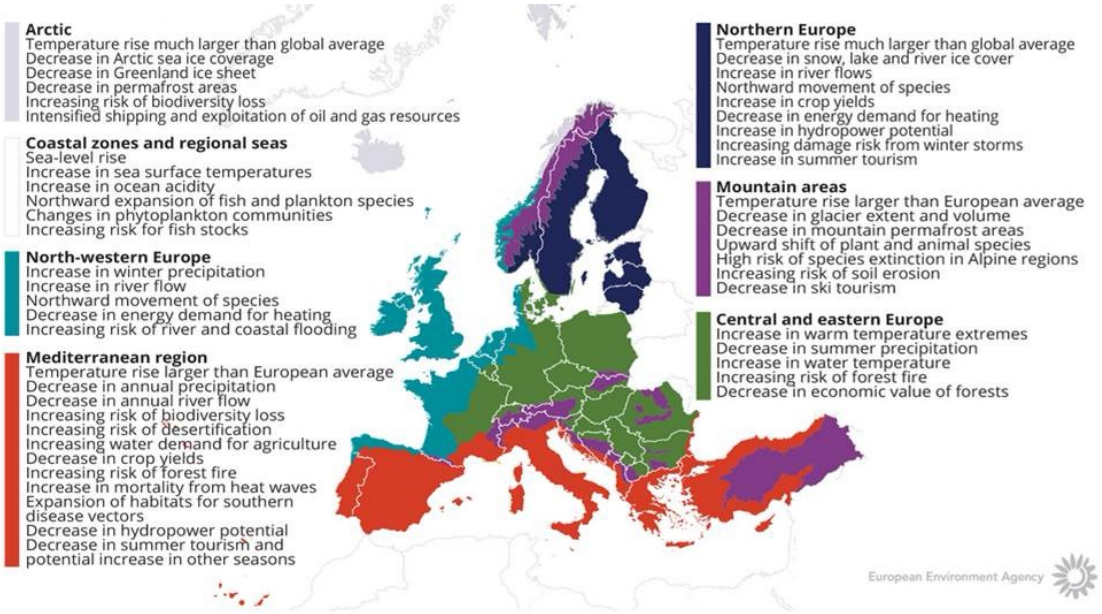


FIGURE 2.5
Key observed and projects impacts from climate change for the main regions in Europe. (Source: EEA, 2021)

2.2.1 Impacts on plants and biodiversity

Extinction

There is an increasing risk of local and global species extinction where species are not able to move to higher elevations or other cooler locations (high confidence), with risks from extreme events such as wildfire potentially exacerbating those risks (medium confidence). The topographic variation in mountains, such as elevation or aspect, may mean that some species will be able to survive in cooler microclimates. Mountain regions may act as refuges for some species from lower elevations if they can move into them. This may enable some species to persist in a region, though it may pose a threat to cold-adapted species, including endemics, which may be outcompeted (high confidence); invasive non-native species may become an increasing problem in some places (Adler *et al.*, 2022).

Greening

Warming is also causing the greening of European mountains. Researchers from the Universities of Lausanne and Basel have, together with colleagues from the Netherlands and Finland, investigated changes in snow cover and vegetation using high-resolution satellite data from 1984 to 2021. During this period, plant growth increased by 77% in areas above the tree line. This phenomenon of "greening" due to global warming is already well documented for the Arctic and has also been described in isolated cases when it comes to mountains. The new areas are being overgrown by plants and the vegetation is generally becoming denser and taller (Rumpf *et al.*, 2022).

Another author (Ogrin, 2023) has specifically noted the following impacts on alpine forests:

- Different altitude zonation
- Increased stress on forests (caused by sleet, bark beetle, heat)
- Weakening condition of beech forests due to heath stress
- Spruce will become extinct, and the forest stand will change
- The damage of forests will cause the forests to have a lower ability to function as carbon sinks
- More favourable conditions for invasive species.

2.2.2 Impact on natural hazards/mass movement

Stoffel *et al.* (2014) reported on current knowledge on climate change with regards to mass movement activity in mountain environments and illustrated characteristic cases of debris flows, rock slope failures, and landslides from the French, Italian, and Swiss Alps. It is expected that anticipated increases of rainfall in spring and autumn may alter debris-flow activity during the colder seasons (March, April, November, and December). At the same time, however, debris-flow volumes in high-mountain areas will depend on the stability and/or movement rates of permafrost bodies; destabilised rock glaciers could lead to debris flows without historical precedent in the future.

The frequency of rock slope failures is likely to increase, as excessively warm air temperatures, glacier retreat, permafrost warming and thawing negatively affect and reduce rock slope stability. Above 1.500 m, the projected decrease in duration of the snow season duration in future winters and springs is likely to affect the frequency, number, and seasonality of landslide events. In Piedmont, for instance, 21st century landslides have occurred more frequently in early spring and have been triggered by moderate rainfalls. However, events in autumn, characterised by a large spatial density of landslide occurrences may become more scarce in the Piedmont region.

2.2.3 Impact on water resources and glaciers

The Alpine fringe regions with bigger urban centres (especially the Po valley) will be those that are most affected by water supply and water conflicts. Due to melting of glaciers, more water is expected to run out of melting ice. The temperature in Alpine

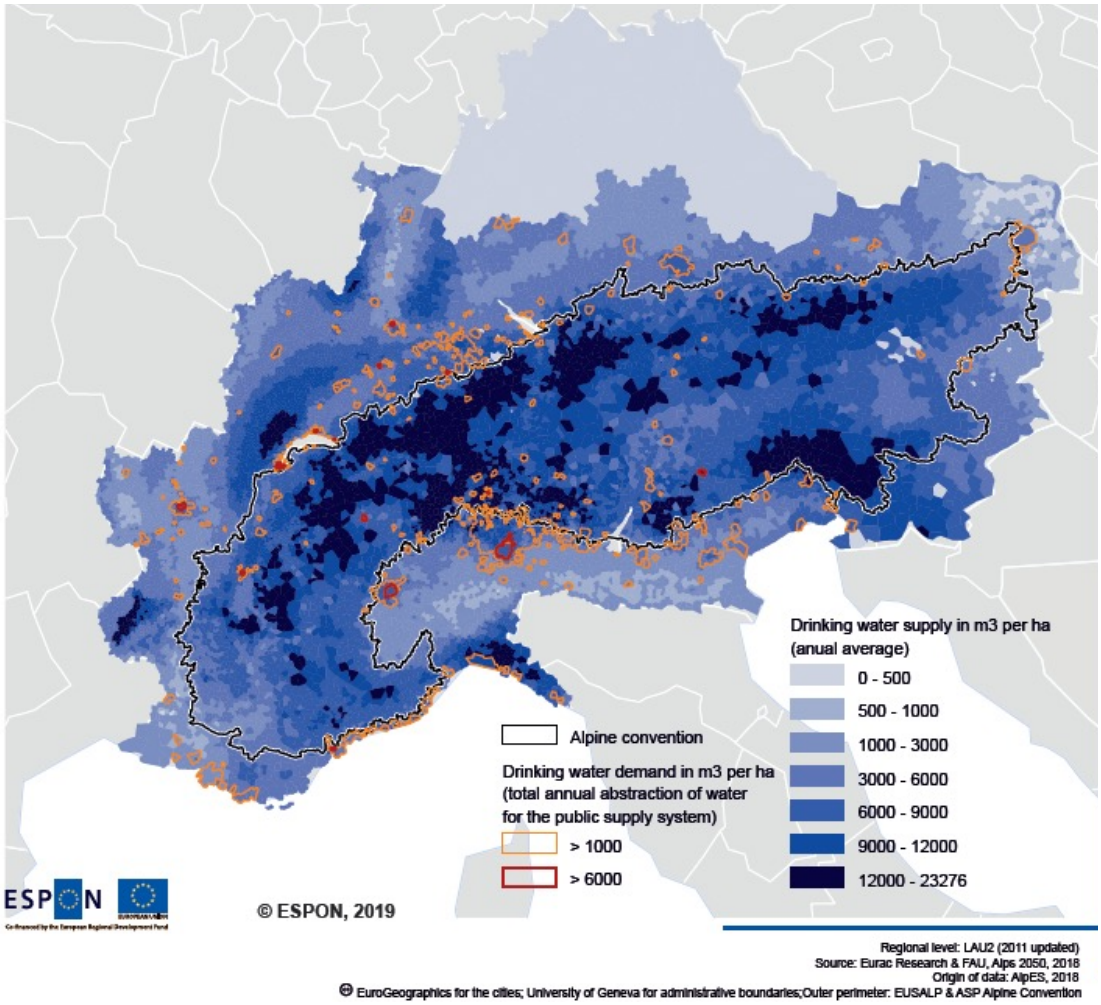


FIGURE 2.6 Drinking water supply demand in the Alpine mountain range. (Source: ESPON, 2023b)

bodies of water has been increasing and more precipitation is expected to fall during winter. Periods of precipitation are getting longer and more intense, with snow getting heavier, and more rain/snow falling at once. But once the glaciers disappear, the Alpine regions will be faced with water scarcity. The average amount of precipitation will stay the same, but there will be precipitation throughout the year (Schuler, 2023; Ogrin, 2023).

In addition to the volume of water available, there will also be changes in the temperature of the water. This could lead to decreases in the amount of oxygen; threatening certain water organisms (e.g. fish), and lead to biodiversity loss. More means will be required for cleaning Alpine lakes so that they do not become anoxic (Ogorelec, 2023). An additional threat to biodiversity is construction of hydropower plants which leads to landscape destruction.

The melting of glaciers also destabilises the terrain which can impact water bodies. The formation period of glaciers is becoming shorter, while the melting period is becoming longer. As glaciers shrink new sinkholes and abysses form. Alpine speleology is becoming more prominent. In last 10 years, the Alpine glaciers have lost 10% of their area. In the case of the Triglav glacier, 5 to 6 metres of ice have melted since 2022 (Pavšek, 2023). Ice will remain underground (ice caves) and more and more mountain caves and cave entrances will be discovered as the ice retreats. In addition, melting glaciers create more space for pioneer species, however, in the long run, habitats will run out of space for migration (Ogrin, 2023; Pavšek, 2023).

2.3 Impact on human activities and quality of life

Changing climate conditions have impacts upon human health, safety, and overall well-being since they influence the living conditions in the Alpine regions. The costs associated with infrastructure maintenance, transportation services, and building renovations may increase. Moreover, the warmer and drier climate is expected to lead to higher levels of air pollutants, such as PM10, PM2.5, and ozone, resulting in degraded air quality and associated negative effects on human health (Probst *et al.*, 2019; Schindelegger, Steinbrunner & Ertl, 2022). Whitaker (2023) prepared an overview on what social changes are caused by climate change. She reports that although authors such as Cunsolo and Ellis (2018), Hayes *et al.* (2018), and Palinkas and Wong (2020) have shown clear links between climate change and reduced well-being, the impact of the changes on people's sense of well-being remains understudied. Furthermore, she argues that "*the Alps are unique from other areas that have been the focus of climate change and well-being studies. They are relatively densely populated and located at the heart of a densely populated and industrialised country and continent. There is enormous variety in microclimates and microecosystems even across short distances, meaning changes and their effects on well-being might be highly localised*" (Whitaker, 2023, p. 2).

In its 6th Assessment Report, the IPCC dedicated a specific chapter to the climate change impacts on the mountains (Adler *et al.*, 2022). The following impacts are foreseen for the Alps:

- With regards to human activities – production and living conditions: soil degradation and wind erosion might harm agriculture and escalate the threat to agriculture, infrastructure, settlements;
- Changes in river flow regimes and landslides affect the production and use of energy in particular hydropower (high confidence);
- Decrease and challenges faced by the skiing tourism industry;
- Changes of landscape and especially change with regards to how to maintain landscape, e.g. less cultivation, less pasturing; abandonment of landscape (these are also related to changes of life style and other social changes);

- Mental health effects such as helplessness, chronic distress, and a general sense of anxiety may emerge in affected populations;
- Infrastructure: a need to change construction standards and ways of building in the Alps. Road and railway connections may be blocked (Sources: Adler *et al.*, 2022; Probst *et al.*, 2019; Schindelegger, Steinbrunner & Ertl, 2022; Berry, Bowen & Kjellstrom, 2010; Schirpke *et al.*, 2016; Einhorn *et al.*, 2015).

In the IPPC report, a table elaborated on specific key observed impacts on mountain communities, see Table 2.1. Banovec (2023) specifically argued, with regard to the potential threats to infrastructure and settlements, that the most endangered settlements in the Alps are those on debris cones, as they are most exposure to landslides and unstable terrain since melting permafrost will cause more debris flows. Due to heavy precipitation, coupled with inappropriate construction and spatial planning, new standards for dimensioning infrastructure due to extreme weather will be needed.

Foreseen impacts	References*
In some mountain regions, incidences of poverty are higher compared to other areas, with observed impacts of climate change intensifying the deterioration of socioeconomic conditions that support livelihoods, thereby exacerbating already existing conditions of non-climate-related vulnerabilities and livelihood insecurity (medium confidence).	Wrathall *et al.* (2014), Hunter *et al.* (2015), Brandt *et al.* (2016), Mastrorillo *et al.* (2016), Gautam (2017), Sagynbekova (2017), Cattaneo *et al.* (2019), Maharjan *et al.* (2020)
There is growing evidence of links between climate change impacts, migration, and mobility through a complex web of causal links (medium confidence). In mountain contexts, migration and mobility are indirectly impacted by climate change through adverse effects on mountain livelihoods that are dependent on mountain ecosystem services.	Iribarren Anacona *et al.* (2015), Stäubli *et al.* (2018), IDMC (2020), Wang *et al.* (2020)
Cases of entire settlements either being abandoned or relocated due to prolonged slow onset events such as water shortage, drought and heat stress have been reported.	Mueller *et al.* (2014), Nawrotzki and DeWaard (2016), Prasain (2018)
In contrast, place attachment is increasingly cited as one of the reasons for the immobility choices for some people. However, in some cases, vulnerability to climatic events contributes to the in-migration decisions of vulnerable populations exposed to hazards from downstream to upland areas.	Adams (2016), Dandy *et al.* (2019), Khanian *et al.* (2019), Islam *et al.* (2020)
Mental health issues associated with climate-related impacts have been reported with respect to climate anxiety and ecological grief and their effects on well-being. For example, the grief and loss associated with changes in glaciated landscapes, such as the 'death' of the Okjökull glacier in Iceland. However, there is limited evidence on mountain-specific cases and experiences that would allow for an assessment of the broader and longer-term impacts on mental health.	Trombley *et al.* (2017), Cunsolo and Ellis (2018), Clayton (2020), Sideris (2020)

TABLE 2.1 Overview of key observed impacts on mountain communities. (Source: Adler *et al.*, 2022)

*Please, refer to the original source for references as in the original source, as they are not included in references of Background Study.

Whitaker's study (2023) in Lombardy Alps aimed to identify perceptions and responses to climate, ecosystem, and landscape changes, and evaluate the impact on well-being. She conducted 67 interviews with smallholder farmers and beekeepers, and a questionnaire was completed by 82 residents. The study revealed two pathways of climate and social change impacts on residents' well-being. First, landscape and ecosystem changes caused by social changes affected well-being through disrupting connections to place and people's sense of identity. Second, weather changes were increasing anxiety and

worry linked to feelings of unpredictability, uncertainty, and loss of control. Together, both changes affected well-being by disrupting the reliability of place-based knowledge (see also Table 2.2).

Changes to the environment: landscape, ecosystems and weather patterns		
Cause of change	Social changes: ‣Rural abandonment ‣Rural depopulation ‣Abandonment of agriculture and the countryside	Climate change
Impact on environment	Changes to the landscape and ecosystems: ‣Abandonment of pastures and fields ‣Advancement of forest into former agricultural land and high-elevation pastures ‣Increased urbanisation in valley bottoms	Changes to weather/climate: ‣Increase average temperatures across all seasons ‣More dramatic, extreme and violent weather events ‣Less snow in winter ‣More frequent periods of droughts ‣Shifts in the timing of the seasons and disappearance of spring and fall
Impact on well-being	Distress associated with: ‣Disruption of sense of identity as tied to place and to an agricultural past ‣Disruption of sense of connection to place ‣Place-based knowledge becoming less reliable	Distress, anxiety, worry associated with: ‣Unpredictability of the weather ‣Uncertainty regarding the future ‣Loss of feelings of control ‣Loss of reliability of place-based knowledge

TABLE 2.2 Summary of changes and their effect on well-being. (Source: Whitaker, 2023, p. 10)

As a general evaluation, the IPCC report claims that: "*Climate change is projected to lead to profound changes and irreversible losses in mountain regions with negative consequences for ways of life and cultural identity (medium confidence). Intangible losses and loss of cultural values will become increasingly more widespread in mountain regions, mainly driven by a decline in snow and ice and an increase in intangible harm to people from hazards (medium confidence)*" (Adler *et al.*, 2022, p. 2276). However, there is limited evidence on the magnitude of the consequences.

Impacts on agriculture

It is predicted with medium confidence that the impacts will be largely negative in most mountain regions (globally). Agriculture has been negatively affected through increased exposure to hazards such as droughts and floods, changes in seasons, the timing and availability of water, increasing pests and decreasing pollinator diversity, which in turn have negatively influenced overall food production, dietary diversity, and the nutritional value of food (medium confidence). Negative climate impacts on pastoralism, such as drought induced degradation of rangelands and pastures, have affected livestock productivity and the livelihood of pastoralists, while other non-climatic factors, such as land use change and management, also play a role (medium confidence) (Adler *et al.*, 2022).

Impact on (skiing) tourism and recreation

Observed changes in seasonality (timing and extent) are negatively affecting mountain winter tourism and recreation (high confidence), and variably affect tourism and recreation activities in other seasons (medium confidence). According to Steiger *et al.* (2017), the ski industry is regarded as the tourism market most directly and immediately affected by climate change. For winter activities such as skiing, diminishing snow at lower elevations has challenged operating conditions (medium confidence), increasing the demand for and dependence on snow management measures such as snow-making

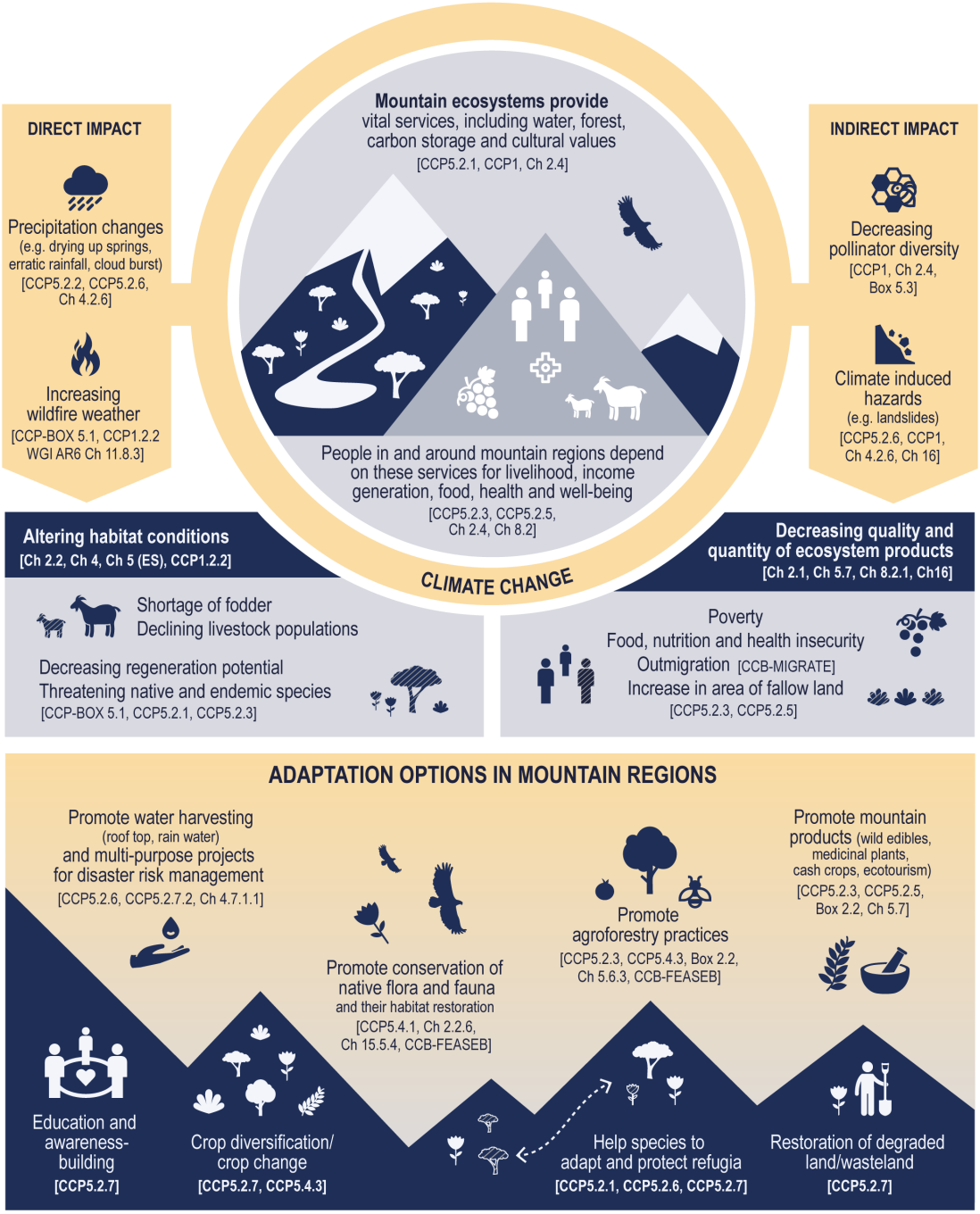


FIGURE 2.7 Impact of climate change on mountain social-ecological ecosystem services and products, and livelihoods of mountain people. (Source: Adler *et al.*, 2022)

(high confidence). Furthermore, due to shortened and more variable ski seasons, a contraction in the number of operating ski areas, has altered competitiveness among and within regional ski markets, and there are consequential implications for ski tourism employment and the value of property real estate. In some regions, options to change routes or shift seasons to reduce hazard exposure have been employed, with variable outcomes (medium confidence). In some cases, higher temperatures and extreme heat conditions at lower elevations have made some mountain destinations more appealing, increasing the potential for summer visitation demand (medium confidence; Adler *et al.*, 2022; see Table 2.3).

Foreseen impacts	References*
Since SROCC, the literature on climate change impacts on winter skiing tourism has remained dominated by studies focused on future climate change impacts and projected risks due to decreasing seasonal snow reliability (CCP5.3.1); most relevant when considering snow management and, in particular, snow-making.	Hock *et al.* (2019), Sauri and Llurdés (2020), AR6 WG1 Sections 9.5.3 and 12.4.10.4
Climate-induced hazards in mountains, such as rockfalls, negatively affect access to some climbing, mountaineering, and hiking routes in summer (medium confidence), with cases mainly reported in the European Alps.	Hock *et al.* (2019), Mourey *et al.* (2019, 2020)
Higher temperatures and extreme heat conditions at lower elevations have made some mountain destinations more appealing for human comfort, increasing potential summer visitor demands and opportunities for tourism and recreation in mountains, such as in the European Alps and the Catalan Pyrenees (medium confidence). However, there is limited evidence on similar trends in mountain regions outside of Europe.	Serquet and Rebetez (2011), March *et al.* (2014), Pröbstl-Haider *et al.* (2015), Steiger *et al.* (2016), Juschten *et al.* (2019a, b)

TABLE 2.3 Impacts on tourism and recreation sector. (Source: Adler *et al.*, 2022)

*Please, refer to the original source for references as in the original source, as they are not included in references of Background Study.

The IPCC (Adler *et al.*, 2022) has suggested several adaption measures. These include:

- Diversification of tourism activities to non-snow activities has been reported as an adaptation approach to maintaining economic viability in some winter ski areas, partly due to the high cost of running snow-making infrastructure in winter, for example in the Pyrenees (Europe) and Australian Alps.
- In some cases, managing water resource availability and demand for snow-making is reported, with destination and large-scale governance highlighted as critical aspects for managing trade-offs, including overcoming conflicts arising from competing demands for environmental resources and land use (e.g., in French Alps and in Scandinavia).
- For snow management, examples exist of dedicated climate services designed to enable better-informed decision-making on appropriate long-term adaptation (e.g., through a dedicated Copernicus Climate Change Service or real-time early warning systems).
- Barriers to adaptation strategies such as snow-making, for instance in Switzerland, have been linked to perceived economic constraints, as well as the social acceptability of these measures.
- Adaptation options to limit exposure to hazards in hiking, climbing or mountaineering activities include shifting the seasonal timing of these activities or changing routes entirely.
- In the French Alps, 'last chance' tourism has increased the appeal of some mountain destinations, resulting in enhanced visitor demands to witness the effects of climate change on iconic mountain landscape features such as glaciers.

Impact on climbing activity

According to IPCC and some researchers, climate-induced hazards are negatively affecting some climbing, mountaineering and hiking routes (medium confidence); impacting recreational infrastructure and activities (Adler *et al.*, 2022). Salim *et al.* (2023) looked at these specific changes through collating 1.071 questionnaires with the European alpinists (a quantitative social media survey). They discovered that climate change and its impacts are clearly observed and identified by recreational alpinists. The higher their awareness of changes, the more likely they are to adapt their behaviour and practice. The evaluation of climate change and related impacts are shown in Figure 2.8. They identified degraded routes, increased risk, frequency and magnitude of rockfalls, as impacts, and also noted that there was a need for more communication and development of climate-related services.

2.4 Mitigation options in support of good QoL

In order to mitigate climate change and support better QoL, the following mitigation measures have been suggested by CIPRA International:

- **Inclusion of the environmental and biodiversity crisis in all strategies and measures**, i.e. not focussing exclusively on greenhouse gas emissions or climate protection balances as these are not the sole measures of quality of life. In addition, structural measures for climate adaptation must not be implemented at the expense of biodiversity and well-being.

- **Overfulfilment of the national climate protection targets of Paris 2015**, as we are experiencing a doubling of global warming in the Alpine region compared to the global average. Include the climate and environmentally harmful emissions indirectly generated abroad by the Alpine countries through the production and consumption of goods and services. Human settlement in the Alpine region has always been associated with the intensive import and export of vital goods. This is closely interwoven with the surrounding lowlands and nearby large urban centres. The quality of life in the Alps cannot be guaranteed without such an in- and outflow of resources.

- **Regional action plans:** development of binding regional CO_2 reduction pathways with customised measures (cantons, federal states, departments) that take account of local economic, ecological, cultural and political characteristics should take place. This would enable the creation of regionally customised solutions which, in turn, increases the identification of the population and thus enables faster effective results than national plans and guidelines. As good practice one could check a regional action plan in the Canton of the Grisons: Green Deal for Graubünden (Kanton Graubünden, 2023). The plan includes measures such as:
  - Ongoing, regional CO_2 balancing (incl. impact assessment of existing and new legislation and government decisions);
  - Avoidance or reduction of additional CO_2 emissions and energy consumption as the top priority (they are more important and have a greater impact on the climate than offsetting and efficiency improvement measures);
  - Utilisation of regional resources (e.g. forests, agriculture, water, biodiversity in flora and fauna) adapted to the changed climatic conditions and adapted for many generations to come;
  - Dynamic subsidy/support practice: Granting of subsidies only with a limited period of time and decreasing amounts, followed by a subsequent ban (without continuation of the switchover subsidy) on certain applications (e.g. oil heating systems, so that replacement takes place promptly and is not postponed).

2.5 Adaptation

In addition, CIPRA International has also elaborated on potential adaptation measures to climate change that would address climate change in the context of QoL. They are:

- **Participation of the population:** involvement of the population in all steps of preparing and implementing adaptation measures to strengthen awareness, community spirit (cohesion) and social resilience through the participatory development of real opportunities for action at local level, via chambers of commerce and trade unions, associations, civil society initiatives, community programmes, etc. i.e. a bottom-up approach.

- **Legal regulations:** normative enforcement of new and proven technologies and applications (top-down government approach by means of directives, i.e. not relying solely on voluntary action).

- **Strengthening international co-operation in the Alpine region:** including the threat of climatic tipping effects with sudden or irreversible consequences in the Alpine region:
  - Introduction of a transboundary, sustainable water management system in accordance with the Declaration of the XVI Alpine Conference on integrated and sustainable water management in the Alps (Alpine Convention, 2020);
  - Mutual support in the development of cross-border disaster and emergency response plans at national and regional level: preparation of development of goals, identification of challenges and fields of action for water management, natural hazards, agriculture and forestry, energy, tourism, biodiversity management, health, and spatial development. Further, there is a need to prepare staged action plans until at least 2050 which include concrete adaptation measures, followed by dissemination and increased use of nature-adapted disaster prevention and adaptation measures (widening of river basins and thus both slowing down the flow instead of raising dams and increasing flow volumes and velocities).

- **Regional adaptation measures consist of various possible interventions:**
  - National economy: Adaptation of spatial planning to future climate scenarios (Reduction or dissolution of building zones in areas around villages that are increasingly threatened by avalanches, rockfall, landslides /debris flows and flooding. Resettlement of residents in areas with an increased risk of natural disasters. Building heat-resistant settlements /cities by storing rainwater, increasing shade, etc.).
  - Strengthening regional disaster prevention and emergency response organisations to mitigate the damage caused by severe weather events, forest fires, droughts and the consequences of thawing permafrost in the Alpine region.
  - Strengthening bilateral agreements between neighbouring regions for mutual assistance in the event of a major emergency.
  - Development of economic adaptation plans at a regional level to adapt the regional economy to climate change, focusing on the leading industries; gradual replacement of winter tourism with new types of tourism and sports offers, promotion of innovation in promising economic sectors; restriction of water supply in drought and dry periods with an impact on hydropower production, agriculture, etc.
  - Forest management: Intensive monitoring of the effects of climate change on mountain forests at all altitudes. Adaptation of forest management through pre-rejuvenation and diversification of the tree species spectrum, expansion of unmanaged forest areas at all altitudes to monitor changes and reactions of forest communities, maximum attention to protecting forests.
  - Agriculture: Development of regionally differentiated pilot projects to achieve climate-neutral agriculture in the Alpine regions. Subsequent evaluation and scaling of the positive results, e.g. good example of climate-neutral agriculture in Graubünden (Klimaneutrale Landwirtschaft, 2023).
  - Adaptation of mountain agriculture to climate-related changes (higher feed yields, changes in vegetation, use of other livestock and animal breeds) and their impacts on the consumer behaviour of the population in the Alpine region and beyond (less meat consumption, calls for a circular economy, better life cycle assessments, etc.).
  - Water management as a cross-cutting issue related to ecology, agriculture, energy production, drinking water supply, tourism: Regional implementation of transboundary water management in the Alpine region in accordance with the agreements in the Declaration on Integrated and Sustainable Water Management in the Alps (Alpine Convention, 2020).

2.6 Biodiversity in the Alps

2.6.1 An overview

The Alps are home to more than 30.000 animal and 13.000 plant species and are one of the most diverse ecoregions on Earth (WWF, 2004). Although the Alpine Convention provides a rigorous framework for nature protection and sustainable development and 35% of the area is under some protection status, the existing protected areas still cover only about 70% of the key biodiversity areas (Figure 2.8, Payne *et al.*, 2020).

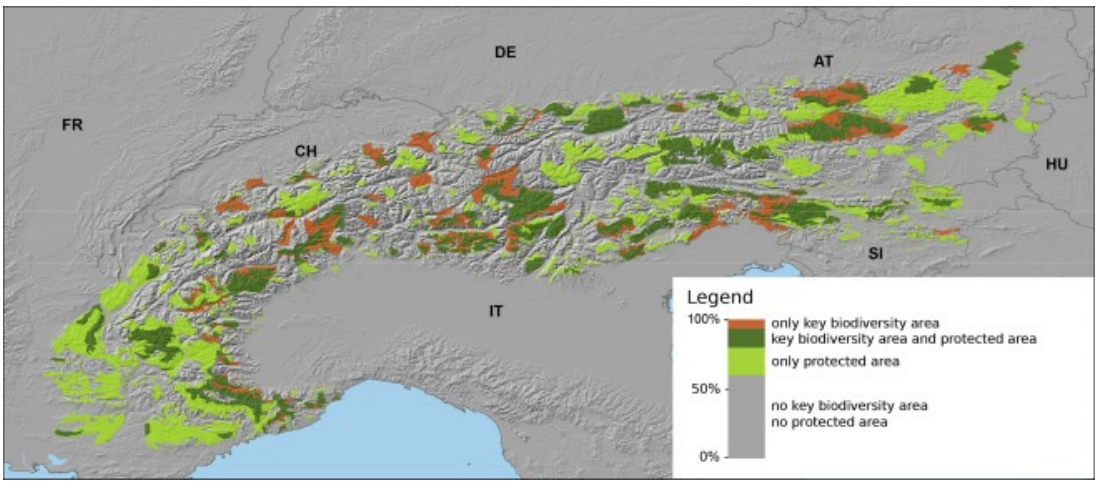


FIGURE 2.8
Overlap of biodiversity areas and protected areas in the Alpine convention perimeter. (Source: Payne *et al.*, 2020)

Biodiversity is relevant for quality of life as it secures ecosystem services for human society. Healthy ecosystems provide food, water, energy, climate regulation and are overall crucial for the human health and survival. Table 2.4 depicts the important ecosystem services in the Alps, as reported in the publication "Connecting mountains, people, nature", according to their function: if they have either provisioning, supporting and regulating function or have a cultural value (Svadlenak-Gomez *et al.*, 2014). To show this graphically, the various ecosystem services are also presented in Figure 2.9.

FIGURE 2.9
Ecosystem Services examples at Hoher Freschen (Vorarlberg/AT). (Source: Svadlenak *et al.*, 2014, p. 40).

(extract from poster prerared for greenAlps by EURAC) 1 = Provisioning service, 2 = regulation & maintenance service, 3 = cultural service Source: University of Innsbruck (Clemens Geitner & Richard Hastik), for recharge.green project

	Ecosystem Services	Description
provisioning	Provision of forest and agricultural products	Products obtained directly from ecosystems such as agricultural products, forest products and aquaculture products (includes production function of soils)
	Provision of fresh or potable water	Provision of fresh or potable water, including water filtering function of soils
supporting & regulating	Carbon sequestration and climate regulation	Carbon dioxide (and other greenhouse gases) sequestrated by the ecosystem for regulating the global atmospheric composition
	Air quality regulation	Mediation of toxic and other polluting particles in the air (e.g. dust) by the ecosystem -> ecological habitat quality
	Protection against natural hazards	Mediation/buffering of flows (mass, liquid, gaseous) for avoiding extreme events (floods, soil erosion, landslides, avalanches, storms, rock falls, ...)
	Ecological habitat quality	Overall habitat quality for wild plant and animal species. Habitat quality is (mutually) dependent on nutrient cycling, seed dispersal and pollination. Long term ecosystem stability (=resilience) and resistance against pests affecting human health and forest or agricultural production are an expression of high ecological habitat quality.
cultural	Aesthetical value	Experiencing the natural world (through different media), landscapes as source of inspiration or cultural values, and a "sense of place" in general, associated with recognised environmental features
	Recreational value	Value for recreational activities (e.g. walking, hiking, skiing, climbing, boating, leisure fishing and leisure hunting), possibility for relaxation, reflection, and general absence of "noise pollution"
	Intrinsic value	Value of ensuring the particular character of an ecosystem for future generations; the value of the ecosystem's existence for its own sake

Source: University of Innsbruck (Clemens Geitner & Richard Hastik), for recharge.green project

TABLE 2.4 Important ecosystem services in the Alps. (Source: Svadlenak-Gomez *et al.*, 2014, p. 39)

Schirpke *et al.* (2021) evaluated what happened to the ecosystem services in the Alps in the period between 2000 and 2018 with regards to different land-use/cover changes. They concluded that ecosystem services mostly declined due to changes of agricultural land towards other uses such as abandoned land, forests, and settlement areas. The authors observed a difference in services according to different type of settlement areas, e.g. changes in employment hubs and residential municipalities were below average, but there was a further decline in provisioning ES, due to the increasing urban sprawl. Rural retreats had a particularly strong decrease in many cultural and regulating ES values, with the exception of the positive effect on the climate (R9), which occurred due to an increase in forests and abandoned land (including heathlands, transitional woodlands, and shrub) on former agricultural land. However, provisioning ES also increased above average, apart from fodder production (P1) and agricultural food production (P2; see Figure 2.10). Across all ES, positive trends only prevailed over negative ones in dynamic rural areas and traditional agricultural regions. In spatial terms, the greatest changes occurred in the Southern Alps in Italy and Slovenia, and the Western Alps were more affected by changes than the Eastern Alps.

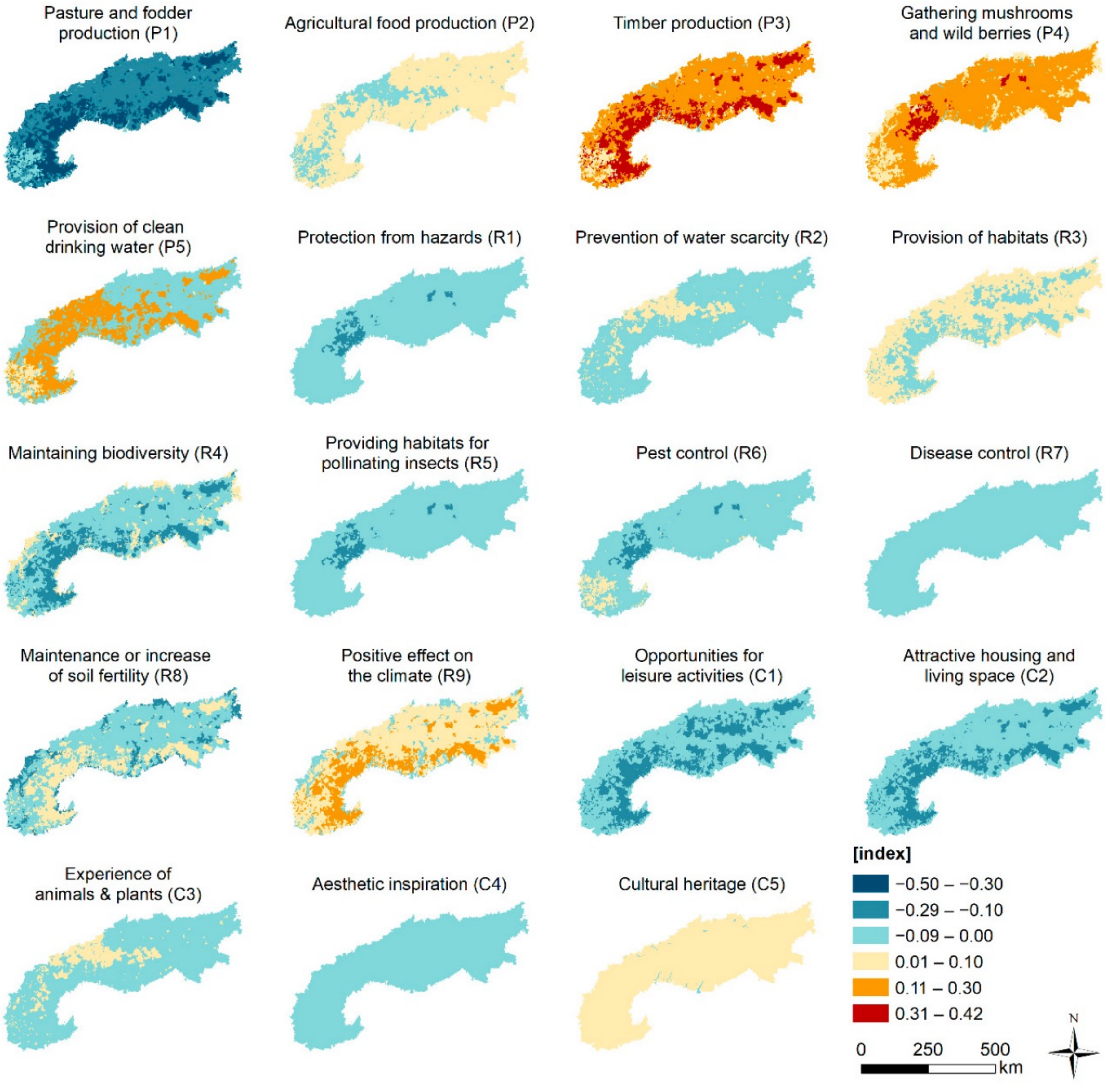


FIGURE 2.10
Changes in ES values between 2000 and 2018 across the European Alps. Only agricultural land-use/cover changes (crop cultivation, permanent culture, fertilized grassland, unfertilized grassland) that were present in 2000 were considered. Thus, these maps illustrate the changes in agricultural land to other land-use/cover changes (including abandoned land, forest, and settlement areas). Authors own elaboration. (Source: Schirpke *et al.*, 2021)

Changes of ecosystem services might be explained by various factors, one of them being the so-called "biodiversity crisis" connected to the 6th mass extinction in the history of the world (Diaz *et al.*, IPBES, 2019). The term biodiversity crisis describes the threats to species and their potential extinction because of the environmental pressures that humans are causing. The consequences are twofold: 1) the species become extinct or 2) the species that are not at immediate risk decrease in quantity which endangers other species that depend on them. Scientists estimate that vertebrate species have declined by an average of 70% in the last half century (Greenfield, 2022). Altogether, five major threats were identified including: land and sea use change, pollution, species overexploitation, climate change and invasive species and disease (see Figure 2.11 for some examples: WWF, 2020).

FIGURE 2.11 5 threats to biodiversity as identified by WWF. (Source: WWF, 2020)

More precise information on the speed of loss of species is provided in Table 2.6, which also predicts what will happen until 2100 depending on human behaviour. According to the data available, if we continue the current model of land use and human activity, the land area converted to human use will rise by to 49% in 2100 and around 17% of species will be lost. Between 1970 and 2018 Europe experienced an 18% fall in its wildlife population, which resulted in a rapid decrease in the population of certain species, such as frogs, salmon etc. Scientists have conducted analysis of more than 147.500 species for the IUCN Red List, and found that more than 41.000 are threatened with extinction (Greenfield, 2022).

Year	Population	Land area for human use	Loss of species in ecosystems
1800	0,9 billion	7,6%	-1,8%
1900	1,7 billion	16,9%	-4,9%
2000	6,1 billion	30,3%	-13,6%
2100 (green model)	8,7 billion	33,4%	-11,6%
2100 (current model)	12 billion	49,1%	-17%

TABLE 2.6 Prediction of the loss of species until 2100. (Source: Iberdrola, 2023)

2.6.2 The role of biodiversity in quality of life

The role of biodiversity on quality of life in the Alps was elaborated upon more during the joint workshop of the WG RSA 10 and the Alpine Biodiversity board that took place on September, 27th 2023[2]. Several key points emerged during the discussions.

Biodiversity was recognized as a good resource for life and work since it plays a pivotal role in food production and is closely linked to the quality of landscapes, thereby enhancing QoL. Participants emphasized that biodiversity is an integral part of the environment which influences its resilience, carrying capacity, and overall quality. With regards to

[2] The participants of the Workshop on Biodiversity and Quality of life, September 27th 2023 were: Carolina Adler (Mountain Research Initiative), Agostion Agostinelli (Federparchi), Paolo Angelini (Ministero

dell' Ambiente), Andreas Bartel (Environmental Agency, Vienna), Tadej Bevk, David Klepej, Naja Marot and Pina Klara Petrović Jesenovec (all UL BF), Lisa Capriglia (Ministero dell'Ambiente), Matteo Decostanzi (JS Alpine Space Programme), Stefano Chelo, Claire de Kermadec, Giulia Gaggia, Živa Novljan and Stephani Wolff (all Permanent Secretariat of the Alpine Convetion), Christian Drechsler (Arge Alp, Tyrol), Karin Jehle (Environmental Office, Liechtenstein), Tomaž Miklavčič and Blanka Bartol (Ministry of the Natural Resources and Spatial Planning), Evelyne Navillod (Autonomous Region of Aosta Valley), Thomas Otte (Federal Ministry for Housing, Urban Development and Building), Peter A. Rumpolt (University of Vienna), Ann Winkler (WWF), Serena Arduino (CIPRA International).

socio-economic aspects, biodiversity holds significance in various economic sectors, including Alps-relevant tourism, where areas rich in biodiversity tend to attract more tourists. However, it was acknowledged that these sectors can also exert substantial impacts on biodiversity. Soil, as a crucial component of an ecosystem, was highlighted for its role in supporting biodiversity, particularly in terms of food production and water quality.

The discussion of biodiversity's roles extended across three levels: environmental, socio-economic, and personal. At the environmental level, biodiversity contributes to resilience, carrying capacity, and overall environmental quality, whereas with regards to socio-economic issues, it impacts food production, energy resources, green infrastructure, and public health positively. Moreover, biodiversity was noted to have a personal dimension, influencing health, recreation, and individual well-being. When considering differences between urban and rural areas, it was noted that urban settlements often face greater pressures when it comes to issues of biodiversity.

The positive links between biodiversity and QoL were found to be consistent across urban-rural typology. Participants emphasized the importance of green spaces in both urban and rural settings, as they provide various ecosystem services and are multifunctional. Biodiversity's role in "unsealing" the land and enhancing the quality of green spaces was underscored, particularly in terms of climate resilience. The cultural significance of biodiversity was also highlighted, emphasizing the need for society to understand its importance. During a discussion it was emphasized that biodiversity loss often leads to negative consequences. Biodiversity plays a vital role in ensuring good mental health and accessibility to green areas, making it a crucial factor in securing overall QoL.

A great amount of discussion was dedicated to the knowledge gap, namely the lack of information available on the contribution that biodiversity makes to QoL, as well as more general information on the state of biodiversity in the Alps. Financial valuations of ecosystem services, computer-based monitoring systems, and periodic assessments were cited as effective tools for measuring the impact of biodiversity on QoL. Additionally, the following measures or measuring approaches were suggested to improve the situation with regard to measuring the impact of biodiversity on QoL:

- **Green spaces accessibility:** Participants highlighted the importance of measuring accessibility to green spaces and the quantity of green areas. These measurements were linked to mental health, as improved accessibility to green spaces has been associated with positive effects on well-being.
- **Resilience and vulnerability assessments:** Vulnerability assessments can help determine if areas with higher biodiversity are more resilient, especially in the face of climate changes. Comparisons between biodiverse regions and monoculture agriculture areas, in terms of their water requirements and economic contributions, were suggested as valuable measures.
- **Economic assessments:** For example, the role of biodiversity in supporting pollinators and its impact on agricultural productivity could be quantified, whilst comparing the economic performance of biodiverse agriculture versus monoculture agriculture was also recommended.
- **Local knowledge:** Engaging local initiatives and local ecological or environmental groups can provide valuable data and insights into biodiversity in different areas.
- **Experiments and indicators:** Conducting experiments to measure the effects of varying levels of biodiversity and employing different indicators to assess environmental quality were proposed.
- **Defining desired values** is crucial in setting specific goals for biodiversity preservation.
- **Perception and public image:** Understanding how biodiversity is perceived by the public is essential. Analysing photos shared on social media which depict biodiversity in different areas was suggested as a way to explore public perceptions. Biodiversity was acknowledged to sometimes have a negative public image due to regulatory implications that can restrict certain activities; for instance, agriculture.

- **Exploring different impacts:** Biodiversity can have various impacts on different aspects of QoL. These impacts should be explored comprehensively.
- **Quantitative measurement challenges:** This approach can be challenging due to the multifaceted nature of both concepts (QoL and biodiversity).
- **Surveys and focus groups** to measure public perceptions and attitudes toward biodiversity.
- **Comparative studies,** particularly on living in different areas, could provide insights into how biodiversity contributes to one's QoL.
- **Distance to nature:** Assessing the proximity of individuals to nature, services, and infrastructure was suggested to explore their relevance to QoL.
- **Local-level measurement:** Initiating measurements at the local (micro) level was advised, as the state of biodiversity is connected to higher governmental levels (regional and national).

The workshop concluded by stating what measures should be applied to empower the role of biodiversity in securing a high QoL. Empowering biodiversity's role in securing a high QoL involves a range of measures. These include implementing wildlife corridors and supporting ecological connectivity to enhance habitat connectivity. Territorial governance initiatives, such as biosphere establishment, strive to balance human development with biodiversity preservation. Measures aligning food production with biodiversity conservation are essential, particularly for pollinators and agriculture. Fostering a deeper understanding of biodiversity's role, educating stakeholders, and strengthening resilience, especially against climate change, are also key priorities. Developing monitoring systems, promoting nature-based solutions, increasing public awareness, and tailoring approaches to specific contexts are essential. Additionally, quantifying the economic value of biodiversity and collaborating with environmental groups can help secure funding and promote the significance of biodiversity conservation for securing a high QoL.

3 ANALYSIS OF QUALITY OF LIFE IN THE ALPS – EXISTING RESOURCES

3.1 General overview

The averages of Alpine countries and regional values reflect higher QoL and higher satisfaction with QoL compared to other EU countries, except for indicators where a lower indicator value reflects a better situation; for instance, a lower crime rate. Existent indicator values vary across Alpine countries and regions. As a result, some regions or countries are more successful in securing good QoL than others; leading to correspondingly different levels of satisfaction with QoL dimensions. An average situation is described based on the UN human development index, EUROSTAT platform data, the OECD Regional well-being data, the OECD Better life index and the Report on the Quality of life in European cities.

Alpine countries notably excel in certain elements compared to EU averages, particularly in terms of income, health, and life satisfaction as indicated by the OECD Regional well-being assessment. The higher indicator values in the health domain can be attributed to all Alpine countries having longer life expectancies than the EU average. This observation is also confirmed by the OECD Better Life Index, where all Alpine countries with a value of 7,3 surpass the EU average (only 5,4). Regarding income, Alpine countries generally outperform the EU average as well. According to the OECD Better Life Index, the average for the Alps is 4,7, whereas the European is 3,6. The difference is similarly significant when referencing the OECD Regional well-being figures, with the Alpine average being 5,4 whilst the EU's average is 3,9. In the sphere of life satisfaction, as per the OECD Regional Well-being data, Alpine countries exceed the EU average of 6,0, with a value of 7,3. Nevertheless, these scores possess variability across the Alps. Generally, perceived life satisfaction in the regions is higher than the national value in France, Austria, Italy, and Switzerland, whereas it is lower in Slovenia and Germany. In general, Alpine countries exhibit higher values for the following QoL topics: housing conditions, air quality, living environment, jobs, and social relations. Overall, safety is another domain where Alpine countries present a more favourable situation compared to the EU. This is evident in the lower percentage of the population reporting instances of crime or violence. France is an exception in this case, reporting a higher value.

Considerable variation in indicator values exists across certain QoL topics in Alpine countries as shown in the Figure 3.1. For instance, the domain of jobs demonstrates distinct disparities among Alpine countries, with figures ranging from 5,8 for Italy to 9,4 for Switzerland. Consequently, the collective Alpine average of 7,9 surpasses the EU average of 7,3 in this category. In specific QoL domains, Alpine regions in all Alpine countries consistently exhibit higher indicator values compared to either the EU average or the overall national averages within the Alpine countries. These regions notably outperform national values in education-related topics. Likewise, in the areas of jobs and health, Alpine regions tend to score higher values compared to the national scores for each country. However, income is the topic where Alpine regions typically registering lower values than their national counterparts, except for Switzerland. Housing is another category where Alpine regions generally score lower than the national averages of each Alpine country.

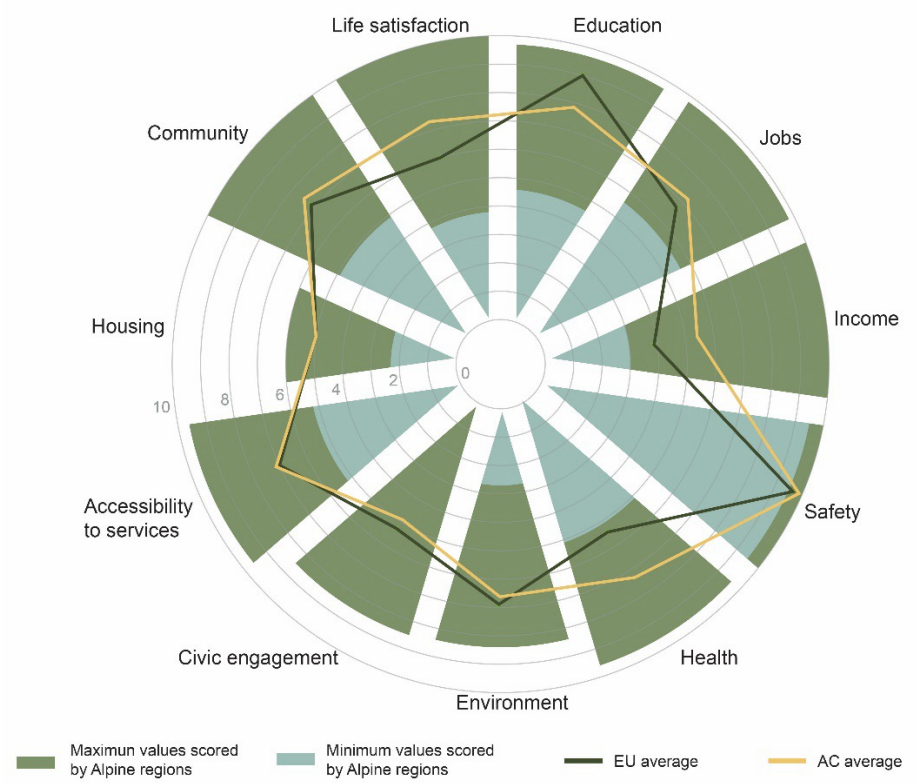


FIGURE 3.1 QoL topics across Alpine regions; source: OECD Regional well-being: note: data for Liechtenstein and Monaco is unavailable, EU average does not include data for Bulgaria, Croatia, Cyprus, Malta, and Romania.

Certain QoL aspects in Alpine countries fall below EU averages. Governance is one such domain, with the indicator for population trust in the European Parliament nearly 5% behind the EU average (EU average is 49%, whereas the Alpine average stands at 44,2%). Similarly, civic engagement is another indicator showing a lower value in Alpine countries compared to the EU average. The Alpine average for this aspect is 4,9, while the EU value ranges from 5,2 to 5,3, according to source. This lower score primarily stems from the reduced average in Alpine countries for the "Stakeholder engagement for developing regulations" indicator, and notably lower values in two Alpine countries (Slovenia and Switzerland) for the "Voter turnout" indicator. Education is another topic in which Alpine countries demonstrate an average below the EU by 0,2 points. According to OECD Regional well-being, the EU average is 8, while the Alpine average is 7,8; according to OECD Better life index, the EU average is 7,1, with the Alpine average being 6,9. Most Alpine countries report higher indicator values, but Italy notably reports significantly lower values for this indicator, mainly due to a lower proportion of the population with higher education (20,3%, compared to the EU average of 34,3%); resulting in a lower overall Alpine average. According to OECD Regional well-being, the environment is another domain where Alpine countries score lower average values compared to the EU (the EU average is 6,9, while the Alpine average is 6,6). This discrepancy primarily arises from lower indicator values in two Alpine countries; Italy and Slovenia.

3.2 Human Development Index

Index description

The Human Development Index (HDI) is an indicator, prepared by United Nations for the global level, and serves as a concise indicator of overall progress in important aspects of human development: living a long and healthy life, acquiring knowledge, and attaining a reasonable standard of living. Composed as a geometric mean, the HDI incorporates normalized indices for each dimension. The health dimension of the HDI is evaluated based on life expectancy at birth. The education dimension is determined by considering

the mean years of schooling for adults aged 25+ years, as well as the expected years of schooling for children who are at the age of entering school. The standard of living dimension is assessed by taking into account the gross national income per capita. HDI data is accessible at both national and regional (NUTS 2) levels (for Slovenia even at NUTS 3 level), and covers countries such as Austria, France, Germany, Slovenia, Switzerland, and Liechtenstein. The most recent available data corresponds to the year 2021.

Note: The HDI encompasses only three domains – education, health, and economics – and omits areas like environment, social security, and governance, thereby providing only a partial picture.

Situation in Alpine countries and regions

Alpine countries generally have a HDI value equal to or higher than the EU average of 0,895. Similarly, the majority of Alpine regions also surpass the EU average HDI. However, two regions in Austria (Burgenland and Lower Austria), one region in Italy (Aosta Valley), and two regions in Slovenia (Koroška and Primorsko-notranjska) show slightly lower HDI values. In the Austrian Alpine regions, the subnational HDI generally falls below the country's average, with only two regions (Tirol and Salzburg) surpassing the national average. Within France, one of the Alpine regions (Rhône-Alpes) boasts a higher HDI than the national average, while the other Alpine region (Provence-Alpes-Côte d'Azur) has a lower HDI. In Germany, Bavaria demonstrates a higher HDI compared to the national average, and the majority of Italian Alpine regions also surpass the national average, with only Aosta Valley having a slightly lower HDI. In Slovenia, the Alpine regions generally exhibit lower HDI values than the national average, although one region (Osrednjeslovenska) boasts a higher HDI, and another (Gorenjska) matches the national average. Alpine regions in Switzerland, for the most part, possess HDI values that approximate the national average of 0,962. The value of HDI in Liechtenstein is 0,935, surpassing both the EU average and the average of Alpine countries.

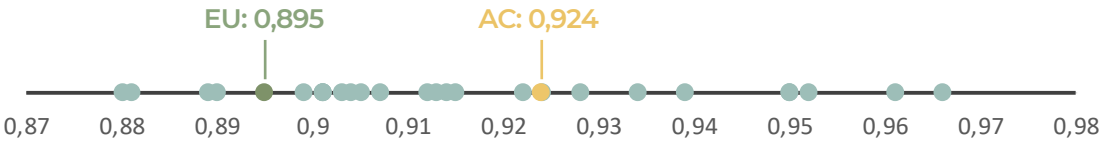


FIGURE 3.2 Subnational HDI in Alpine NUTS 2 regions. (Source: Global Data Lab, 2021; note: AC (Alpine countries) average does not include data for Monaco; in EU average data for Malta is missing)

3.3 EUROSTAT Quality of Life platform

EUROSTAT provides an overview of factors and aspects related to the quality of life, categorized into various dimensions. These dimensions encompass material living conditions, housing conditions, employment, education, health, time use, social relations, safety, governance, and environment. Together, they contribute to determining overall life satisfaction. Each dimension is evaluated using a set of statistical indicators, which consider both objective factors[3] (such as income, housing conditions, and work situation) and subjective evaluations[4], taking into account individual needs and resulting in varying levels of satisfaction. For each dimension, two different indicators are presented: one indicating the satisfaction level of individuals, and the other offering objective information regarding that particular dimension. These indicators cover EU countries including Austria, France, Germany, Italy, Slovenia, and Switzerland at a national level The most recent data available for the indicators vary, with some subjective indicators dating back to 2013, while others pertain to 2018 or more recent years.

Situation in Alpine countries

Table 3.1 reflects the situation of objective indicators in the Alps. As visible from the comparison in the last column, Alpine countries score higher than the EU average in all the indicators except for some of the national situations. The most unanimous indicator is life expectancy at birth and, from this, it can be concluded that Alpine residents have longer life expectancy than an average European. They also work longer weekly working

[3] Objective indicators provide a factual representation of specific dimensions. Material living conditions are assessed through annual median equivalised net income, housing conditions through the overcrowding rate, employment through the employment rate, time use through average weekly working hours, education through the share of the population with high educational attainment level, health through life expectancy at birth, and environment through urban population exposure

to air pollution by particular matter. The data for environmental indicator refer to 2019, health indicator to 2021, while employment, time use, and education data pertain to 2022. For the domains of material living conditions and housing conditions, most of the Alpine countries have data for 2022, except for Switzerland, which has data for 2021.

hours and have a higher percentage of employed persons aged between 15 and 64 years. The highest employment rate is scored in Germany (76,9%) and Switzerland (79,5%), and the lowest in Italy (60,1%) and France (68,1%). In general, except for Italy and Germany, they are also more educated than an average European. (Slovenia 73,1%, Austria 74%, Germany 76,9%, Switzerland 79,5%).

Indicator	Definition	EU average	Alpine countries performance
Annual median equivalised net income	The total annual income of a household, available for spending or saving, divided by the number of household members	19.083 EUR	**Higher (CH, DE, AT and FR) Lower (SI, IT)**
Overcrowding rate	The percentage of the population living in an overcrowded household, where the minimum number of rooms per person is not met	16,8%	**Lower (+), except for IT**
Employment rate	The percentage of employed persons aged between 15 and 64 years compared to the total working-age population	69,8%	**Higher, except for IT and FR**
Average weekly hours	The usual number of hours worked per week	31,5	**Higher (between 31,6 to 35,7 hours)**
Population by high educational attainment level	The percentage of the population with completed tertiary education	34,3	**Higher (except for IT and DE)**
Life expectancy at birth	The average number of years a person is expected to live	80,1	**Higher**
Urban population exposure to air pollution by particular matter (PM10)	The population-weighted yearly average of PM10 that the urban population is potentially exposed to	20,5 µg/m^3	**Lower (+), except for IT**

TABLE 3.1 Overview of indicators in Alpine countries in comparison to EU. (EUROSTAT, 2023)

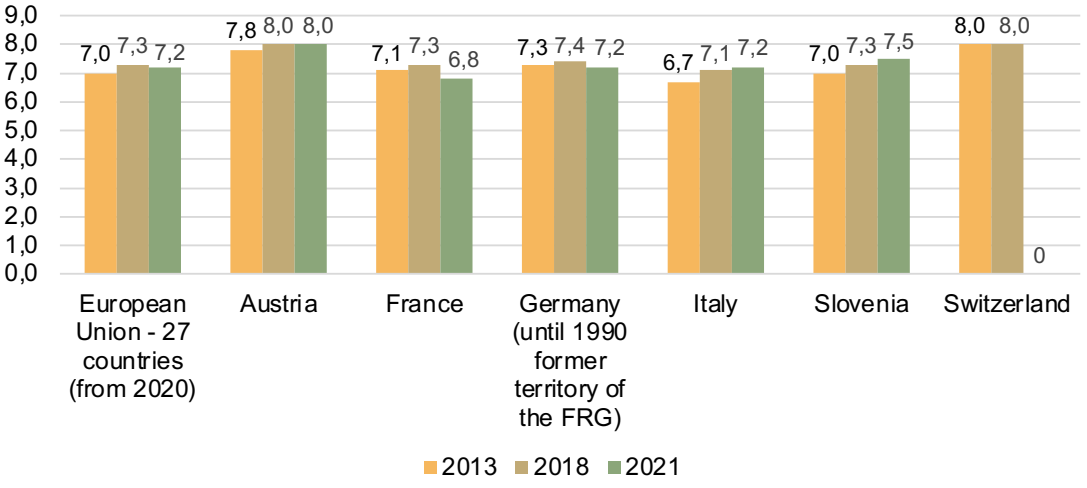


FIGURE 3.3 Level of satisfaction with quality of life in EU (NUTS 0). (Source: EUROSTAT, 2013, 2018 and 2021)

[4] Subjective indicators complement objective indicators by providing insights into people's perceptions and feelings across various themes. These indicators

Overall life satisfaction is an indicator that reflects the personal level of satisfaction on a scale from 0 to 10. Results are presented in groups reflecting overall life satisfaction. The data for Alpine countries corresponds to the reference year 2022, while Switzerland last available data is from 2021. Across the Alpine countries, all countries report medium to moderately high levels of satisfaction, with indicator values falling between 6,5 and 7,9. Most Alpine countries have indicator values higher than the EU average of 7,1, with only two of the countries (France and Germany) slightly below this average value.

cover a wide range of aspects: overall life satisfaction, satisfaction with time use, self-perceived health, and material living conditions, which are assessed through satisfaction with finances, housing conditions (housing satisfaction), employment (job satisfaction), education (life satisfaction gap), and environment (satisfaction with living environment). Additionally, subjective indicators encompass topics related to social relationships, safety, and governance. Social relations are evaluated based on satisfaction with personal relationships and the share of people who have someone to rely on in times of need. Safety is described using indicators of safety feelings when walking alone in the dark and the share of the population reporting crime, violence, or vandalism in the area. Governance is assessed through trust in the legal system and the share of the population with confidence in the European Parliament. Values presented as averages are derived from the shares of the population who rate their satisfaction on a scale from 0 to 10. The results are then grouped and presented on a scale, with values ranging from 0 to 5 indicating low satisfaction, values from 6 to 8 representing medium satisfaction, and values of 9 and 10 reflecting high satisfaction.

Table 3.2 reflects the personal situation of the population with regards to certain aspects of QoL. It can be concluded that, again, the Alpine countries generally score higher than the EU average, a bit of a poorer performance was noted for Italy, however, mostly, the values were just slightly under the EU average. It is important that Alpine residents have a higher share of the population who have someone to rely on compared to the EU average of 93,2%, especially considering the remoteness of the Alpine area. Only two countries (Italy and France) have a slightly lower share. In addition, and regarding the safety in neighbourhoods, Alpine people do not worry, the only two problematic indicators are related to governance and trust in parliament – both are low and do not reach EU average which should be an important aspect for policy makers and regulators to take into account. With regard to time management, the values lay around EU average, so this aspect could be seen as having room for an improvement.

Indicator	Definition	EU average	Alpine countries performance
Satisfaction with finances (2018)	Average satisfaction score based on the shares of the population who rated their financial satisfaction	6,5	**6,3 to 7,3 Higher: AT, DE, CH and FR Lower: SI and IT**
Housing satisfaction (2013)	Average satisfaction score	7,4	**Higher, except for IT**
Job satisfaction (2018)	Average satisfaction score	7,2	**Higher, except for DE**
Satisfaction with time use (2018)	Average satisfaction score	6,7	**Around EU average (6,4 to 7,3)**
Life satisfaction gap (2021)	Overall life satisfaction between the population with high and low education lev-els	1,0	**Lower, except for DE and SI**
Self-perceived health (2022; CH, 2021)	Percentage of the population that rates their health state as good and very good	67,8%	**Higher (65,1% to 81,9%), except for FR and DE**
Satisfaction with personal relationships (2018)	Average satisfaction score	7,9	**Higher, except for IT**
The share of people who have someone to rely on in case of need (2013)	Percentage of the population who can count on someone for help	93,2%	**Higher, except for IT and FR**
The feeling of safety when walking alone in the dark (2013)	Percentage of the population who reported feeling very or fairly safe while walking alone in their neighbourhood	74,5%	**Higher (CH, SI, AT), lower (DE and IT)**
The share of the population reporting crime, violence, or vandalism in the area (2020)	Percentage of people who face such issues in their local area	10,7%	**Lower (+), except for FR**
Trust in the legal system (2013)	Average satisfaction score	4,5	**Lower (poor-er), only AT, DE and CH higher**
Population with confidence in the European Parliament (2023)	Share of the population who trust the European Parlia-ment	49%	**Lower, except IT and CH higher**
Satisfaction with the living environment (2013)	Average satisfaction score	7,2	**Higher, except for IT**

TABLE 3.2 Overview of satisfaction with QoL aspects by Alpine population in comparison to EU average on a scale from 0 to 10. (Source: EUROSTAT, 2023)

3.4 OECD: regional well-being

A comprehensive set of indicators has been devised to assess various dimensions of well-being in the regions of the OECD, including NUTS 2 regions in Austria, France, Germany, Italy, Slovenia, and Switzerland. Each region is assessed in eleven key topics crucial for well-being: income, jobs, housing, education, health, environment, safety, civic engagement and governance, access to services, community, and life satisfaction. The indicators are represented as scores ranging from 0 to 10, providing a measure of the given region's performance in each area, and combining both the individual attributes of people and the local conditions of their respective regions. The reference year for the data varies, with most of the data referring to the years 2021, 2020, or 2018.

Situation in the Alps

Regarding the topic of education, the majority of Alpine regions in Alpine countries exhibit higher scores than the national score for each respective country, e.g. in Austria, 7 out of 8 Alpine regions surpass the national value of 8,4 (except for Vorarlberg), in France (7,7), Germany (8,2) and Italy (4,1). In Slovenia, Western Slovenia has a higher score than the national score of 9,4, while the regional score for Eastern Slovenia is slightly below the national value. In Switzerland, 3 out of 5 regions (Espace Mittelland, Lake Geneva Region and Central Switzerland) surpass the national value of 8,7. However, the overall average (7,8) of Alpine countries falls below the European average of 8.

With regards to jobs, the majority of Alpine regions score higher values than the national value for each respective country; in Austria (national average 7,5) this goes for all the regions, in France (6) for Auvergne-Rhône-Alpes; German and Swiss average accounts for the very high 9 (3 out of 5 regions – Espace Mittelland, Eastern Switzerland and Central Switzerland have higher values). The average for Alpine countries is 7,2, surpassing the EU average of 6,7. In Slovenia, Western Slovenia surpasses the national score of 7,9, while Eastern Slovenia scores a slightly lower value.

Related to jobs, is the topic of income where Alpine regions demonstrate similar values to the national scores (German Bavaria 5,2; Italian Piedmont and Liguria with values of 4, Slovenian regions lower than 3,5) or even lower values (Italian Aosta Valley, Trento, and Veneto, and both French regions). Specifically, all Austrian regions report lower scores than the national value of 5,1. In Switzerland, 4 out of 5 regions have the same score as the national value of 10, with only Ticino region having a slightly lower value. The overall average of Alpine countries (5,4) boasts higher values than the EU average of 3,9.

Regarding the topic of safety, all Alpine regions score very high values, between 9,5 and 10. However, there is a distinction if they score over national average (Austrian case – majority of regions over 9,9), the same (Bavaria 9,8, Swiss Espace Mitteland and Ticino – 9,9) or under national average (Slovenia – both slightly under 9,9). In France, Auvergne-Rhône-Alpes demonstrates a higher value than 9,6. In Italy, 4 regions (Liguria, Lombardy, Province of Bolzano-Bozen and Veneto) have the same value as the national one of 9,9, 3 regions (Aosta Valley, Trento and Friuli-Venezia Giulia) have a higher value, while only Piedmont reports a slightly lower value. In Switzerland, Central Switzerland has a higher value, and Lake Geneva Region and Eastern Switzerland slightly lower values.

In the field of health, Alpine regions, in general, score higher values compared to the national result and the EU average of 5,4. In Austria, all Alpine regions surpass the national score of 6,9. In France, both regions are above national value of 7,8, and the same applies in Bavaria (6,6). Seven Italian regions, except for Friuli-Venezia Giulia, score higher or the same as the national value; 8,1. In Slovenia, Western Slovenia is over 5,8 and Eastern Slovenia is under the national value. In Switzerland, only Eastern Switzerland is below the average (8,7).

In the realm of the environment, the Alpine regions again perform above the average in each of the countries. In Austria, Styria is the only one below the national score (6,9), in France, Provence- Alpes-Côte d'Azur region has a lower value than 7,6. Bavaria surpasses the national result of 7,2. In Italy, 5 out of 8 Alpine regions (Aosta Valley, Liguria, Bolzano-

Bozen, Trento and Friuli-Venezia Giulia) demonstrate higher values compared to the national one of 5,1. In Slovenia, both regions have the same or higher value as the national score of 5,1. In Switzerland, Ticino is the only region with a value below 7,8. The overall average for Alpine countries (6,6) is lower than EU average of 6,9. Hence, on the whole, Alpine regions surpass the national averages of individual countries; nevertheless, when comparing the national averages of Alpine countries, they fall below the EU average.

In the domain of civic engagement, Alpine regions, score higher than both the EU average and the average of Alpine countries, however, there is diversity across regions and countries. Austrian Burgenland, Lower Austria, Styria, Upper Austria and Salzburg score higher than the national average (6,8), and the same applies to both French Alpine regions (7,3). Bavaria demonstrates a higher value (7,1), and this is also the case for all Italian regions (national 6,2), except for Lombardy. Western Slovenia demonstrates a higher value compared to the national score of 1,7, while Eastern Slovenia has a lower value. In Switzerland, Eastern Switzerland has the same value as the national average and other four regions a higher value than the national one but not higher than 1,4. Alpine countries score a lower average value (4,9) than the EU average of 5,3, whilst the Alpine region's average outperforms the EU average.

Accessibility to services differentiates across the Alpine area, but in general, regions have lower or similar values compared to the national scores. In Austria, Carinthia, Styria, Upper Austria, Salzburg and Tyrol score lower or the same as 5,5; whilst in France the figure is 8,6 with both regions scoring below this. Bavaria has a higher value compared to the national one of 6,4. Aosta Valley, Bolzano-Bozen, Trento, Veneto and Friuli-Venezia Giulia demonstrate a lower value compared to the national one of 6. Western Slovenia surpasses the national value of 6,2, while Eastern Slovenia has a lower value. All the Alpine regions in Switzerland have lower values compared to the national one of 9,8.

As for services, (and housing), the Alpine regions generally score lower values compared to national ones. In Austria, only Burgenland and Carinthia reach the national value of 5,8. In France performance is lower than the national value of 5,8. In Italy, 6 out of 8 Alpine regions report the same value or lower value than the national score of 2,9; Liguria and Friuli-Venezia Giulia are the only two regions with higher values. Both Slovenia regions have lower value than the national one of 4,3. All the Swiss Alpine regions also report lower values compared to the national score of 5,8.

Regarding the topic of community, the values differ across the Alpine regions and countries. In Austria (7,2), Lower Austria, Carinthia, Upper Austria, Salzburg and Tyrol score better, as do both French regions (higher than 8,4). Bavaria has a lower value compared to the German average of 5,8. 5 out of 8 Italian regions score a higher value compared to the national one of 5,7, lower values are reported for Piedmont, Aosta Valley, and Lombardy. Both Slovenian regions have a lower value compared to the national one of 9,2. 4 out of 5 Swiss regions report a lower value compared to the national one of 8,8, with Central Switzerland being the only region with a higher score.

In general, life satisfaction in Alpine regions is higher compared to the national values, however, the values show great variety. Burgenland is the only Austrian Alpine region below the national score (8,5). In France, both regions have higher or the same value as the national one of 6,5. Bavaria has a lower value compared to the national score of 8,1 which is unusual since it mostly outperformers the national values. Aosta Valley, Liguria, Lombardy, Bolzano-Bozen and Trento all report higher or the same value as the national (5,4). Western Slovenia scores higher than 5,8, while Eastern Slovenia falls below this value. Swiss Lake Geneva Region, Eastern Switzerland and Central Switzerland demonstrate higher or the same value as the very high national score of 9,6.

Considering all QoL topics, substantial disparities emerge among regions in terms of their scores across various domains of QoL. Swiss regions generally achieve the highest scores, with some even exceeding 8 out of 10. Notably, Central Switzerland consistently matches or surpasses national averages across most QoL categories, including environment, employment, income, safety, health, education, civic engagement, community, and life satisfaction. In Austria, all regions maintain an average score of at least 7, with many

surpassing this mark. For instance, Lower Austria achieves scores higher or equivalent to the national average in nine out of eleven QoL domains, including education, employment, safety, health, environment, civic engagement, access to services, community, and life satisfaction. Both Alpine regions in France outperform the average score of 7. Auvergne-Rhône-Alpes leads in most QoL areas compared to the Provence-Alpes-Côte d'Azur region, including in education, employment, safety, health, environment, civic engagement, housing, community, and life satisfaction. Italian and Slovene regions, on the other hand, tend to score lower averages, typically around 6.

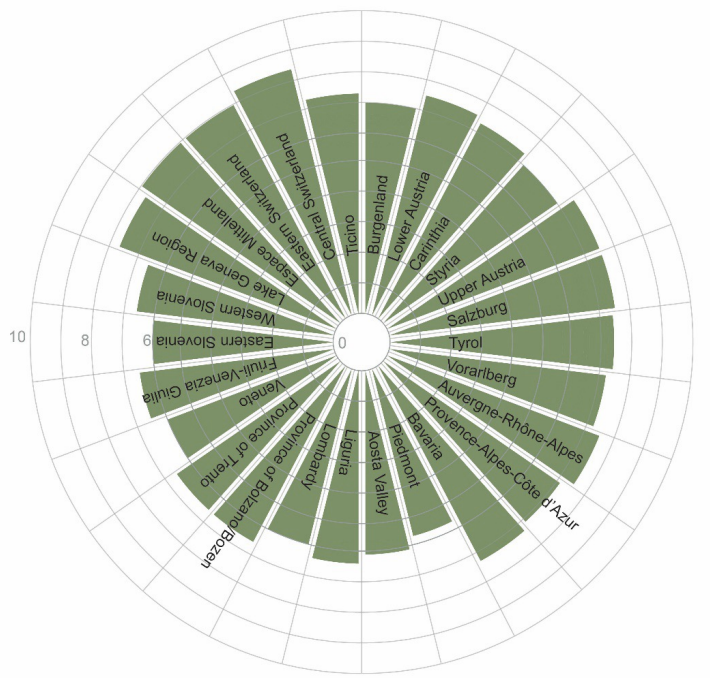


FIGURE 3.4
Average value scored in Alpine NUTS 2 regions in all main QoL topics. (Source: OECD Regional well- being)

QoL topics	Alpine NUTS 2 average	Alpine countries average	EU
Education	**7,7**	**7,8**	**8,0**
Jobs	**7,8**	**7,2**	**6,7**
Income	**5,3**	**5,4**	**3,9**
Safety	**9,9**	**9,9**	**9,7**
Health	**8,3**	**7,3**	**5,4**
Environment	**6,7**	**6,6**	**6,9**
Civic engagement	**5,5**	**4,9**	**5,3**
Accessibility to services	**6,7**	**7,1**	**7,0**
Housing	**4,4**	**5,0**	**5,0**
Community	**7,4**	**7,5**	**7,2**
Life satisfaction	**7,5**	**7,3**	**6,0**

TABLE 3.3
Average scores for Alpine NUTS 2 regions, Alpine countries and EU in main QoL topics. (Source: OECD Regional well-being; note: data for Liechtenstein and Monaco is unavailable, EU average does not include data for Bulgaria, Croatia, Cyprus, Malta and Romania)

Comparing average values for Alpine regions to the average values of the EU and the national averages of Alpine countries, Alpine regions generally outperform in the domains of jobs, health, life satisfaction, safety and civic engagement. However, in the domains of education, accessibility to services and housing, Alpine regions are below both the EU average and the average of Alpine countries. Domains where Alpine regions surpass both the EU and the national average of each country or have at least the same value as the higher average (EU or Alpine countries) include jobs, safety, health, civic

engagement, and life satisfaction (coloured green in the Table 3.3). In contrast, Alpine regions score lower values compared to both averages in the domains of education, accessibility to services, and housing (coloured orange in Table 3.3). In the environmental domain, Alpine regions score above the average of Alpine countries but below the EU average (coloured orange in the Table 3.3). Additionally, in the domains of community and income, Alpine regions score higher than the EU average but below the average of Alpine countries (coloured green in Table 3.3).

3.5 OECD: Better Life Index

This index enables an overview of well-being among countries, and focuses on 11 topics that the OECD has recognized as fundamental in the domains of material living conditions and quality of life. The indictor topics include: housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety, and work-life balance. Data is also available for Austria, France, Germany, Italy, Slovenia, and Switzerland. Data pertains to different years, with most of the data being available for the period from 2017 to 2020.

The housing topic is assessed through indicators such as dwellings without basic facilities, housing expenditure, and the number of rooms per person. Income is measured by household net adjusted disposable income and household net wealth. The jobs topic is covered by the indicators of labour market insecurity, employment rate, long-term unemployment rate, and personal earnings. Community is assessed through the quality of support networks. Education is represented by the indicators of education attainment, student skills, and the number of years in education. Environment is covered by the indicators of air pollution and water quality. Civic engagement is described by the indicators of stakeholder engagement for developing regulations and voter turnout. Health is assessed through the indicators of life expectancy and self-reported health. Safety is represented by the indicators of feeling safe walking alone at night and homicide rate. Work-life balance is measured through the indicators of employees working very long hours and time devoted to leisure and personal care. Additionally, life satisfaction is also assessed.

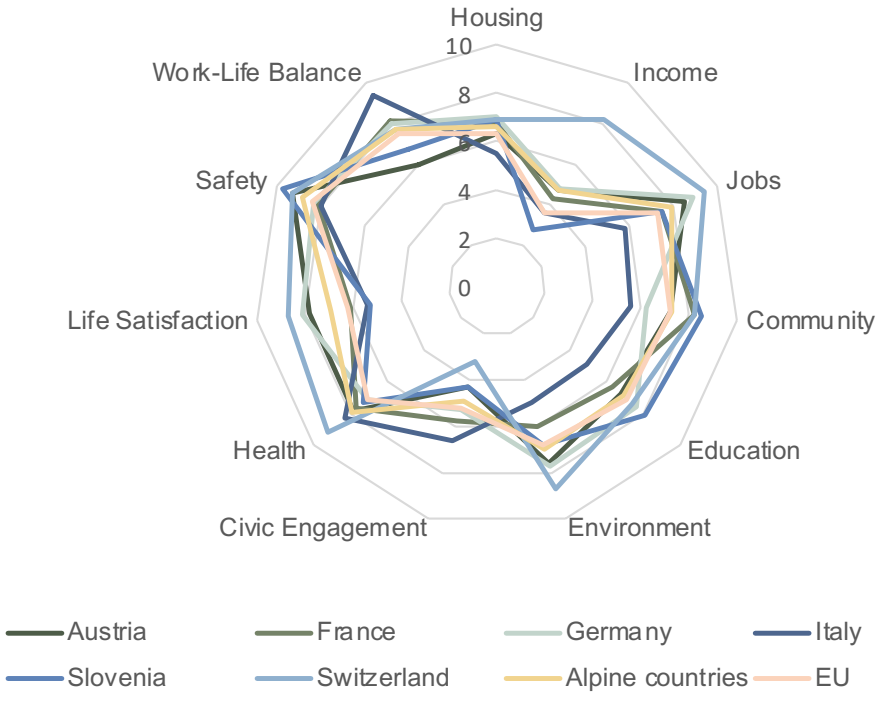


FIGURE 3.5 Main QoL topics across Alpine countries. (Source: OECD Better Life Index; note: data for Liechtenstein and Monaco is unavailable; EU average does not include data for Bulgaria, Croatia, Cyprus, Malta and Romania)

Situation in the Alps

On average, Alpine countries score the lowest values in the topics of income (average value for Alpine countries is 4,7) and civic engagement (average value 4,9). The highest-scoring topic for countries in the Alps is safety, with an average value of 8,8. However, the values across the Alpine countries vary significantly in each topic. In the topic of housing, the average value for Alpine countries is 6,6, with four countries (France, Germany, Slovenia and Switzerland) surpassing that value. Values in the topic of income vary between the countries and range from 2,8 to 8,2, the lowest value is scored by Slovenia, while the highest is recorded by Switzerland. For the category of jobs, countries score an average of 7,9, with three countries (Austria, Germany and Switzerland) scoring above that value. Community scores an average of 7,3, with three countries (France, Slovenia, and Switzerland) having higher values. Education is assessed with an average of 6,9, with three countries (Germany, Slovenia, and Switzerland) above the average value. The environment scores 7, with three countries (Austria, Germany, and Switzerland) surpassing that value. In the topic of civic engagement, three countries (France, Germany and Italy) surpass the average value. Health scores an average of 7,9, with two countries (Italy and Switzerland) surpassing this value. The average life satisfaction is 6,9, with three countries (Austria, Germany, and Switzerland) having higher values. Regarding safety, three countries (Austria, Slovenia, and Switzerland) report higher values compared to the average. Work-life balance is assessed at 7,7, with four countries (France, Germany, Italy and Switzerland) having higher or the same value as the EU average.

3.6 Report on the Quality of life in European cities

The Perception Survey on the Quality of Life in European Cities, conducted in 2019, included 83 cities across Europe, including cities in Alpine countries as well. Among the selected cities in those countries were Graz, Vienna, Ljubljana, Verona, Turin, Geneva, Zurich, and Munich. Although none of the mentioned cities are situated within the AC perimeter, the majority are located in close proximity to it. These cities fall within the Alpine (fringe) territories when considering alternative perimeters like the EUSALP perimeter. Fringe regions, which are closely connected to the inner Alpine areas, have larger urban centres which are crucial for Alpine inhabitants with regards to issues such as employment and education. Despite lying outside the AC perimeter, these cities rely significantly on the inner Alpine regions for essential natural resources, such as drinking water. Therefore, it is beneficial to assess the QoL in cities situated in the Alpine fringe territories.

The assessment of the quality of life covered eight main themes, namely overall satisfaction, services and amenities, environmental quality, economic well-being, public transport, the inclusive city, local public authorities, and safety and crime. In total, the survey addressed 27 subthemes.

Situation in the Alps

On the whole, Alpine cities outperform the average of all 83 cities in most themes. They excel in areas such as satisfaction with living in the city (with 87% or more expressing satisfaction), satisfaction with cultural facilities (with 84% or more being satisfied), satisfaction with public spaces (with 85% or more being satisfied), and safety (with only 17% or less reporting being victims of robbery or assault).

Nevertheless, there are several aspects in which Alpine cities are not performing as well in general. These aspects include the availability of affordable housing (with 6 out of 8 selected cities falling below the overall average of 39%; only both Italian cities outperform the average); the availability of jobs (with 4 out of 8 cities scoring below the average of 42%; both Austrian cities, Munich and Zurich surpass the average); and being perceived as good places for migrants to live (with 4 out of 8 cities also scoring below the average of 75%; both Swiss cities, Graz and Munich have higher values).

Additionally, there are aspects where results for Alpine cities show significant variation. Satisfaction with air quality ranges from 33% to 93% across the Alpine towns, both Italian cities score lower values while both Swiss cities and Vienna report higher satisfaction. Satisfaction with cleanliness varies between 46% and 90%, Turin scores the lowest value among the cities and it is the only Alpine city with a value below the average of 62%. Satisfaction with the frequency of public transport ranges between 47% and 94%, both Italian cities and Ljubljana also have lower values than the average of 74%. The level of satisfaction with local public administration also exhibits variability, ranging from 32% to 86%, both Italian cities have the lowest values among the Alpine cities as well as having values below the average of 56%. Furthermore, the percentage of people expressing that it is easy to find a job in Alpine cities varies significantly, with values ranging from 12% to 73%, with four cities (Ljubljana, Verona, Turin and Geneva) also having lower values than the average of 42%. Likewise, the percentage of people reporting that their local administration is not corrupt shows notable divergence, with figures spanning from 29% to 80%, three cities (Ljubljana, Verona and Turin) had the lowest percentage among the Alpine cities and also exhibited scores lower than the average value of 49%.

4 ANALYSIS OF QUALITY OF LIFE IN THE ALPS – RSA 10 DATABASE

4.1 Overview

Analysis of quality of life in the Alps based on indicators was one of the most challenging tasks of the RSA 10 preparation. Although screening exercises pertaining to indicators had been undertaken in other QoL–related approaches, relying only on them was not an option after the initial analysis for a number of reasons. Many of the indicators used by the ESPON TQoL dashboard did not fulfil our criteria for indicators as they were not available at either NUTS 2 or NUTS 3 level or were outdated because they had been produced as one-time products within certain studies. As a result, we decided to rely on existing indicators from official databases (mostly EUROSTAT) so as to secure potential future replication or monitoring of QoL measurement in the Alps. To calculate accessibility of services Open Street Map data was used to locate the services in the territories. While we are aware of the weaknesses of this data, due to the time constraints inherent within the RSA 10 preparation this was a practical hands-on solution.

This chapter provides an overview of the indicators core indicators (23 altogether) and additional 11 indicators for which we detected discrepancies between the Alpine and European data (see Table 3.1) or discrepancies between different types of regions within the Alps (urban, intermediate, rural, see Table 3.2). Two additional overview indicators were also added to the table showing the perceived level of happiness and satisfaction with life from the European Social Survey (2020) and from the survey conducted in the scope of preparation of this report (see Chapter 5). The indicators are divided by topics and according to the pillars to which they were ascribed (see Chapter 1.4 for details). At the beginning of each topic's subchapter there is a list of the indicators elaborated upon within the same subchapter. Eighteen indicators describe enablers, ten indicators describe life maintenance, and six describe life flourishing.

As visible in Table 3.1, the chosen indicators in the Alpine area mostly outperform the European average, however there are important regional differences. For most of the indicators, the average value is better, except for the duration of parental leave where European average is 50 weeks, while the Alpine average records 36 weeks[5]. Two other underperforming indicators fell under the category of Life maintenance. The aging index is higher (163) than the European average (140), and employment in the service sector is 10% lower than in the EU (59%). Alpine regions are also at a higher risk of impacts due to climate change. Aside from these "problematic indicators" it would be possible to conclude based on the indicators herein presented, that the Alps provide better living conditions than the European average. This view must be put into perspective and evaluated alongside those indicators which highlight negative trends such as the aging of the population, continued land take, and prospective climate impacts. Further, for some indicators the European average is well below set goals (e.g. water quality status), so the values of the Alpine indicators should also be evaluated against these goals and not only the European average. Alpine society is "well-maintained" and Alpine residents generally perceive quality of life similarly to average European citizen according to our survey (see Chapter 5). If compared with the European Social Survey results, the grades for AC are higher than the European average, however the data is also coarser (ranging from NUTS 3 to NUTS 1 depending on the country). The Alps thus seems to be in a good starting position to ensure high quality of life for its residents but must put effective policies and actions into place to sustain its quality of life in the future especially given the upcoming climate, demographic, and economic threats.

[5] Due to low parental leave duration in Switzerland.

Topic	Indicator	EU	AC
General	Perceived level of happiness in ESS (own survey) 0 – extremely unhappy, 10 – extremely happy	**7,1**	7,5 (6,8)
General	Life satisfaction in ESS (own survey) 0 – extremely dissatisfied, 10 – extremely satisfied	**7,0**	7,6 (6,9)
	ENABLERS		
Environment	Land take intensity (share increase of artificial surfaces from 2000)	**7%**	4%
Environment	Share of waterbodies in good or high ecological status	**40%**	57%
Environment	Trend of annual temperature change 1960 – 2021 (°C per decade)	**0,34**	0,36
Infrastructure and services	Average population-weighted distance to hospital	**/**	**6,9 km**
Infrastructure and services	Average population-weighted distance to nursery	**/**	**2,9 km**
Infrastructure and services	Average population-weighted distance to primary school	**/**	**1,5 km**
Infrastructure and services	Average population-weighted distance to grocery store	**/**	**1,3 km**
Infrastructure and services	Average population-weighted distance to cultural amenities: cinemas, theatres, libraries	**/**	**3,5 km**
Infrastructure and services	Share of households with broadband access	**90,6%**	92%
Work and financial security	Duration of parental leave (NUTS 0, weeks)	**50**	38,2
Work and financial security	Share of employed persons commuting to another NUTS 2 region within their country	**5,7%**	7,7%
Work and financial security	Labour productivity	**48.000 EUR**	65.000 EUR
Work and financial security	Average number of usual weekly hours of work in main job	**37**	36,6
Social relations	Average population-weighted distance to community centre	**/**	**5,5 km**
Social relations	Average population-weighted distance to police station	**/**	**3,3 km**
Social relations	Average population-weighted distance to fire station	**/**	**2,7 km**
Governance	European Quality of Government index	**0**	0,38
Governance	Adaptive capacity to climate change (0 – very low, 2 – very high)	**1,41**	1,52
	LIFE MAINTENANCE		
Environment	Premature deaths per 100.000 inhabitants due to PM2.5 air pollution	**53,1**	42,2
Environment	Aggregated risk of potential effects of climate change on society under continued very high emissions scenarios (0 – very low, 2 – very high)	**1,51**	1,45
Infrastructure and services	Population growth trend (2017/2021)	**0,3%**	0,8%
Work and financial security	Equivalised disposable income of households (per inhabitant)	**17.200 EUR**	27.000 EUR
Work and financial security	Share of people at risk of poverty	**20,8%**	16,2%
Work and financial security	Share of employed persons in service sector (NACE)	**59,1%**	52,7%
Social relations	Aging index	**1,40**	1,63
Social relations	Share of young people who are neither in employment nor in education and training	**11,7%**	9,4%
Social relations	Percentage of people who have friend or relatives to rely on in case of need	**91%**	**91%**
Governance	Voter turnout on national elections	**/**	**69,27**
	LIFE FLOURISHING		
Environment	Share of respondents who perceive effects of environmental issues on daily life and health	**78%**	77%
Infrastructure and services	Perceived own health (1 – very good, 5 – very bad)	**2,23**	1,99

TABLE 4.1 Overview of indicators' performance in comparison to EU average. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Topic	Indicator	EU	AC
	LIFE FLOURISHING		
Work and financial security	Perception about income with regards to comfort of living (1 – living comfortably, 4 – very difficult)	**1,95**	1,63
Work and financial security	Satisfaction with main job (0 – extremely dissatisfied, 10 extremely satisfied)	**7,32**	7,49
Social relations	Feeling of safety in local area after dark (1 – very safe, 4 – very unsafe)	**2,04**	1,76
Governance	Satisfaction with democracy in country (0 – extremely dissatisfied, 10 – extremely satisfied)	**5,25**	5,51

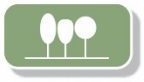
We have also prepared a table (Table 3.2) which compares the averages of the indicators according to types of areas. As is evident, the overall life satisfaction of rural people is the lowest. With regards to enablers, one bigger gap can be identified; the average population-weighted distance to some services. For most services the rural regions score the worst, except for fire brigade stations which are more densely located in such areas and also benefit from there being a long-standing tradition of maintaining them. For services such as nurseries, community centres, and the police, the average distance increases by each category. In addition, and with regards to the need to commute to other regions for work (crossing NUTS 2 borders), rural regions score the worst: 10% of their population needs to commute, while in urban areas the figure is only 2,7%.

Regarding life maintenance, two larger gaps can be noticed. One is for premature deaths due to air pollution – much higher in urban areas – and the other is for income per household which is highest in the intermediate areas (38.100 EUR) and significantly lower in urban and rural areas (24.000 EUR). In life flourishing, intermediate regions tend to score above the AC average, while urban and rural score below it. Land take is highest in rural areas.

Topic	Indicator	AC	Urban	Inter.	Rural
General	Perceived level of happiness in ESS (own survey) 0 – extremely unhappy, 10 – extremely happy	**7,53**	7,31	7,81	7,46
General	Life satisfaction in ESS (own survey) 0 – extremely dissatisfied, 10 – extremely satisfied	**7,64**	7,23	8,00	7,59
	ENABLERS				
Environment	Land take intensity (share increase of artificial surfaces from 2000)	**4%**	3%	3%	5%
Environment	Share of waterbodies in good or high ecological status	**57%**	44%	59%	59%
Environment	Trend of annual temperature change 1960 – 2021 (°C per decade)	**0,38**	0,39	0,36	0,37
Infrastructure and services	Average population-weighted distance to hospital	**6,9 km**	4,5 km	5,4 km	10,3 km
Infrastructure and services	Average population-weighted distance to nursery	**2,9 km**	1,8 km	2,6 km	3,7 km
Infrastructure and services	Average population-weighted distance to primary school	**1,4 km**	1,0 km	1,3 km	1,9 km
Infrastructure and services	Average population-weighted distance to grocery store	**1,3 km**	0,9 km	1,1 km	1,7 km
Infrastructure and services	Average population-weighted distance to cultural amenities: cinemas, theatres, libraries	**3,5 km**	1,9 km	2,7 km	5,5 km
Infrastructure and services	Share of households with broadband access	**92%**	91,4%	93,9%	90,3%
Work and financial security	Duration of parental leave (NUTS 0, weeks)	**36,8**			
Work and financial security	Share of employed persons commuting to another NUTS 2 region within their country	**7,7%**	4,6%	8,6%	9,8%
Work and financial security	Labour productivity	**65.000 EUR**	68.000 EUR	63.000 EUR	64.000 EUR
Work and financial security	Average number of usual weekly hours of work in main job	**36,6**	37,1	36,3	36,5
Social relations	Average population-weighted distance to community centre	**5,4 km**	3,6 km	4,9 km	7,0 km

TABLE 4.2 Comparison of Alpine convention area average with the average score of three types of areas: urban, intermediate and rural. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Topic	Indicator	AC	Urban	Inter.	Rural
ENABLERS					
Social relations	Average population-weighted distance to police station	**3,3 km**	2,2 km	3,1 km	**4,1 km**
Social relations	Average population-weighted distance to fire station	**2,7 km**	3,3 km	**2,9 km**	2,3 km
Governance	European Quality of Government index	**0,34**	**0,19**	**0,23**	0,69
Governance	Adaptive capacity to climate change (0 – very low, 2 – very high)	**1,52**	**1,45**	**1,52**	1,54
LIFE MAINTENANCE					
Environment	Premature deaths per 100.000 inhabitants due to PM2.5 air pollution	**42,2**	**68,8**	**43,1**	30,2
Environment	Aggregated risk of potential effects of climate change on society under continued very high emissions scenarios (0 – very low, 2 – very high)	**1,45**	**1,55**	1,44	1,43
Infrastructure and services	Population growth trend (2017/2021)	**0,8%**	**0,2%**	1,1%	**0,6%**
Work and financial security	Equivalised disposable income of households (per inhabitant)	**27.000 EUR**	**25.200 EUR**	31.900 EUR	**22.400 EUR**
Work and financial security	Share of people at risk of poverty	**16,2%**	**17,3%**	**16,4%**	15,0%
Work and financial security	Share of employed persons in service sector (NACE)	**52,7%**	55,0%	56,8%	**45,3%**
Social relations	Aging index	**1,63**	**1,75**	1,62	1,59
Social relations	Share of young people who are neither in employment nor in education and training	**9,4%**	**11,2%**	9,1%	8,2%
Social relations	Percentage of people who have friend or relatives to rely on in case of need	**91%**	**91%**	92%	**90%**
Governance	Voter turnout on national elections	**69,3%**	73,9%	**62,9%**	72,8%
LIFE FLOURISHING					
Environment	Share of respondents who perceive effects of environmental issues on daily life and health	**77%**	**/**	**84%**	76%
Infrastructure and services	Perceived own health (1 – very good, 5 – very bad)	**1,99**	**2,09**	1,88	**2,02**
Work and financial security	Perception about income with regards to comfort of living (1 – living comfortably, 4 – very difficult)	**1,63**	**1,71**	1,58	**1,64**
Work and financial security	Satisfaction with main job (0 – extremely dissatisfied, 10 extremely satisfied)	**7,49**	**7,32**	7,68	**7,49**
Social relations	Feeling of safety in local area after dark (1 – very safe, 4 – very unsafe)	**1,76**	**1,85**	1,63	1,75
Governance	Satisfaction with democracy in country (0 – extremely dissatisfied, 10 – extremely satisfied)	**5,51**	**5,14**	6,37	**4,85**



4.2 Environment

The Alpine environment is one of most distinct characteristics of the area. The natural environment is among the most preserved in Europe, but is also one of most endangered due to anthropogenic processes and climate change, as temperatures in Alps have risen twice as much as the global average. A preserved, resilient and healthy environment is not only a mandatory condition for a high quality of life in the Alps, but also in many fringe areas which depend on and use Alpine resources, such as water, timber, produce, and even the aesthetic quality of the area for tourism and recreation purposes. These environmental resources are under a lot of pressure from threats including higher risk of flooding, avalanches, melting snow and raising snow line etc. (for more see Chapter 2; Adler *et al.*, 2022). This topic consists of indictors which include: 1) living conditions, 2) ecosystems, biodiversity and nature protection, 3) built environment and cultural heritage, and 4) resilience and climate change. This topic is described by the following indicators:

TABLE 4.3 Environmental indicators, compared to EU average and by urban-rural typology. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Indicator	EU	AC	Urban	Inter.	Rural
ENABLERS					
Land take intensity (share increase of artificial surfaces from 2000)	7%	4%	0,026	0,030	0,048
Share of waterbodies in ecological quality elements status good or high	40%	57%	44%	59%	59%
Trend of annual temperature change 1960 – 2021 (°C per decade)	0,34	0,36	0,39	0,36	0,37
LIFE MAINTENANCE					
Premature deaths due to air pollution per capita	53,1	42,2	68,8	43,1	30,2
Aggregated risk of potential effects of climate change on society under continued very high emissions scenarios (0 – very low, 2 – very high)	1,51	1,45	1,55	1,44	1,43
LIFE FLOURISHING					
Share of respondents who perceive effects of environmental issues on daily life and health	78%	77%	/	84%	76%

Enablers show that compared to EU averages, the Alpine environment is generally of better quality, but there is still significant room for improvement. Throughout the Alps, there are rivers in poor ecological condition which need to be restored to achieve Water Framework Directive goals. Land take intensity is about half of the European average, but does not meet the net zero goals for 2050. Land take is especially high in Alpine fringes.

With regard to life maintenance indicators, the situation is similar – generally better than the EU average, but still with urgent improvements needed. With reference to premature deaths due to air pollution, the Alps is doing better than Europe, but any preventable deaths due to air pollution should be considered a bad result. The temperatures in the Alps are rising faster than the EU average, and so too are potential risks due to climate related hazards. The positive side is that adaptive capacity to climate change in the Alps also seems high, but it still needs to be activated to actually provide appropriate responses. The life flourishing indicators also show that people tend to be aware of the effects that environmental issues have on their lives, and this should be leveraged as much as possible to ensure the adoption of policies that fight the climate and biodiversity crises.

4.2.1 Enablers

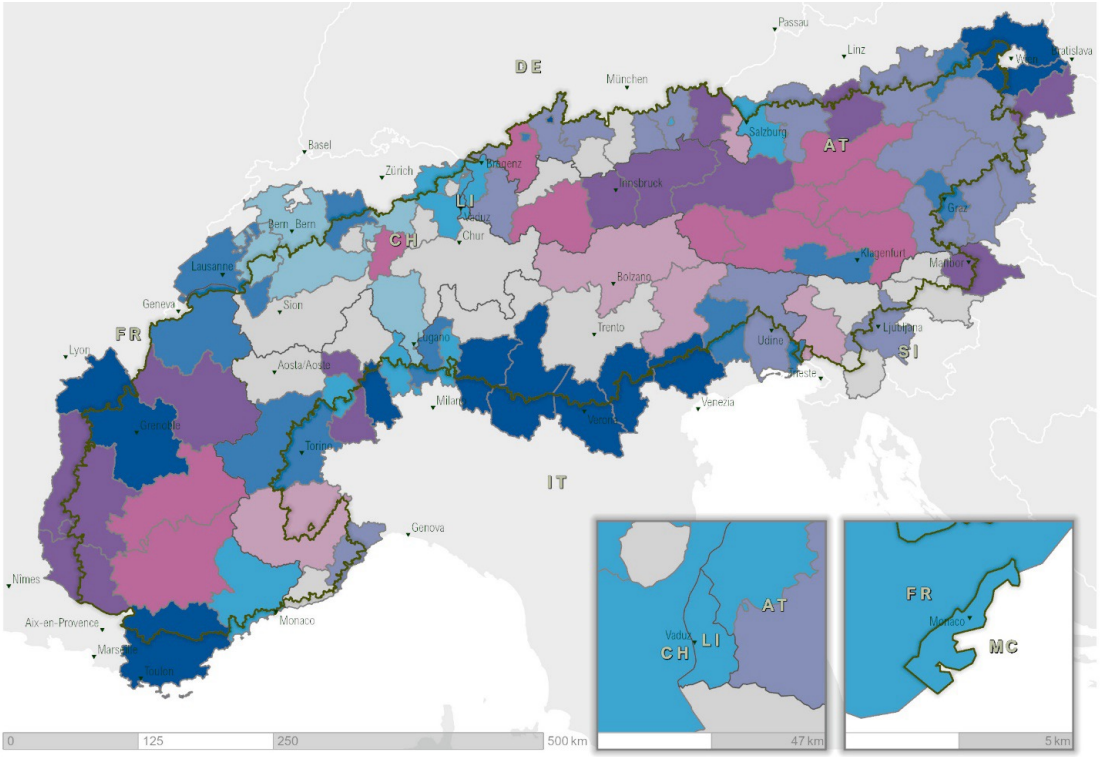
Land take intensity (share increase of artificial surfaces from 2000)

Indicator explanation: The intensity of land take is determined by calculating the proportion of land that has undergone transformation or development during a specific period, expressed as a percentage of the total area covered by artificial surfaces in the year 2000. Land take is defined as the loss of undeveloped land (e.g. agricultural, forest and other semi-natural and natural land) to human-developed land (e.g. infrastructure construction, urban sprawl). For easier comparability, land take is summarised within NUTS 3 regions. Data refers to the year 2018.

The EU has established the objective of achieving zero land take by 2050; subsequently adopted by the Alpine countries that are part of the EU. Additionally, Liechtenstein and Switzerland are also striving to achieve climate neutrality by 2050. Moreover, certain Alpine countries have set specific land saving targets to reduce their rates of land take. In Germany, the goal was to achieve an intensity rate of 30 hectares per day by 2020, with the target for 2030 being a reduction to less than 30 hectares per day. In Austria, the aim is to achieve a land take rate of 2,5 hectares per day by 2030, while in France, the target for 2030 is set at 1,6 hectares of land take per day.

In the EU, the average intensity of land take stands at 7%. However, across the Alpine regions, this intensity is notably lower (3,5%). This indicates that land take in the Alpine regions is less pronounced compared to the EU average. Nevertheless, within the Alpine regions, there is a considerable variety in range of values, from 0 to over 13%. Through

examining the urban-rural typology, it has been observed that rural regions exhibit the highest land take intensity, exceeding 4,7%. In contrast, urban regions have the lowest intensity, slightly above 2,5%. Intermediate regions fall in between, with an average land take intensity of 3%. This is expected as the indicator is expressed relative to built land in 2000, so even small absolute increases of built areas in regions with low built areas might cause this indicator to have high values. Map below combines both land take and built ratio to offer better insights into land take in Alpine regions. Areas exhibiting both high built ratio and high land take ratio are those with greatest absolute land take and might have an especially significant role in achieving land saving targets. Areas with low built ratio, but high land take, might include areas which are at risk of significant loss of environmental and landscape quality.



Land take

High land take, low built ratio

Low land take, low built ratio

High land take, high built ratio

Low land take, high built ratio

Alpine Convention perimeter

The intensity of land take is calculated as percentage of increase of artificial surfaces area from 2000 to 2018. Data is derived from top-level categorization of land uses in CORINE land cover dataset. Built ratio uses the same dataset to calculate the ratio of artificial land uses relative to all other land uses. The bivariate map identifies the relationship between both variables. Regions with high land take and high built ratio are areas where land take is most pronounced in absolute terms. Regions with high land take and low built areas are areas where land take might pose significant risk to landscape and environmental quality preservation. Addressing current and future land change in these two types of regions seems most critical to ensure realization of EU zero net land take goal by 2050.

10th Report on the State of the Alps: Quality of life

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Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

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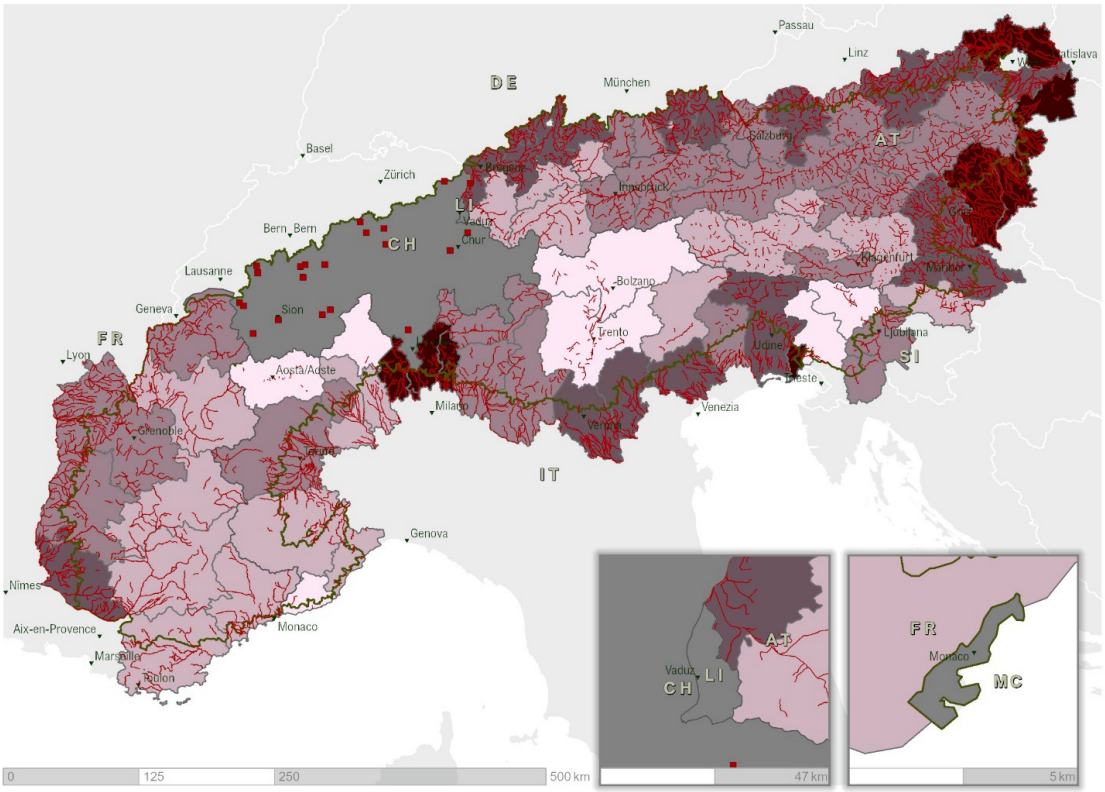
Regional level: NUTS 3
Data sources: © European Union, Copernicus Land Monitoring Service 2023, European Environment Agency (EEA), Eurostat, 2023
Cartography: Tadej Bevk

Share of waterbodies in good or high ecological status

Indicator explanation: This indicator illustrates the share of water bodies, specifically surface rivers, within Alpine NUTS 3 regions, where the ecological quality elements are rated as good or high. The data pertains to the year 2016. Data for Liechtenstein and Monaco was unavailable. Data for Switzerland was available only per monitoring station (not expressed for the whole river body in a usable format) so the share of quality categories in a region was not calculated.

Ecological status indicates the quality of the structure and functioning of surface water bodies, including biological, physico-chemical, and hydro morphological quality elements. The overall ecological status is determined by the element that has the worst status among all the elements. The ecological quality of water ecosystems is of paramount importance as it supports aquatic life and the overall health of water ecosystems, thereby enhancing the living environment of communities.



Share of water bodies in good or high ecological status

40 % EU average

0 – 20 % | 20 – 40 % | 40 – 60 % | 60 – 80 % | 80 – 100 %

No data

monitoring stations in moderate, poor or bad ecological status

Alpine Convention perimeter

water bodies in moderate. poor or bad cological status

Ecological status is an assessment of the quality of the structure and functioning of surface water ecosystems, including biological, physico-chemical and hydromorphological quality elements. The overall ecological status is determined by the element with the worst status out of all elements. The data is derived from WISE database to calculate the share of water bodies (rivers) with good or high ecological status out of all water bodies in a region. For Switzerland, only monitoring station data from NAWA programme was used instead, as the data was not available per waterbody. Caution is advised when comparing Member States as the results are affected by the methods, they have used to collect data and often cannot be compared directly. Additionally, all water bodies and monitoring stations in CH, which are in moderate, poor, or bad conditions are overlayed on top, to show where improvement is necessary. The EU goal according to Water Framework Directive is for all waterbodies to be in at least good ecological state by 2027.

10th Report on the State of the Alps: Quality of life

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CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

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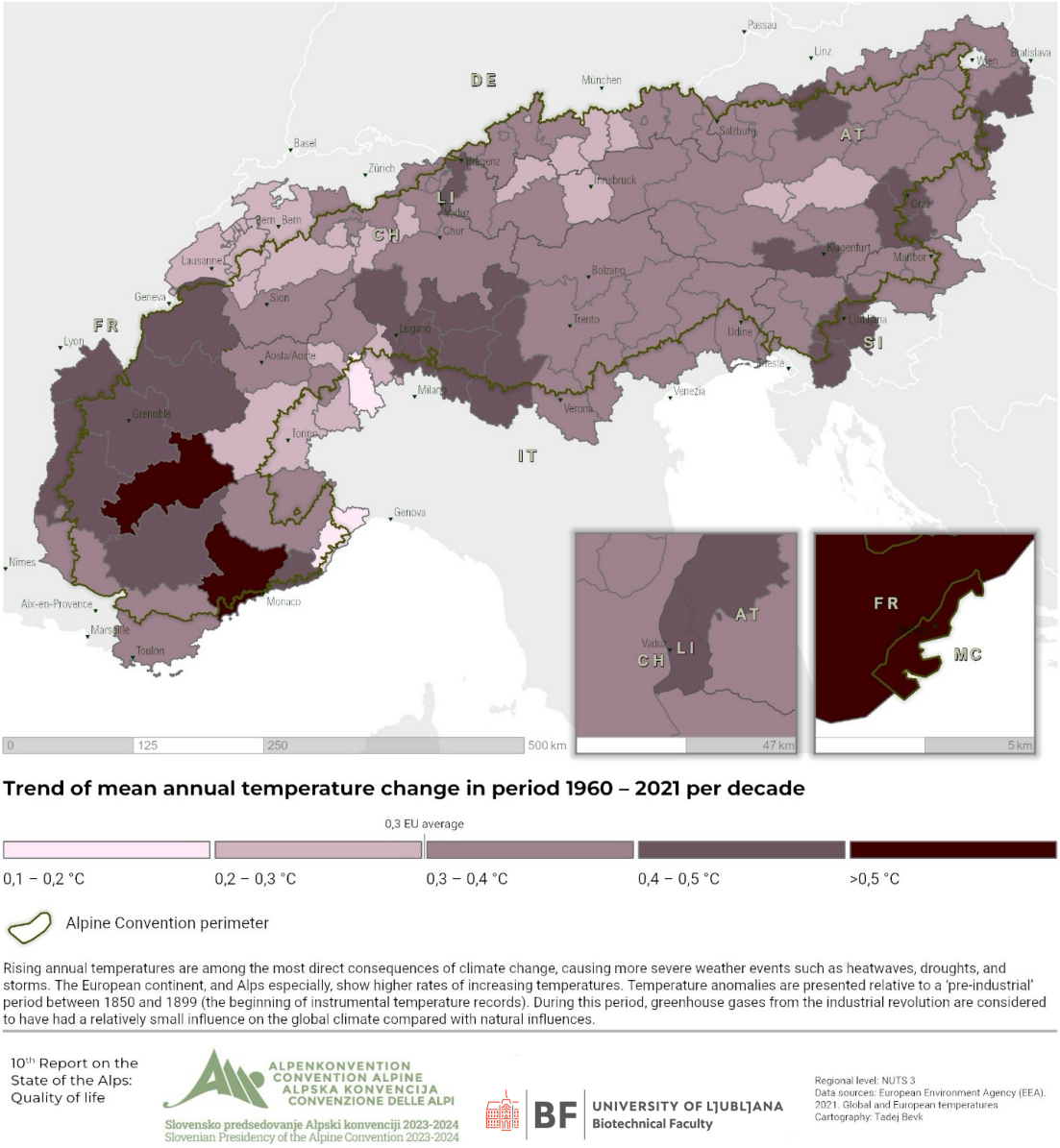
Regional level: NUTS 3
Data sources: European Environment Agency (EEA), 2021. Water Framework Directive Database. Federal Office for the Environment (FOEN). 2019. Nationale Beobachtung Oberflächengewässerqualität (NAWA).
Cartography: Tadej Bevk

Improved water quality is synonymous with reduced water pollution, and contributes to better overall well-being. In the EU, the average share of water bodies with ecological quality elements rated as good or better stands at 40%. However, the Alpine regions exhibit a higher average of 57%, indicating that Alpine rivers offer a cleaner environment compared to the broader EU. However, a lot of this high share can be accounted for by the many smaller upper-most sections of rivers, while lower and larger sections are often in a worse ecological state. Only about 2% of larger rivers are in the high ecological status category, and at least 41% of all Alpine rivers have been hydro-morphologically altered (Seliger and Muhar, 2018). Even in regions with a high share of water bodies recorded as being of good or high ecological status, there are significant rivers with lower status that must be restored to achieve the goals of the EU Water Framework Directive. In general, waterbodies in inner Alpine regions demonstrate better ecological status with more

than 80% of waterbodies being recorded as having at least a good ecological status. Both rural and intermediate regions show similar average values, around 59%, surpassing the overall Alpine average. Conversely, urban regions report a lower average of just under 44%. There are also significant data gaps on water body quality in certain regions, which should be addressed in the future. As each member state reports on ecological status using their own method, results are not directly comparable between states.

Trend of annual temperature change 1960–2021

Indicator explanation: the indicator is based on several global meteorological datasets compiled by Copernicus Climate Change Service following the developed methodology to relate recent (1991–2020) global temperature to 1850–1900, a period taken to represent the pre-industrial level (European environment agency, 2023). The dataset is released in a raster format, and was used to calculate Alpine NUTS 3 averages.



Trend of mean annual temperature change in period 1960 – 2021 per decade

0,3 EU average

0,1 – 0,2 °C | 0,2 – 0,3 °C | 0,3 – 0,4 °C | 0,4 – 0,5 °C | >0,5 °C

Alpine Convention perimeter

Rising annual temperatures are among the most direct consequences of climate change, causing more severe weather events such as heatwaves, droughts, and storms. The European continent, and Alps especially, show higher rates of increasing temperatures. Temperature anomalies are presented relative to a 'pre-industrial' period between 1850 and 1899 (the beginning of instrumental temperature records). During this period, greenhouse gases from the industrial revolution are considered to have had a relatively small influence on the global climate compared with natural influences.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

UNIVERSITY OF LJUBLJANA Biotechnical Faculty

Regional level: NUTS 3
Data sources: European Environment Agency (EEA), 2021. Global and European temperatures
Cartography: Tadej Bevk

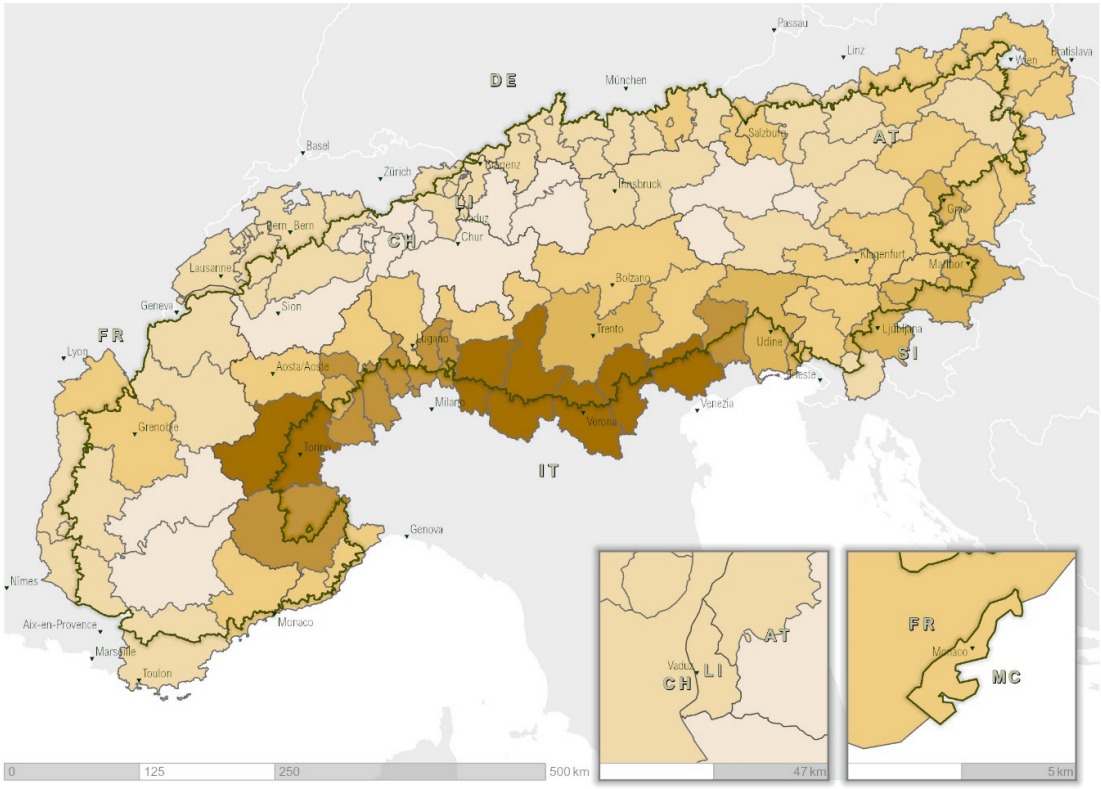
Rising annual temperatures are among the most direct consequences of climate change, and cause severe weather events such as heatwaves, droughts, and storms. The European continent, and the Alps especially, show higher rates of increasing temperatures. Temperature anomalies are presented relative to a 'pre-industrial' period between 1850 and 1899 (the beginning of instrumental temperature records). During this earlier period, greenhouse gases from the industrial revolution were considered to have had a relatively

small influence on the global climate compared with natural influences. Increasing temperatures pose significant threats to the high Alpine environment; quickly changing ecosystems are already visible in many places most directly by receding glaciers. Higher temperatures can also endanger water supplies to all Alpine-fringe areas which rely on steady supplies of water from thawing snow.

The Alps are heating up faster than both the global and European averages. The most significant change can be seen in the French Alps. There are minor differences in changes based on urban-rural typology: urban and rural regions are heating slightly faster than intermediate areas.

4.2.2 Life maintenance

Premature deaths per 100.000 inhabitants due to PM2.5 air pollution
Indicator explanation: This indicator illustrates the incidence of premature deaths caused by air pollution, specifically PM2.5 particles, per 100.000 inhabitants. Premature deaths are those that occur before an individual reaches the expected life expectancy for their country, categorized by gender and age. Premature deaths resulting from PM2.5 pollution



Premature deaths per 100.000 inhabitans due to PM2,5 pollution

53 EU average

0 – 15	15 – 30	30 – 53	53 – 80	80 – 120	120 – 150

Alpine Convention perimeter

Number of deaths in 2019 due to PM2,5 that occur before a person reaches the typical life expectancy for a country stratified by sex and age. Premature deaths are considered preventable if their causes can be eliminated. PM2,5 is particulate matter less than 2,5 microns, tiny solid or liquid particules, generally soot and aerosols. The size of the particles (2,5 microns or smaller, about 0.0001 inches or less) allows them to easily enter the air sacs deep in the lungs where they may cause adverse health effects.

are regarded as preventable if the factors leading to them can be mitigated or eliminated. This data is reported at the NUTS 3 level. Data refers to the year 2019.

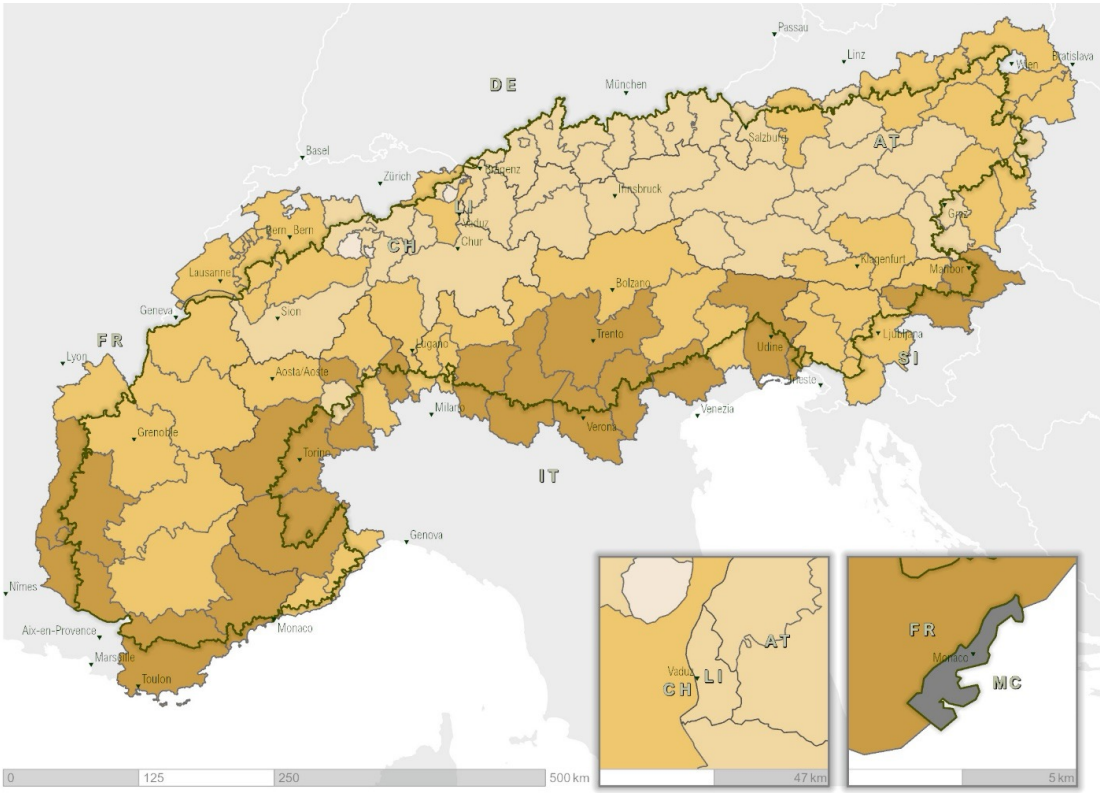
A higher value for this indicator signifies that the population in a specific region is more exposed to air pollution, particularly from PM2.5 particles, and thus experiences a less favourable environmental situation. Across Alpine regions, this metric varies widely, ranging from 5 to over 145, indicating significant disparities in air quality. Higher values tend to be reported in regions with major urban centres, notably in certain Italian regions in the Po basin where cities such as Turin, Verona, Vicenza, Bergamo, and Brescia are located. Other Italian Alpine regions and regions in South-Eastern part of the Alps also report elevated values, while Swiss regions generally report the lowest values. On average across Alpine regions, the number of premature deaths attributed to air pollution is around 42, which is lower than the EU average of 53.

Urban regions have the highest average value, nearly 70, surpassing both the Alpine and EU averages. Conversely, rural regions report the lowest average, at 30, while intermediate regions exhibit an average of 43, closely aligning with the Alpine average.

Aggregated risk of potential effects of climate change on society under continued very high emissions scenarios

Indicator explanation: This indicator provides a comprehensive model assessment of the potential hazards due to climate change, based on consideration of the following impact chains: heat stress on population, coastal floods on infrastructure, industry and service sectors, river floods or flash floods on population, river floods or flash floods on infrastructure, industry and service sectors, river floods or flash floods on the cultural sector, wildfires on the environment, and droughts on the primary sector. The aggregated risk model includes adaptive capacity, where higher adaptive capacities can reduce total risk. The assumptions on future climate change are based on very high emission scenarios (RCP 8,5) The model is presented at the NUTS 3 level and was updated in 2022, with the exception of Switzerland, Monaco, and Liechtenstein for which data is unavailable.

The average value for the EU stands at 1,51 while the Alpine regions exhibit a slightly lower average of 1,45, but with a large variance which ranges from 1,18 to 1,74. This suggests that the climate related risks in the Alps are expected to be both more and less pronounced compared to the broader EU, depending on the specific region. It is paramount to note that this is also the effect of high adaptive capacity in many Alpine regions. However, the adaptive capacity shows opportunities to respond effectively to coming climate risk and appropriate policies still need to be put into place to achieve this. In terms of urban-rural typology, urban regions will be more at risk compared to intermediate and rural ones.

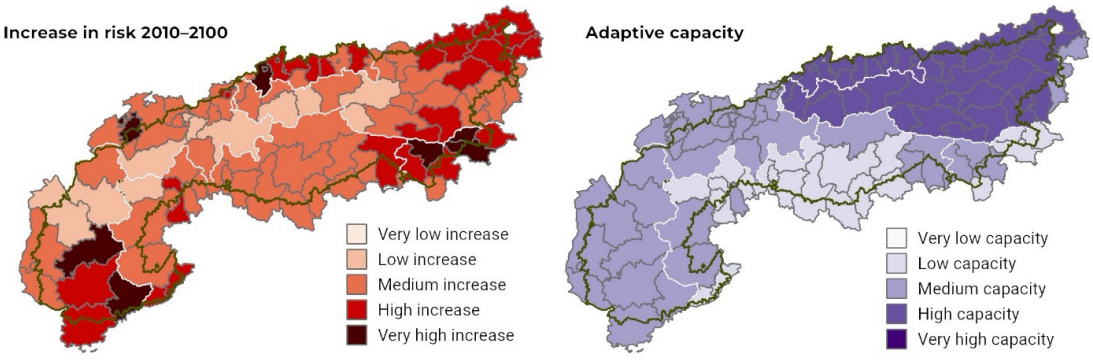


Aggregated risk of the potential effects of climate change on society under continued very high emissions scenario (RCP 8.5, model)

Very low | Low | Medium | High | Very high

No data

Alpine Convention perimeter



Climate change consequences differ between regions. The map shows results from 2022 update of ESPON-CLIMATE which is aligned with IPCC 5th Assessment Report's concepts of hazard, exposure, and vulnerability. The aggregated risk to climate change, which also includes adaptive capacity of regions, shows potential impacts of climate change under the assumption of continued very high emissions (RCP8.5) on infrastructure, population, protected areas, cultural amenities, and primary sector and tourism. The risks are assessed according to seven impacts chains: heat stress on population; coastal flood on infrastructure, industry, and service sectors; river flood on population; river flood on infrastructure, industry, and service sectors; flash floods on cultural sector; wildfire on environment; and droughts on primary sector. Risk assessment includes regions adaptive capacity, which enhances or counteracts the climate change impacts and thus leads to the reduction of a region's overall vulnerability to climate change. This includes social capacity, technological capacity, infrastructure capacity, economic capacity, and institutional capacity. Despite favourable adaptive capacity in most Alpine regions, climate change risk will significantly increase in the whole area.

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

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Regional level: NUTS 3
Data source: ESPON. 2022. Updating and Integrating CLIMATE Datasets and Maps. Final report.
Cartography: Tadej Bevk

4.2.3 Life flourishing

Share of respondents who perceive effects of environmental issues on daily life and health

Indicator explanation: This indicator shows the percentage of people who either totally agree or agree with the statement "Environment issues have a direct effect on your daily life and health." The data is from the year 2019 and is accessible at different NUTS levels, specifically NUTS 3 for Slovenia, and NUTS 1 for the other countries. There is no available data for Switzerland, Monaco, and Liechtenstein.

This indicator reflects the perceived significance of environmental issues on daily life and overall health within Alpine regions. A higher indicator value indicates that a greater proportion of people believe that environmental issues have a direct impact on their lives and health. Across the Alpine region, this share ranges from 60% to 95%, indicating that residents in the Alps generally acknowledge the significant impact of environmental issues on their well-being. In comparison to the EU average of 78%, the Alpine average is only marginally lower (77%).

Note: Due to data availability at different NUTS levels, it was not feasible to calculate an average for the urban-rural typology (urban/intermediate/rural regions) for this indicator.

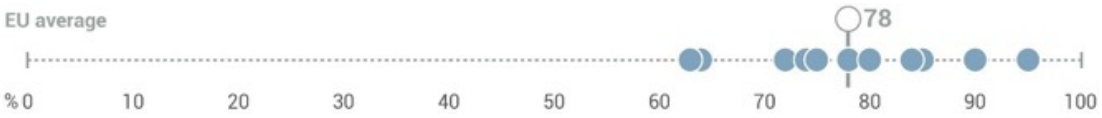


FIGURE 4.1 Percentage of people who either totally agree or tent to agree with the statement "Environment issues have a direct effect on your daily life and health" (NUTS 1; NUTS 3 for SI). (Source: Eurobarometer, 2019)

4.3 Infrastructure and services

Infrastructure in the Alpine area has been recognised as problematic in various studies such as those by: Marot *et al.* (2018), Humer and Palma (2013), Kolarič *et al.* (2019). Due to the demanding terrain, several challenges exist such as the closure of services because of depopulation within remote areas; poor accessibility of services for elderly and other vulnerable population groups such as youth; the digitalisation of services (problematic due to the poor broadband coverage in some areas); and others. The coverage of infrastructure and services as relevant for QoL is based on five topics: 1) housing, 2) connectivity, 3) public services, 4) leisure and cultural activities, and 5) commercial services. The services have been clustered according to how they are provided; whether they are market based (shops) or publicly provided (healthcare, child-care, education, elderly care, library, post). Altogether seven indicators cover the topic of infrastructure and services, most focusing on accessibility analysis pertaining to individual services. Data on housing was not available. As a result of this, some information was collected via the survey (see Chapter 5 for more). The accessibility has been calculated based on population weighted data-weighted data.

The accessibility of services was evaluated using the recommended distances for services in question provided by Barton and Tsourou (2000). The optimum differentiates between the services we use on daily basis, e.g. shops, school, kindergarten etc., and the services used less frequently, e.g. hospital, pharmacy. The analysis shows that the core Alpine area generally fails to achieve good accessibility for analysed services, while Alpine fringes where more urban centres can be found are better served.

For life maintenance we considered the population growth in the period of 5 years. Changes to population are relevant with regard to issues of demand and the required supply of services. There is a difference among Alpine regions regarding population growth; urban regions seem to be stagnating, while there is weak growth in intermediate and rural regions.

TABLE 4.4 Infrastructure and services indicators, compared to EU average and by urban-rural typology. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Indicator	EU	AC	Urban	Inter.	Rural
ENABLERS					
Average population-weighted distance to hospital	/	6,9 km	4,5 km	5,4 km	10,3 km
Average population-weighted distance to nursery	/	2,9 km	1,8 km	2,6 km	3,7 km
Average population-weighted distance to primary school	/	1,4 km	1,0 km	1,3 km	1,9 km
Average population-weighted distance to grocery store (m)	/	1,3 km	0,9 km	1,1 km	1,7 km
Average population-weighted distance to cultural amenities: cinemas, theatres, libraries	/	3,5 km	1,9 km	2,7 km	5,5 km
Share of households with broadband access	90,6%	92%	91,4%	93,9%	90,3%
LIFE MAINTENANCE					
Population growth trend (2017/2021)	0,3%	0,8%	0,2%	1,1%	0,6%
LIFE FLOURISHING					
Perceived own health (1 – very good, 5 – very bad)	2,23	1,99	2,09	1,88	2,02

In the life flourishing category indicator perceived own health is presented. This shows that, on average, Alpine residents feel healthier than the EU average. Within the Alps, residents of intermediate regions perceive their health most positively, a little less so in rural regions, and less again in urban regions. More on satisfaction with access to services is provided in Chapter 5.

4.3.1 Enablers

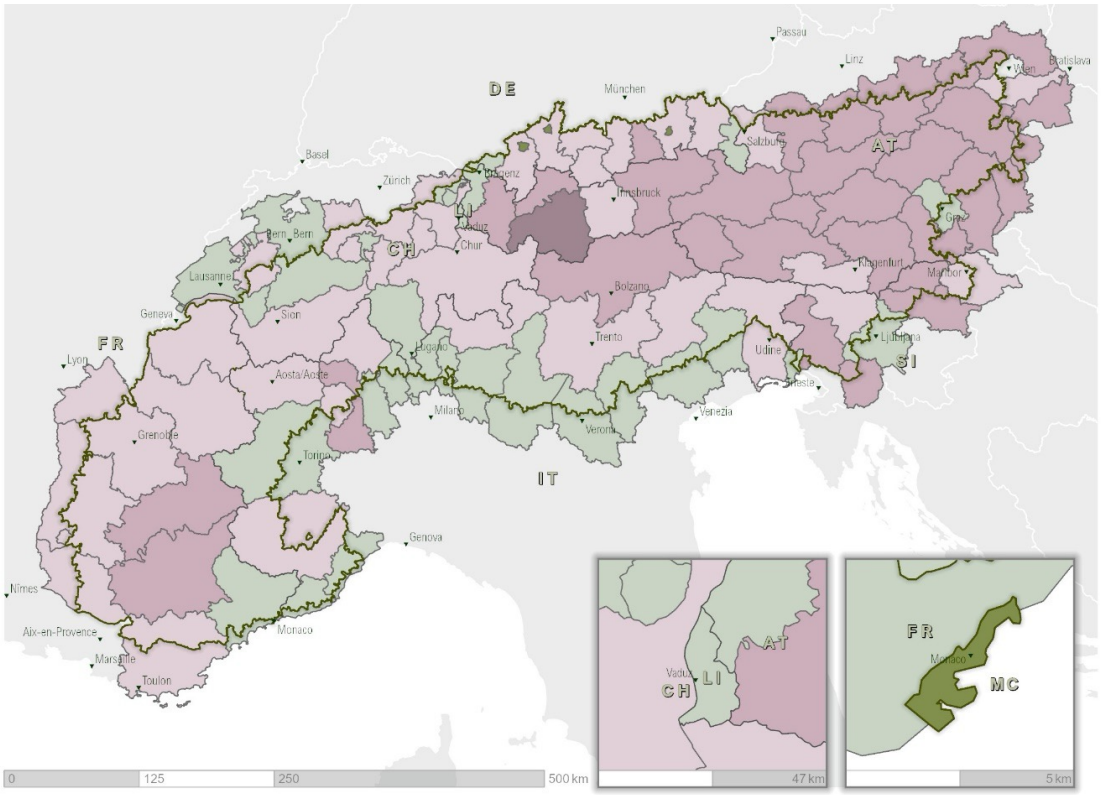
Average population-weighted distance to hospital

Indicator explanation: This indicator shows the average population-weighted distance along road networks to hospitals in Alpine NUTS 3 regions. The data is derived from GIS analysis using information from Open Street Map (OSM) and is for the year 2023.

Hospitals play a critical role in emergency healthcare as well as addressing health-related issues. In such situations, proximity to a hospital can be lifesaving. On average, the distance to hospitals across Alpine regions is approximately 6,9 km. However, the values for this indicator range widely, from less than 500 metres to over 14 kilometres. There is one region that significantly exceeds this range, with an average distance of more than 21 kilometres; the Austrian region of Tiroler Oberland which is categorized as rural. In general, the average distances are longer in the Eastern part of the Alpine perimeter.

When considering urban-rural typology, urban regions report the shortest average distance to hospitals; these areas tend to have a higher concentration of urban centres with accessible hospitals. In these regions, the average distance is slightly over 4,5 kilometres. Conversely, rural regions exhibit the longest average distance to hospitals, where residents typically need to travel over 10,3 kilometres to reach their nearest hospital. Intermediate regions fall in between, with an average distance just above 5,4 km.

Note: For this indicator, no EU average has been calculated.



Average population-weighted distance to hospital

< 2,5 km | 2,5 – 5 km | 5 – 8 km | 8 – 15 km | > 15 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as hospitals. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 5 km are considered well accessible for services that are not generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

UNIVERSITY OF LJUBLJANA
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Regional level: NUTS 3
Data sources: OpenStreetMap, 2023
Cartography: Tadej Bevk

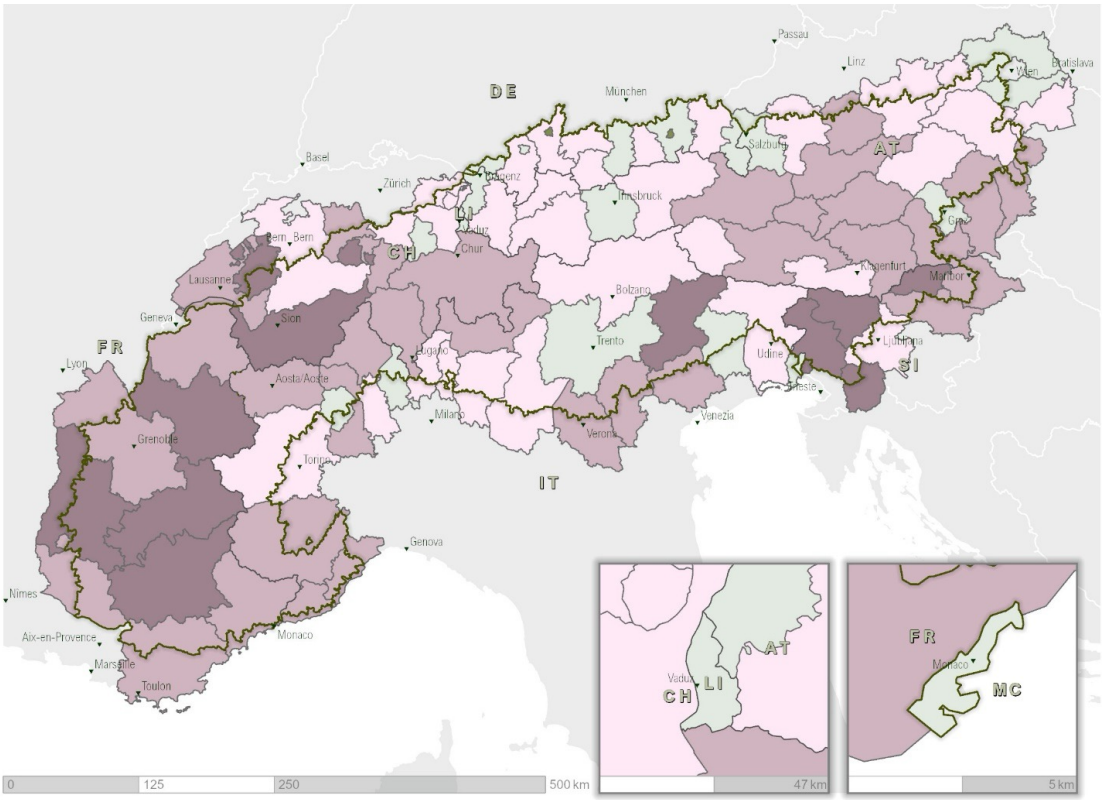
Average population-weighted distance to nursery

Indicator explanation: This indicator reflects the average population-weighted distance to nurseries, across Alpine NUTS 3 regions. The data is generated through GIS analysis using information from Open Street Map (OSM) and is for the year 2023.

Proximity to nurseries is of particular importance for those with young children, as it directly affects their daily routines and commutes. When caring for small children who attend nurseries, adults must accompany them, typically using transportation such as cars, bicycles, or public transit. In cases of shorter distances, they may even walk with the child(ren). Across Alpine regions, the average distance to nurseries exceeds 2,9 km, signifying longer travel times and more strenuous commuting efforts.

The range of average distance values across Alpine regions varies from 400 metres to over 8,5 kilometres. Urban regions report the shortest distances with an average distance slightly exceeding 1,7 km. In rural regions, the average distance is more than 3,7 kilometres, while in intermediate regions, it stands slightly above 2,6 kilometres. However, in this case, distances up to 2,5 kilometres, considered walkable for adults, are not walkable for small children.

Note: For this indicator, there is no EU average calculated.



Average population weighted distance to nursery

< 0,5 km | 0,5 – 1,5 km | 1,5 – 2,5 km | 2,5 – 5 km | > 5 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as kindergarten. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 0,5 km are considered well accessible for services that are generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

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Regional level: NUTS 3
Data sources: OpenStreetMap, 2023
Cartography: Tadej Bevk

Average population-weighted distance to primary school

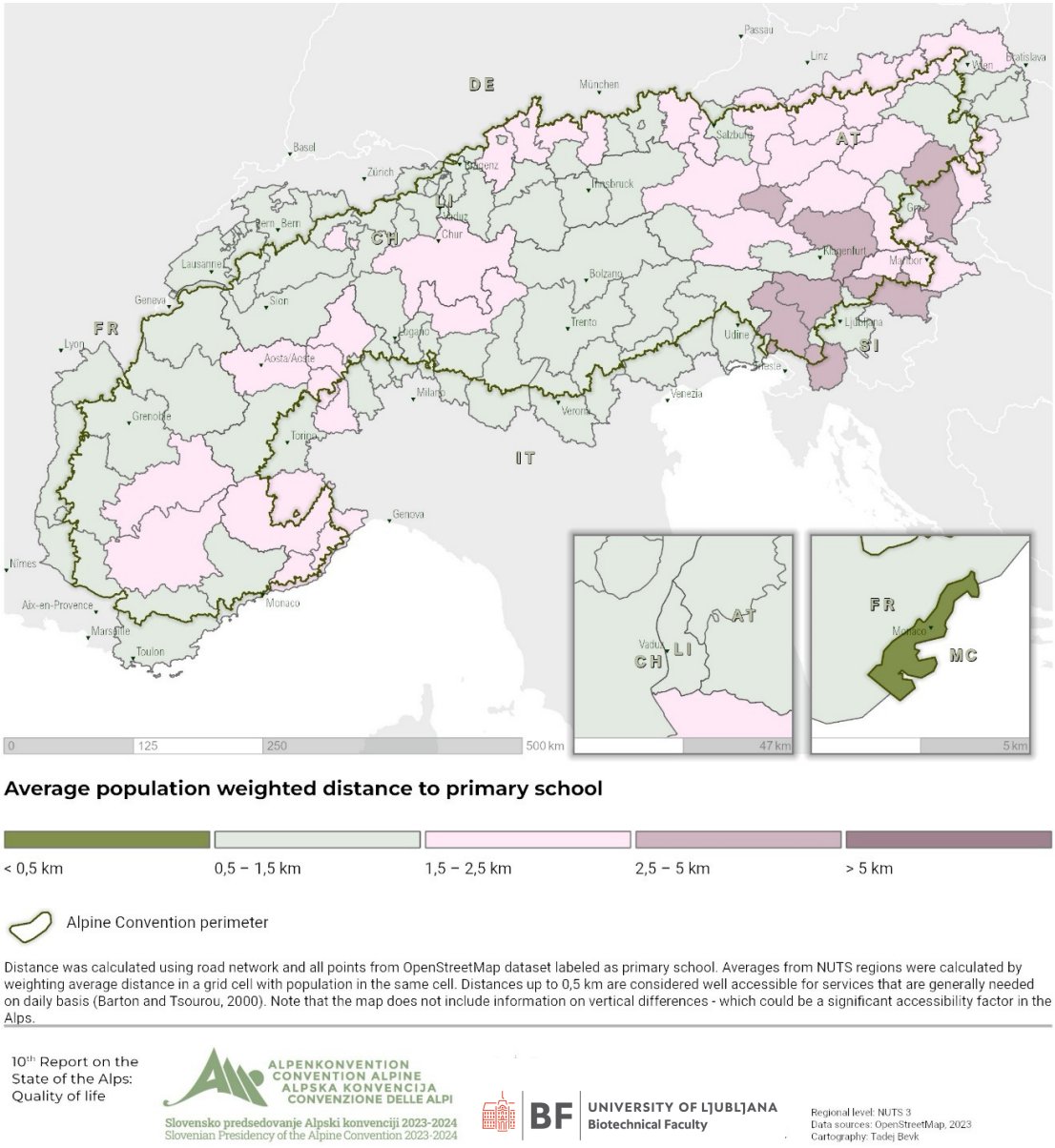
Indicator explanation: The average population-weighted distance to primary schools is represented by this indicator across Alpine NUTS 3 regions. This data is derived through GIS analysis using information from Open Street Map (OSM) and corresponds to the latest available year; 2023.

The proximity of primary schools is especially relevant for residents in Alpine regions who have children of primary school age. A shorter distance to such schools is advantageous, as it requires less time to transport children to and from school. Such journeys can be done on foot or by bicycle (if the distance is shorter than about 2,5 km), and older children can often travel safely to school independently. However, vertical differences (topography) can significantly affect travel time even if the distance is shorter, as well as the choice of transport. Across Alpine regions, the average distance to primary schools is approximately 1,5 km. However, this average distance varies considerably across different Alpine regions, ranging from slightly over 250 metres to nearly 3,2 kilometres. The longest average distances are observed in South-Eastern Alpine regions.

In terms of urban-rural typology, urban regions typically have the shortest distances to primary schools, averaging around 1 kilometre. This is because urban centres tend to have a higher concentration of schools and population. On the other hand, rural regions have

the longest average distance, exceeding 1,9 kilometres. This means that children in rural areas, on average, need to travel longer distances to reach school, which can be more time-consuming, or caregivers may need to transport them by car if there are no frequent public transport options. Intermediate regions fall in between, with an average distance of almost 1,3 km to primary schools.

Note: For this indicator, no EU average has been calculated.



Distance was calculated using road network and all points from OpenStreetMap dataset labeled as primary school. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 0,5 km are considered well accessible for services that are generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

Regional level: NUTS 3
Data sources: OpenStreetMap, 2023
Cartography: Tadej Bevk

Average population-weighted distance to grocery store

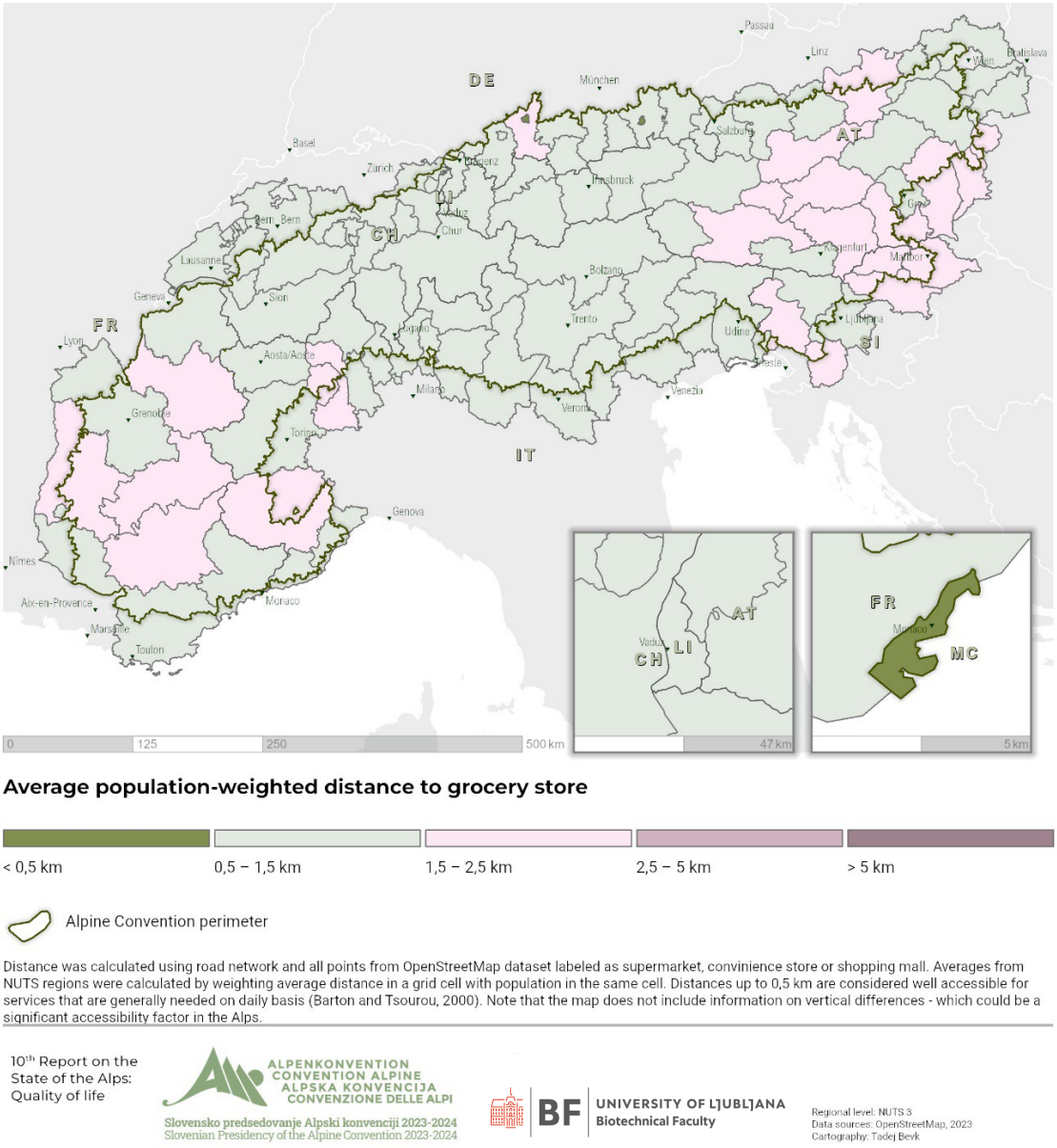
Indicator explanation: The average population-weighted distance to grocery shops in metres is represented by this indicator across Alpine NUTS 3 regions. This data is derived from GIS analysis using information from Open Street Map (OSM) and is current for 2023.

The proximity of grocery shops plays a crucial role in ensuring access to essential items like food and hygiene products for residents across Alpine regions. Shorter distances to grocery shops are advantageous as they require less time to acquire basic necessities, and may even be within walking distance, if they are less than 2,5 kilometres away. Across the Alpine regions, the average distance to grocery shops stands at approximately 1,3 kilometres. However, this distance varies widely, ranging from around 200 metres to nearly 2,5 kilometres. It follows that, in some regions, grocery shops are not within convenient

walking distance. Typically, such stores are located in more remote areas. In contrast, the Inner Alpine regions generally have shorter average distances compared to the regions in the Eastern and Western parts of the Alpine perimeter.

Urban regions tend to have shorter average distances because they encompass more urban centres with a greater number of grocery shops. Consequently, the average distance in urban regions is under 1 kilometre, specifically just under 950 metres. Conversely, rural regions exhibit the highest average distance, surpassing 1,6 kilometres, while intermediate regions have an average distance slightly above 1,1 kilometres.

Note: For this indicator, no EU average has been calculated.



Average population-weighted distance to grocery store

< 0,5 km | 0,5 – 1,5 km | 1,5 – 2,5 km | 2,5 – 5 km | > 5 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as supermarket, convinience store or shopping mall. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 0,5 km are considered well accessible for services that are generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

BF UNIVERSITY OF LJUBLJANA Biotechnical Faculty

Regional level: NUTS 3
Data sources: OpenStreetMap, 2023
Cartography: Tadej Bevk

Average population-weighted distance to cultural amenities: cinemas, theatres, libraries

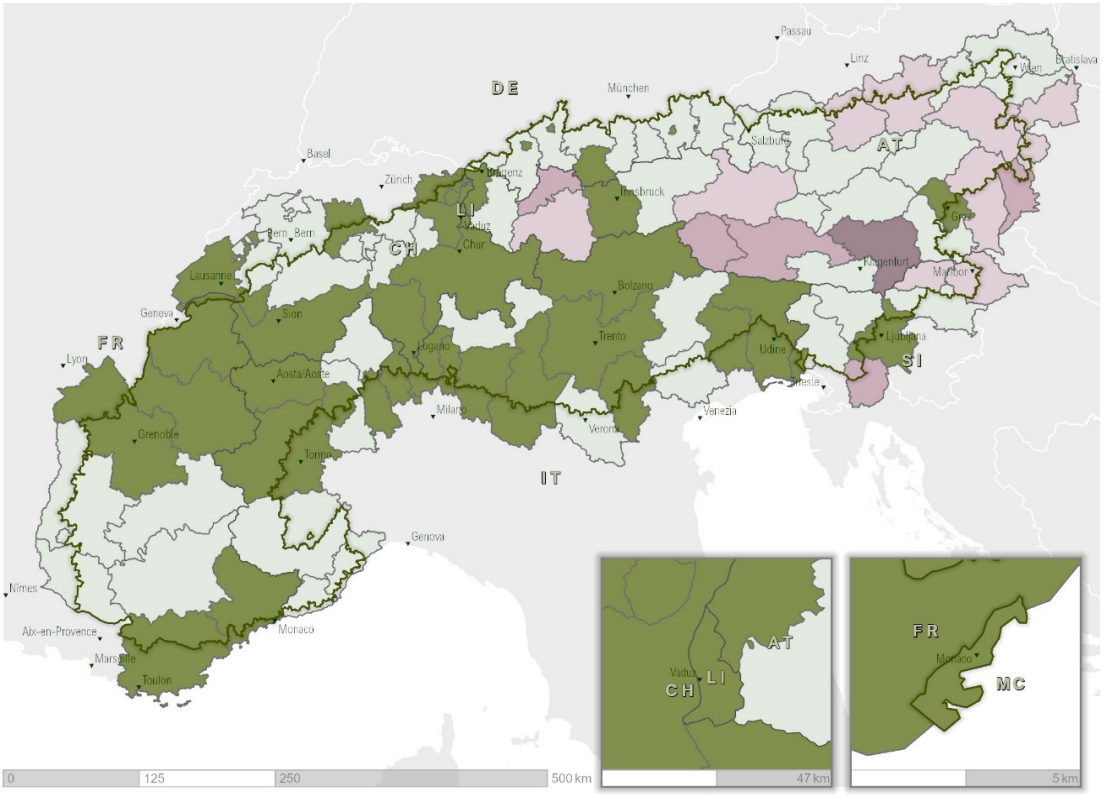
Indicator explanation: The average population-weighted distance to cultural amenities, including venues such as cinemas, theatres, and libraries is represented by this indicator across Alpine NUTS 3 regions. The data is derived from GIS analysis utilizing information from Open Street Map (OSM) and for the year 2023.

Cultural amenities are often considered to be a positive contributor to QoL, as they provide opportunities for various free time activities. When these amenities are closer in proximity,

individuals are more likely to utilize them. These amenities can be reached on foot or by bicycle if the distance is shorter than 2,5 kilometres. Across Alpine regions, the average distance to these amenities is approximately 3,5 kilometres. However, this average varies significantly among Alpine regions, and typically lies between 1 and over 10 kilometres. There is one exception, the Unterkärnten region in Austria reported an average distance of over 16,5 kilometres.

As is common with other indicators related to average distance, urban regions tend to have the shortest distances, with an average of just under 2 kilometres. In contrast, rural regions tend to have the longest distances, averaging nearly 5,5 kilometres, while intermediate regions fall in between with average distances of approximately 2,7 kilometres.

Note: For this indicator, there is no calculated EU average.



Average population-weighted distance to cultural amenities: theatre, library or cinema

< 2,5 km | 2,5 – 5 km | 5 – 8 km | 8 – 15 km | > 15 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as library, theatre or cinema. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 5 km are considered well accessible for services that are not generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

UNIVERSITY OF LJUBLJANA Biotechnical Faculty

Regional level: NUTS 3
Data sources: OpenStreetMap, 2023
Cartography: Tadej Bevk

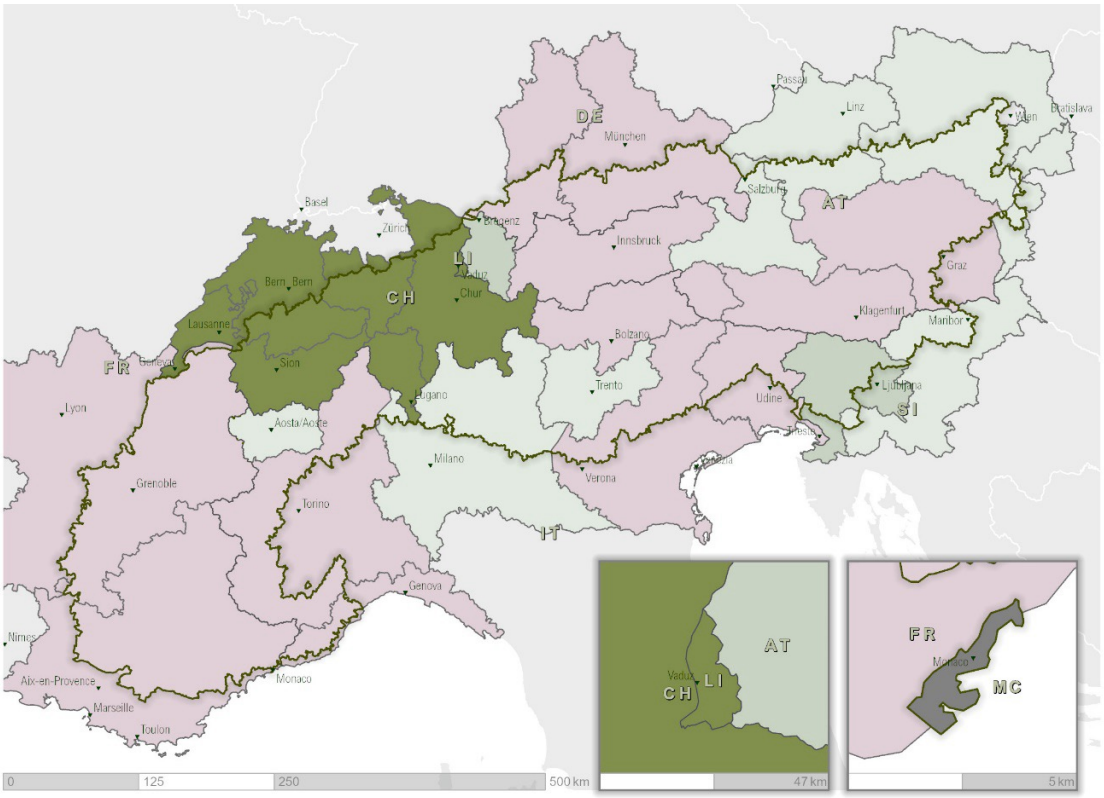
Share of households with broadband access

Indicator explanation: This indicator provides information on the percentage of households in Alpine NUTS 2 regions that have access to the internet. The data is from the year 2021. Data was unavailable for Monaco.

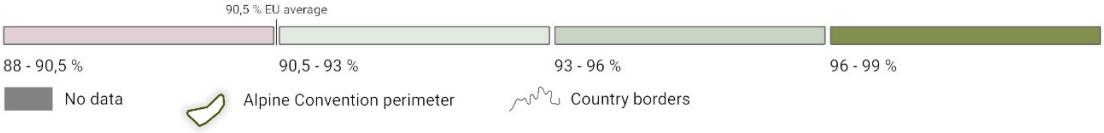
Home internet access provides numerous opportunities for individuals, including remote work, online education, and various personal uses such as internet banking, online shopping, social media, and accessing news. Particularly during and after the pandemic, internet access has become vital for residents in Alpine regions and around the world, facilitating work, education, and social connections. In remote Alpine areas, internet access is crucial for maintaining digital connectivity with wider areas.

While the average EU household internet access rate is around 90,5%, Alpine countries and regions tend to surpass this figure, with rates exceeding 92%. Nevertheless, the goal is to achieve complete internet coverage across the entire Alpine area. Household internet access rates in Alpine regions range from 88% to 99%, with some Italian, French, and German Alpine regions reporting rates below 90%, while Swiss Alpine regions and Liechtenstein report higher rates.

In terms of urban-rural typology, urban regions have the lowest average access rate, just above 91%. Intermediate regions have the highest average access rate, just below 94%, and rural regions maintain an average slightly exceeding 90%.



Share of households with broadband access



Share of households that reported available access to broadband internet in the EU survey on the use of Information and Communication Technologies. The ICT survey covers those households having at least one member in the age group 16 to 74 years old. Internet access of households refers to the percentage of households that have an internet access, so that anyone in the household could use the internet.

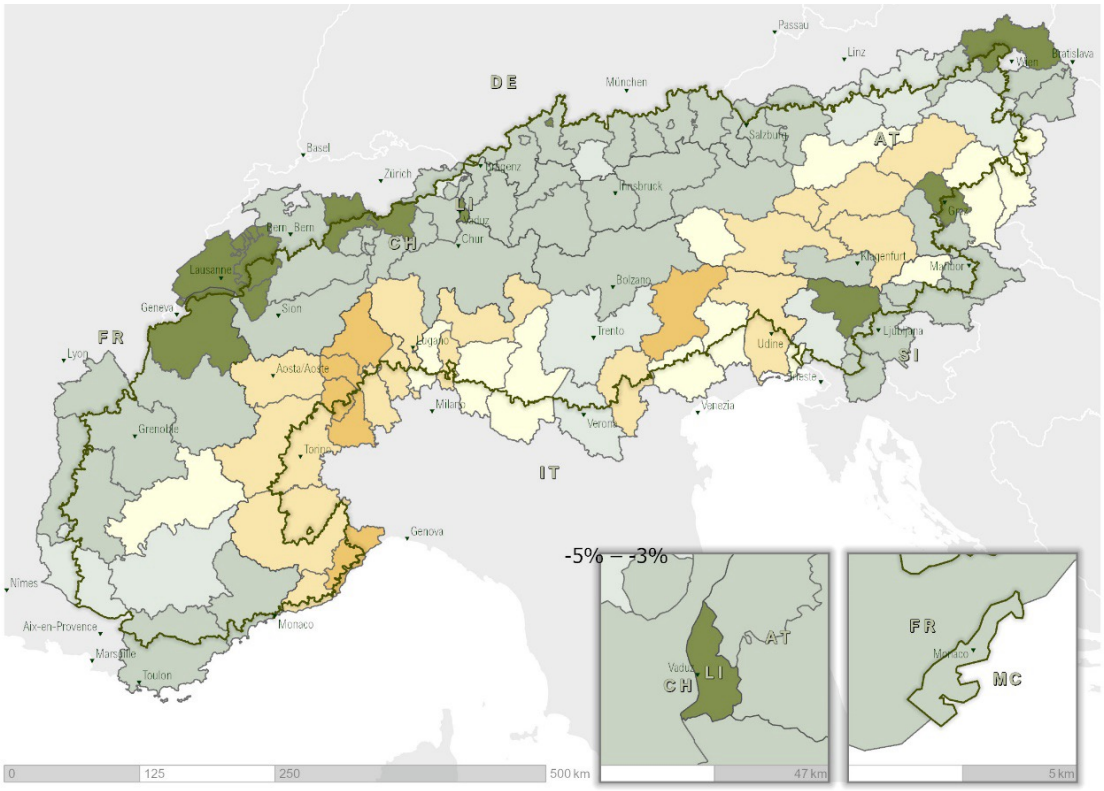
4.3.2 Life maintenance

Population growth trend (2017/2021)

Indicator explanation: The population growth trend indicator presents an index that reflects changes in the population over a 5-year period, specifically between the years 2017 and 2021. This data is available at the NUTS 3 regional level.

This demographic indicator provides insights into population changes within Alpine regions. It assesses whether the population in a specific region has grown or declined during the reference period. Values above 0% indicate positive population growth, while values below 0% signify a decrease in the number of residents. Particularly, values below 0% suggest an aging population and a less favourable demographic situation in the given region.

The average EU value slightly exceeds 0%, while Alpine countries exhibit slightly higher index values, although they remain quite similar to the EU average. When considering the average for Alpine regions, it can be seen that it closely aligns with the EU average, indicating that, in general, the population in Alpine regions experienced a modest increase during the reference period. Index values across Alpine regions range from -5% to 4%, with negative population changes primarily observed in certain Italian and Austrian regions.



Population growth trend (2017/2021)

0,3% EU average

-5% – -3% | -3% – -1% | -1% – 0% | 0% – 1% | 1% – 3% | 3% – 5%

Alpine Convention perimeter

Population growth index based on population data from 2017 and 2021.

Regarding urban-rural typology, there were no significant differences among urban, intermediate, and rural regions, as all three categories showed average values just above 0%. However, intermediate regions tended to have slightly higher values (above 1%), while urban and rural regions exhibited average values ranging from 0,2% to 0,6%.

4.3.3 Life flourishing

Perceived own health

FIGURE 4.2 Perceived own health (NUTS 1: DE and IT; NUTS 2: AT, CH and FR; NUTS 3: SI). (Source: ESS, round 10, 2020)

Indicator explanation: This indicator reflects self-perceptions of overall health among residents in Alpine regions. Respondents were asked to rate their general health on a scale from 1, representing very good health, to 5, representing very bad health. The specific question posed to individuals was, "How is your health in general?" Data for Alpine regions was collected during round 10 of the European Social Survey (ESS), which focused on topics related to democracy and digital social contacts. The data pertains to 2020 and is available across various NUTS levels: NUTS 1 for Germany and Italy, NUTS 2 for France, Switzerland, and Austria, and NUTS 3 for Slovenia. There is no available data for Liechtenstein or Monaco.

However, there is a similar indicator available for Liechtenstein which pertains to the year 2017 (source: Liechtensteinische Gesundheitsbefragung, 2017) Residents were asked the question "How is your health in general". 86,9% of respondents reported that their health was rather good or very good, meaning that self-perceptions of own health in Liechtenstein were similar to the perceptions of residents in other Alpine regions.

Perceived personal health is a subjective indicator that reflects individuals' self-assessment of their own health. It is closely related to factors like the accessibility of healthcare services, an individual's lifestyle and significantly influences the overall QoL for residents in Alpine regions. Lower values in this indicator indicate that more people perceive their general health as good, while higher values suggest that general health is reported as only fair, or even poor. Across Alpine regions, the values for this indicator range between 1,6 and 2,3, indicating that, in general, people believe their health to be good. All Alpine regions score below the EU average of 2,23, signifying that the perception of general health in the Alps is more positive compared to the broader EU. The Alpine average for this indicator is 1,81, further underscoring the overall good health perception among residents in the Alpine region. Only specific Swiss regions reported values lower than the Alpine average in this regard.

Considering urban-rural typology, intermediate regions reported the lowest value among regions, below 2, meaning that people's own health perceptions in those regions was better compared to urban and rural regions. Both urban and rural regions reported values slightly above 2. However, overall health perception in all types of regions was considered to be good.

Note: Due to data availability at different NUTS levels, the averages for the urban-rural typology (urban/intermediate/rural regions) include data for different NUTS levels.

4.4 Work and financial security

Several authors have researched the work conditions and situation in the Alps and claim that job opportunities, work conditions, quality of work life, and job satisfaction highly influence overall life satisfaction (Judge *et al.*, 2001; Heimerl *et al.*, 2020). As Price and Ferrario (2014) argue, the availability of jobs and other professional opportunities is the fundamental basis of decisions to stay in, return to, or leave a region. Furthermore, Heimerl *et al.* (2020) claimed that Alpine regions have been experiencing a growing shortage of skilled workers for many years, especially in tourism sectors. Besides this gap, a further problematic that needs to be mentioned is the brain drain – the loss of skilled intellectual and technical individuals when they move mostly to larger urban centres (Debarbieux and Camenisch, 2011; Perlik, 2018). Loss of youth is not only visible in the job market, but also through overall demographics since it contributes to the aging of the population. Price and Ferrario (2014) have described an opposite phenomenon when highly qualified individuals choose to settle in the mountains and become actors in local development as they become "new inhabitants of the Alps" or "mountain people by choice".

For the topic of work and financial security three topics are described: 1) work opportunities and conditions, 2) social security, and 3) innovation capacity and support for economic transition. Altogether 8 indicators are presented in this subchapter.

TABLE 4.5 Work and financial security indicators, compared to EU average and by urban-rural typology. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Indicator	EU	AC	Urban	Inter.	Rural
ENABLERS					
Duration of parental leave (NUTS 0, weeks)	50	38,2	4,5 km	5,4 km	10,3 km
Share of employed persons commuting to another region (NUTS 2) within their country	5,7%	7,7%	1,8 km	2,6 km	3,7 km
Labor productivity	48.000 EUR	65.000 EUR	68.000 EUR	63.000 EUR	64.000 EUR
Average number of usual weekly hours of work in main job	37	36,6	37,1	36,3	36,5
LIFE MAINTENANCE					
Equalised disposable income of households (per inhabitant)	17.200 EUR	27.000 EUR	25.000 EUR	31.900 EUR	22.400 EUR
Share of people at risk of poverty rate	20,8%	16,2%	17,3%	16,4%	15,0%
Share of employed persons in service sector (NACE)	59,1%	52,7%	55,0%	56,8%	45,3%
LIFE FLOURISHING					
Perception about income with regards to comfort of living (1 – living comfortably, 4 – very difficult)	1,95	1,63	1,71	1,58	1,64
Satisfaction with main job (0 – extremely dissatisfied, 10 – extremely satisfied)	7,32	7,49	7,32	7,68	7,49

In the enablers pillar, several indicators were described such as: duration of parental leave (regulated on the national level), employed persons commuting to another region within their country, and average number of weekly hours of work in main job. To represent life maintenance, the income of households was investigated (derived from data within national statistics) and people at risk of poverty. The data shows that the Alpine regions predominantly possess a good economic situation, with households in all types of regions having more disposable income than the EU average and thus fewer people are at risk of poverty. There seems to be more commuting in the Alps compared to the EU average.

Life flourishing was specified by the indicators 'perception about income for comfortable living' and 'satisfaction with jobs'. Both indicators reflect the seemingly better economic situation which exists in the Alps, as people tend, in general, to be more satisfied with both their income and their jobs.

4.4.1 Enablers

Duration of parental leave

Indicator explanation: The duration of parental leave refers to the length of paid leave available to both mothers and fathers in Alpine countries (at the NUTS 0 level) during 2022, (based on the data from OECD) and 2023 for Slovenia. This indicator encompasses the combined duration of time that parents can take to spend with their children or provide care for sick children until the child reaches a certain age (as determined by national legislation). It does not include maternity or paternity leave. The exact data for Liechtenstein and Monaco could not be provided.

Paid parental leave is a benefit that offers numerous advantages, positively impacting the well- being of both children and parents. It plays a significant role in promoting the health and mental state of young children and their caregivers, both mothers and fathers. Moreover, it contributes to job security and enhances household stability. Nevertheless, the allocation of available paid parental leave is not equally distributed among partners in all Alpine countries. In Austria, Germany, and Italy, women are entitled to longer parental leave compared to men. In France, and Slovenia, both partners can receive an equally distributed leave (six months in France, and eleven months in Slovenia). In Italy, men are not granted any paid parental leave, while women are entitled to it. In Austria, and Germany, men can take approximately 2 months of parental leave, while women can take around 10 months.

The duration of paid parental leave varies across different countries, including those in the EU, and Alpine regions. For instance, Switzerland does not have a designated parental leave policy, while Austria, Germany, and France provide approximately one year (about 52 weeks) of leave. In Italy, parents are entitled to six months (26 weeks) of leave, whereas in Slovenia, the duration extends to around eleven months (46 weeks). Some countries also offer extended parental leave options for specific circumstances and the length of paid parental leave can also depend on the division of leave taken between the parents. Some countries also provide the option of shared parental leave, which can be taken by either parent or caregiver, or the leave can be transferred from one partner to the other. Overall, the average duration of paid parental leave across the EU is close to one year or around 50 weeks, providing parents with the necessary support and flexibility required to balance their work and family responsibilities.

The average duration of parental leave in Alpine countries is approximately 38,2 weeks (around nine months), which is shorter than the EU average. This discrepancy is largely attributed to Switzerland's lack of a parental leave policy, which significantly impacts the overall Alpine average. Nonetheless, and apart from Italy, the remaining Alpine countries offer longer parental leave options than the Alpine average. Austria, France, and Germany even exceed the overall EU average duration.

Source: OECD, Family Database, Summary of paid leave entitlements available to mothers and fathers (provided from OECD, June 2023). For Slovenia: eUprava, Parental leave (provided from eUprava, October 2023).

Share of employed persons commuting to another NUTS 2 region within their country

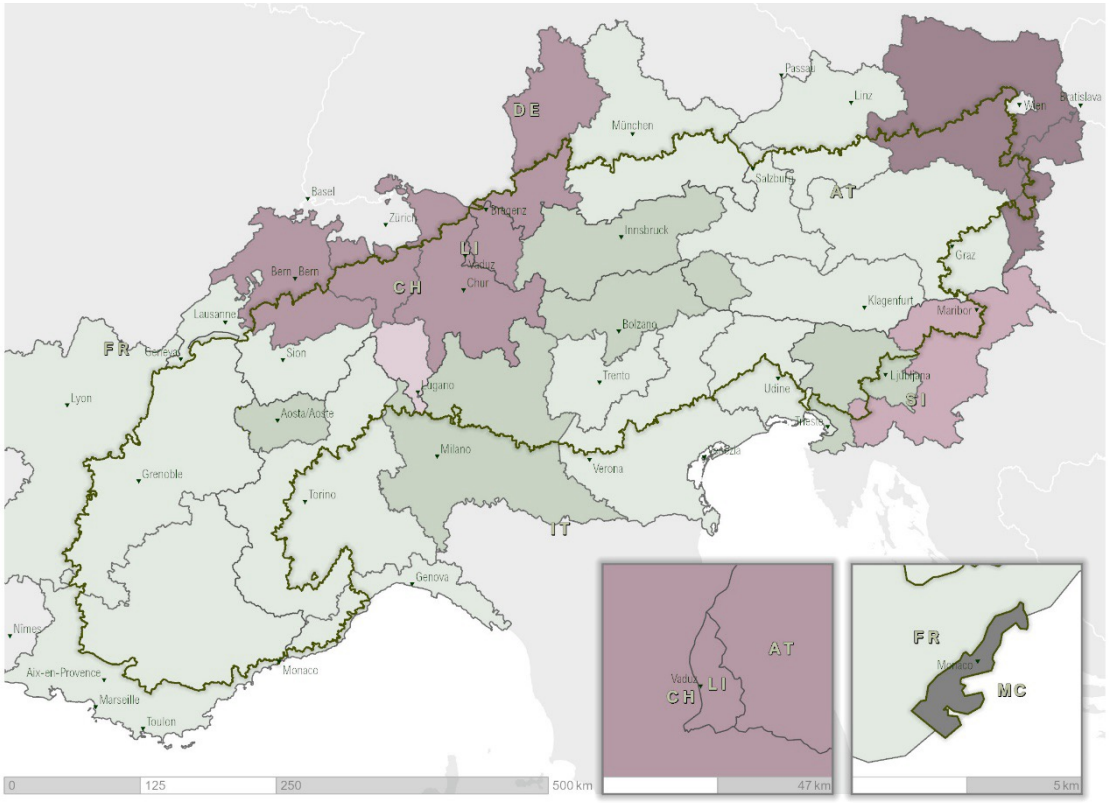
Indicator explanation: The indicator represents the share of employed persons who commute to another NUTS 2 region within their country for work. For Liechtenstein, the data represents the share of employed people commuting to another region in neighbouring countries. Data is presented at NUTS 2 level, and a commute is defined as travel that crosses NUTS 2 boarder. Data refers to the year 2022 for Austria, France, Germany, Italy, and Switzerland; 2022 for Slovenia and the Austrian region of Vorarlberg; and 2021 for Liechtenstein. Data is not available for Monaco.

This indicator provides insights into the availability of employment in regions as well as the accessibility of other regions from the region of origin. Commuting to another region

for work is related with the job opportunities that individuals have in a certain region. Lower values of this indicator signify less commuting and thus a lesser environmental impact as well as, all else being equal, the better economic development of the (given) region.

Employed people in Alpine regions tend to commute more compared to the EU average of 5,7% as, on average, 10% of employed people within Alpine countries commute to another region for work, while the average value for Alpine regions only, is slightly lower; 7,5%. However, the share varies across Alpine regions, as some regions report values higher than 30%, whereas other shares are reported as being lower 3%. The higher average value for Alpine countries is influenced by high shares for certain regions (the outstanding exceptions with shares higher than 30% are the Austrian regions of Burgenland and Lower Austria, where the high shares are related to work opportunities that nearby Vienna offers). When interpreting the indicator, it is important to keep in mind the geographical context of the regions – nearby metropolitan areas, (when declared as their own region) can have a significant impact on near regions – as is most likely the case with regards to Vienna and the two of Vienna on aforementioned regions. In general, Swiss regions reported higher shares of commuting as well.

Regarding the urban-rural typology, the lowest share of commuting was reported in urban regions (below 5%), where there was usually a higher variety of job opportunities. Average



Share of employed persons commuting to another NUTS 2 regions within their country

5,7 % EU average

0 – 2,5 % | 2,5 – 5,7 % | 5,7 – 7,5 % | 7,5 – 10 % | 10 – 20 % | 20 – 40 %

No data

Alpine Convention perimeter

The data was calculated using Eurostat's data from Labor Force Survey, which is a large household sample survey providing quarterly results on labour participation of people aged 15 and over and on people outside the labour force. The survey covers persons aged 15 years and over who live in private households.

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

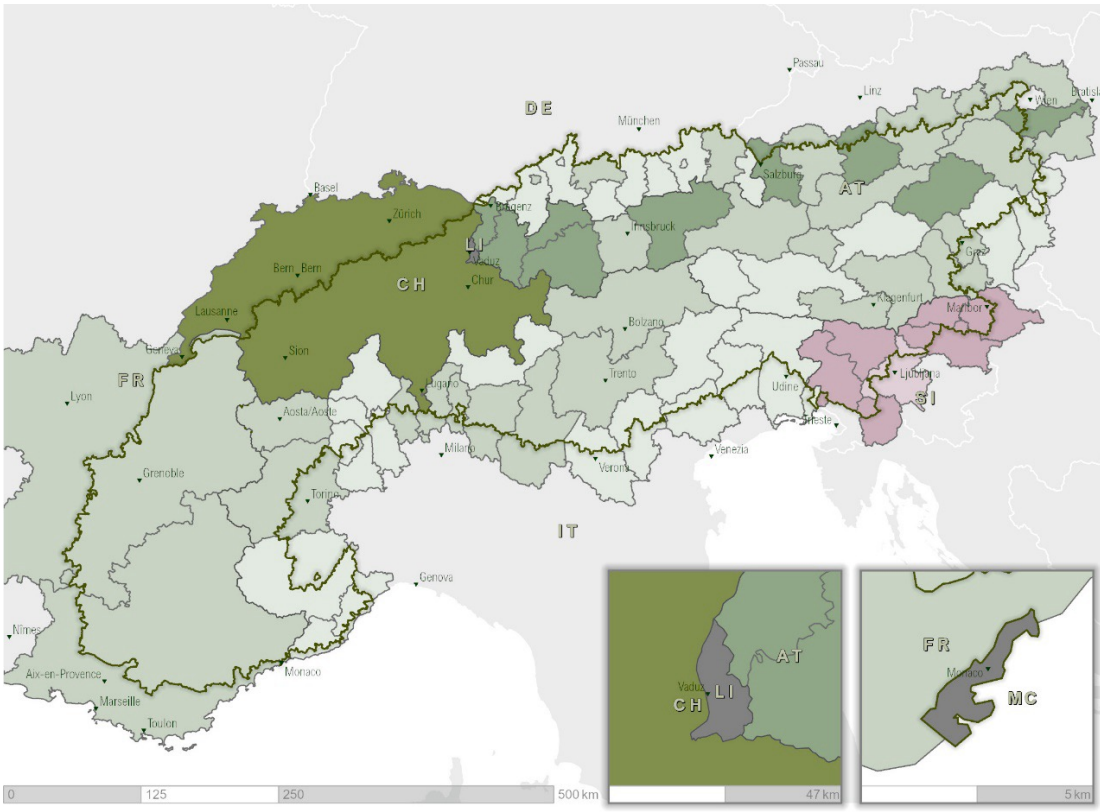
UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

Regional level: NUTS 2
Data sources: Eurostat, 2021
Cartography: Tadej Bevk

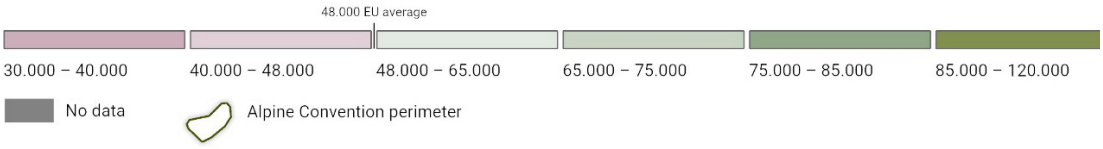
shares for intermediate and rural regions were much higher (9,8% for rural regions and 8,6% for intermediate regions. Average shares for those two types were reasonably higher due to a lack of, or a lower number of bigger urban centres offering employment, meaning employed people need to commute to another region for work.

Labour productivity

Indicator explanation: Labour productivity measures the amount of goods and services produced by each member of the labour force or the output per input of labour. It is measured as the value added per employed person. No data is available for Lichtenstein and Monaco. Data for France was available at NUTS 2 level, for Switzerland at NUTS 0 level, and for other countries at NUTS 3 level. Data relates to 2017 with the exception of Switzerland, where the data relates to 2021.



Labour productivity in EUR per person employed



Labour productivity measures the amount of goods and services produced by each member of the labour force or the output per input of labour. It can be measured in variety of ways, here it is calculated as the value added per employed person

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

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Regional level: NUTS 3, NUTS 2 (FR), NUTS 0 (CH)
Data sources: Eurostat, 2017
Cartography: Tadej Bevk

The average labour productivity for the EU is just below 50.000 EUR. Most of the Alpine regions show relatively high labour productivity, with some regions reaching more than 70.000 EUR added value per person employed, meaning they are among the most productive regions in Europe. Consequently, the average labour productivity for Alpine countries, 68.000 EUR, surpasses the EU average. If considering only the available regional

data, the average value for Alpine regions scores just above 64.500 EUR. Notably, Austrian regions achieve particularly high labour productivity, with select regions even surpassing 80.000 EUR. In contrast, Slovenian regions demonstrate lower labour productivity compared to both EU and Alpine averages. Urban regions generally exhibit the highest values, closely resembling the Alpine average, whereas rural and intermediate regions show lower figures, averaging around 64.000 EUR.

Average number of usual weekly hours of work in main job

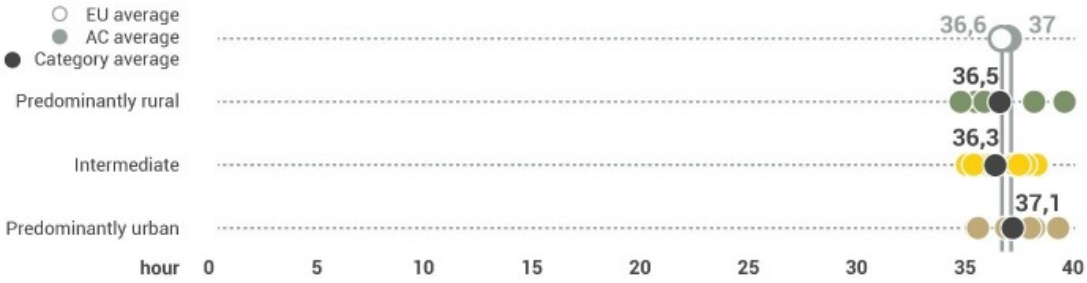


FIGURE 4.3
The average amount of hours people work per week in their main job (NUTS 2). (Source: EUROSTAT, LFST_R_LFE2EHOUR, 2022)

Indicator explanation: The indicator represents the average number of hours that employed individuals usually work per week in their main job in the Alpine regions (NUTS 2). Data was available for all Alpine regions except for Liechtenstein and Monaco, and it pertains to 2022.

The indicator provides insights into the work-life balance within each Alpine NUTS 2 region. Generally, a lower number of working hours indicates a better work-life balance, as it allows residents more time for leisure activities. Average weekly working hours vary across Alpine countries and regions. In regions where the value is below 37 hours, individuals work fewer hours than the EU average. Conversely, in regions where employees work more than 37 hours per week on average, they exceed the EU average. The average indicator value for Alpine countries and regions (36,6) is lower than the EU average, signifying that, on average, employed individuals in the Alpine regions work 0,4 hours fewer per week.

In Alpine regions within Austria, Switzerland, and Germany, employers tend to work fewer hours per week; aligning with both EU and Alpine averages. Notably, German and Swiss regions report the lowest weekly working hours, approximately 35 hours. In contrast, employees in Slovenia, France, and Italy work more on average compared to both EU and Alpine averages, with Slovenia's regions having the highest average (over 39 hours per week).

In terms of average working hours based on urban-rural typology (urban, rural, intermediate regions), urban areas record the highest average, exceeding 37 hours. The averages for rural and intermediate regions are similar, around 36,5 hours.

4.4.2 Life maintenance

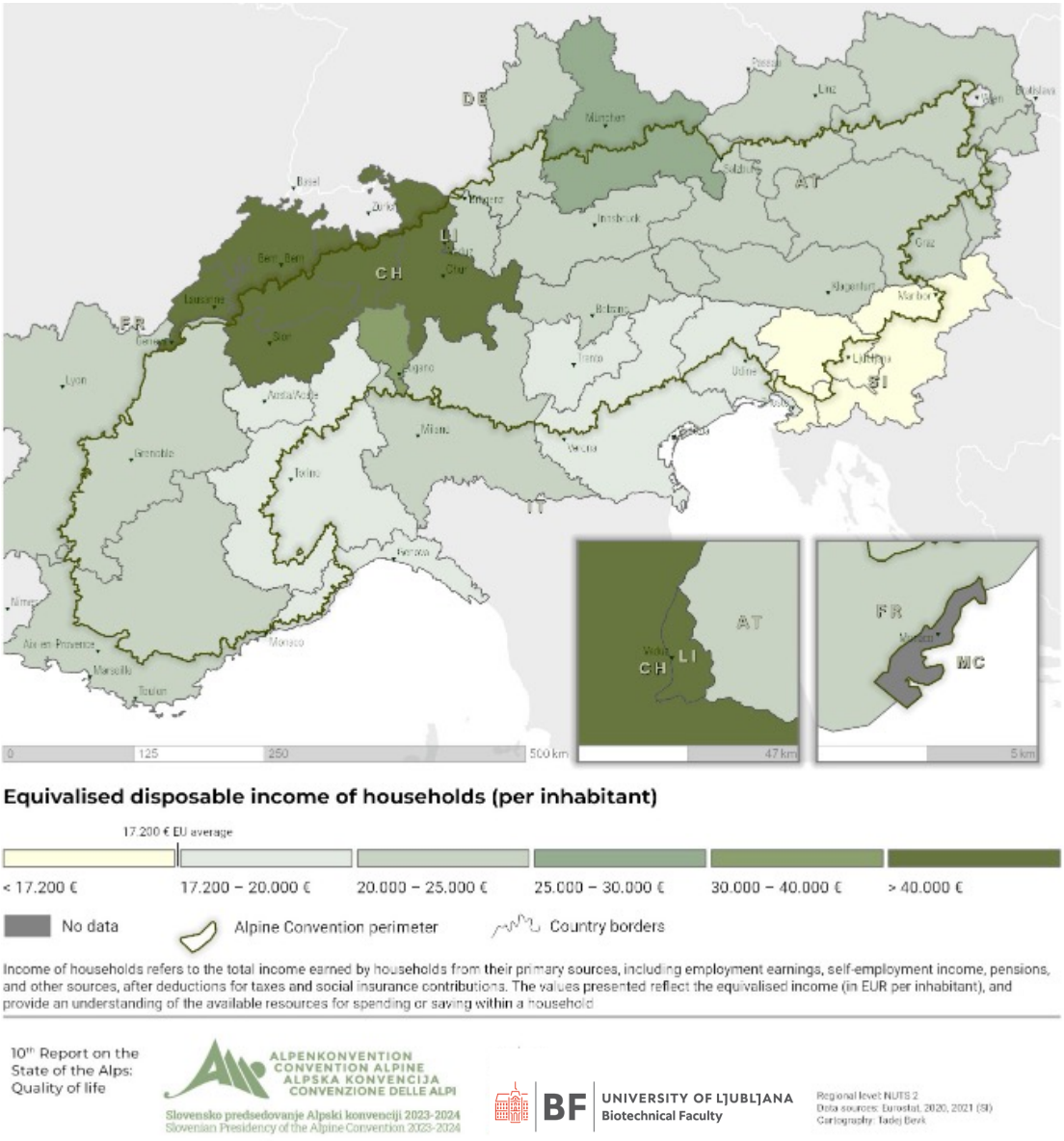
Equivalised disposable income of households (EUR per inhabitant)

Indicator explanation: Income of households refers to the total income earned by households from their primary sources, including employment earnings, self-employment income, pensions, and other sources, after deductions for taxes and social insurance contributions. The values presented reflect the equivalised income (in EUR per inhabitant), and provide an understanding of the available resources for spending or saving within a household. Disposable household income provides insights into the financial resources available to households and reflects their overall economic situation. The data for this indicator pertains to the latest available year for Alpine NUTS 2 regions.

Specifically, data for Austria, Germany, Italy, Slovenia, France, and Liechtenstein relates to 2020, while regional data for Switzerland is from 2017, with national data for Switzerland also available for 2020. Data for Monaco was unavailable.

The data for Switzerland (source: Enquête sur le budget des ménages 2015–2017) and Liechtenstein (source: Vermögens und Einkommensverteilung) was sourced from national statistical bases, while data for the other countries was obtained from EUROSTAT (source: NAMA_10R_2HHINC).

Household incomes in the Alpine regions exhibited a range from around 12.000 to more than 50.000 EUR. Notably, in the majority of Alpine regions, household incomes surpass



the European average of 17.200 EUR per capita. In fact, the average of Alpine countries exceeds 29.000 EUR per capita, reflecting a higher income level within these countries. The average of Alpine regions is also higher compared to the EU, nearly 27.000 EUR. Except for Slovenian Alpine regions, all Alpine regions surpass the EU average. This higher income can potentially contribute to an enhanced QoL for residents, offering increased financial resources and opportunities for a higher standard of living.

Regarding urban-rural typology, the highest average value is scored by intermediate regions with the number reaching almost 32.000 EUR. This higher value is a result of high-

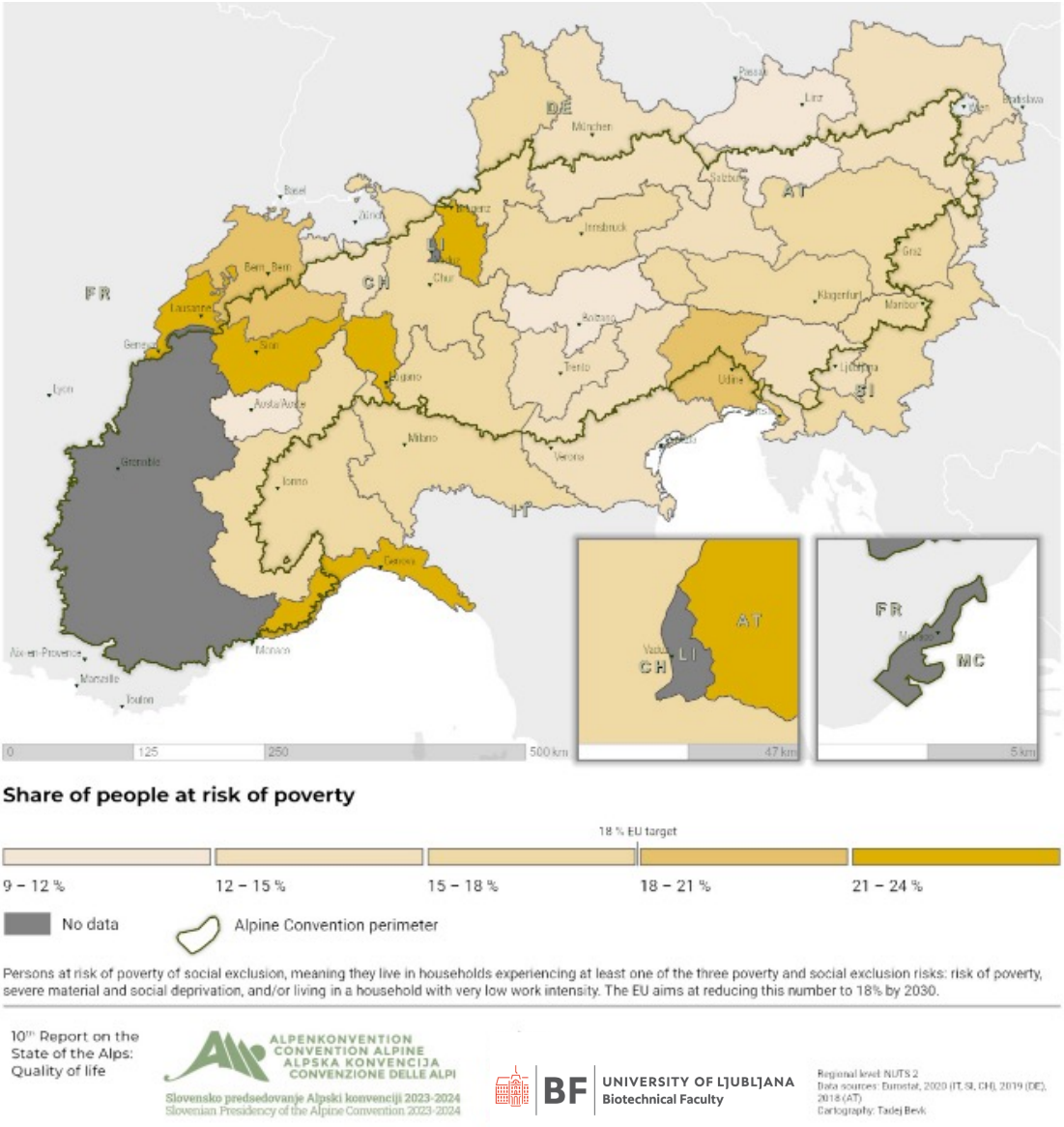
income values for Swiss regions; most of the Swiss region are classified as intermediate. The average value for urban regions is just above 25.000 EUR, while the lowest average value is observed in rural regions, slightly exceeding 22.000 EUR.

Note: Disposable household income values for Switzerland were equalised using the modified OECD equivalence scale, which is the approach also employed by EUROSTAT. This scale assigns weights of 1 for the first adult, 0,5 for the second adult, and 0,3 for each child under 14 years in a household. The equivalent size is derived from the sum of the weights of all members of a household and is used to divide the household's total income. Equivalised income accounts for variations in household size and composition.

The original data for Switzerland and Liechtenstein is in CHF; therefore, the values were converted to EUR using the average exchange rates for CHF and EUR for the year 2017 (1 EUR = 0,9007 CHF) for regional data for Switzerland and for the year 2020 (1 EUR = 0,9342 CHF) for Liechtenstein and the national data for Switzerland.

Share of people at risk of poverty

Indicator explanation: The indicator reflects the percentage of the population in Alpine NUTS 2 regions who are at risk of poverty or social exclusion, and highlights the level of social and financial (in)security. The values presented correspond to the last available year: 2020 for Italy, Slovenia, Liechtenstein and Switzerland; 2019 for Germany and the EU; and 2018 for Austria. There is no available data for France and Monaco.

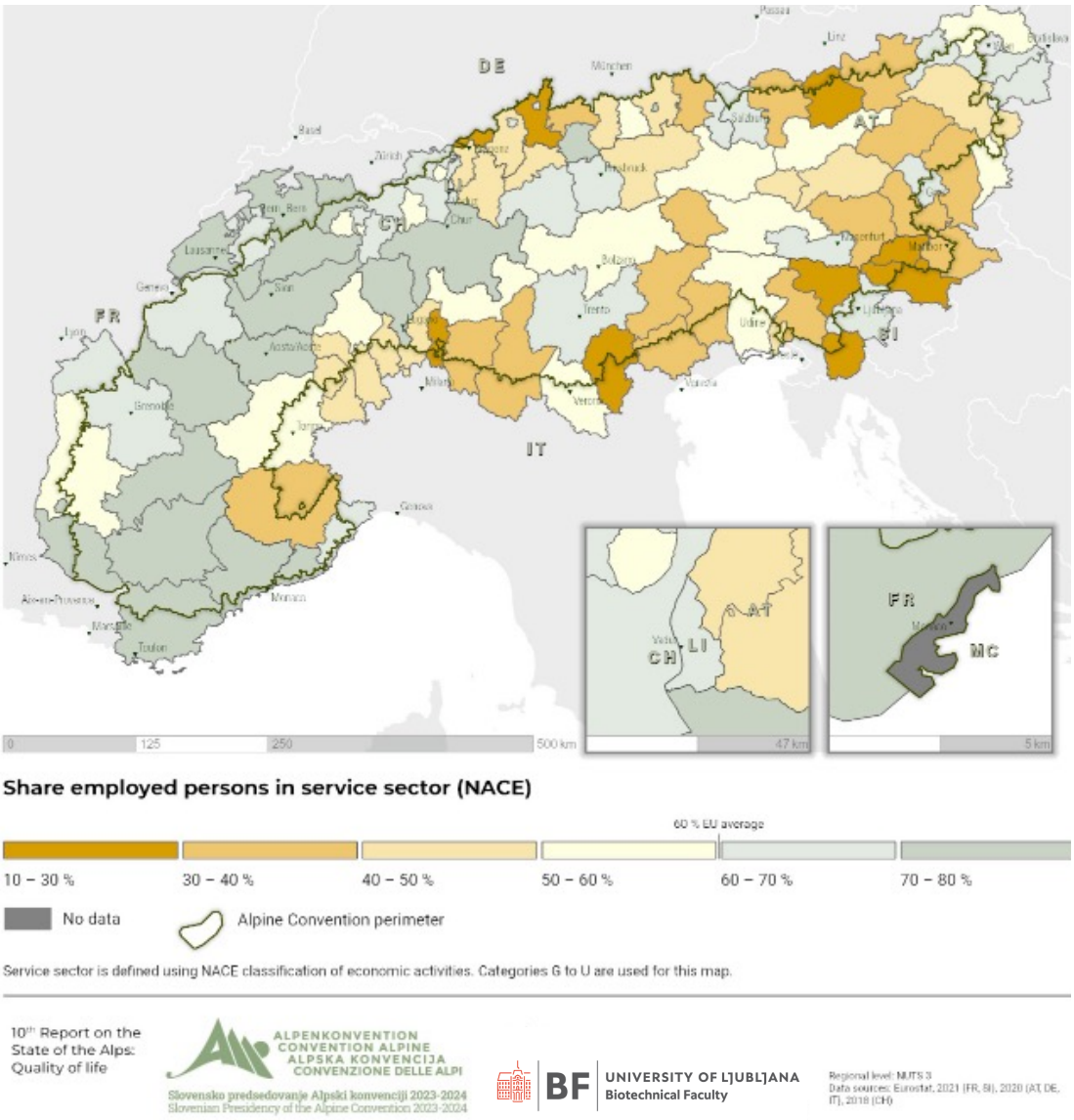


This indicator offers an understanding of the proportion of the population in each region that is at risk of poverty or social exclusion, and emphasizes its negative impact on QoL. It is closely linked to the unemployment rate and long-term unemployment rate indicators, as higher values in these indicators show less favourable employment conditions and increased job insecurity, consequently raising the risk of poverty and diminishing social and financial security. Most Alpine regions exhibit a lower value for this indicator compared to the EU average of 20,8%. The average indicator value for Alpine regions (16,1%) is even lower than the average for Alpine countries (18,6%). This indicates a relatively lower risk of poverty and higher levels of social and financial security in Alpine regions. However, the share recorded varies from 10% to more than 20%, which means that some regions there is a higher risk of poverty. In general, most Swiss Alpine regions report higher shares.

Urban regions report higher average values, above 17%, intermediate regions demonstrate slightly lower average value (16,4%), while rural regions among all Alpine regions, regarding urban-rural typology, report the lowest value (14,9%).

Share of employed persons in service sector (NACE)

Indicator explanation: The indicator share of employment for NACE categories (services sectors from G to U) represents the share of employed individuals working in the services sector in Alpine NUTS 3 regions for the year 2020, and 2021 for Liechtenstein. Sectors G to U correspond to retail and service sectors such as wholesale and retail trade,



accommodation, communication, real estate, administration, education and so on. Data for Monaco is unavailable.

This indicator specifically focuses on the tertiary and quaternary sectors (services), excluding individuals engaged in industrial and agricultural activities. A higher share in these sectors indicates a lower concentration of individuals involved in agriculture and resource-based industries within a specific region. High shares of employed in this sector point towards a service-oriented and knowledge-based society in which a majority of the local economy depends on retail, tourism, public administration, and financial sectors etc. It illustrates how far the society has come in terms of economic transition towards a service-based (or post-industrial) society. A post-industrial society is a social system in which most economic value and development is derived from services rather than goods. Across the Alpine regions, there is variability in the share recorded, with some regions having a share of around 10% while others exceed 80%. The EU average for this indicator is approximately 59%, whereas the average value for the available regions in the Alps is lower, approximately 50%. The Alpine regions have a majority of 40% or more employed in the services, lower percentage areas occur in the Eastern and Southern parts of the Alps. The average of the 8 Alpine countries (considering whole country territories in this case) is higher (61%) and is strongly influenced by the high share of Switzerland which exceeds 77%.

Considering the urban-rural typology, urban and intermediate regions have similar average shares, both slightly exceed 53%, while rural regions have a lower share, around 44%.

4.4.3 Life flourishing

Perceptions about income with regards to comfort of living

FIGURE 4.4 Perception about income for comfort of living (NUTS 1: DE and IT; NUTS 2: AT, CH and FR; NUTS 3: SI). (Source: ESS, round 10, 2020)

Indicator explanation: The indicator reflects the subjective perception of residents in the Alpine regions regarding their household income and its adequacy in relation to their standard of living. It provides insights into how individuals feel about their income and they were asked the question "Which of the descriptions on this card comes closest to how you feel about your household's income nowadays?" The values are presented on the scale from 1 to 4, 1 equates to living comfortably on present income, 2 to coping on present income, 3 notes that they are experiencing difficulty on their present income and 4 suggests that they are finding it very difficult on their present income. Data is available for the year 2020, with data presented at the NUTS 3 level for Slovenia and at the NUTS 2 level for Austria, Germany, and Switzerland. In the case of Italy, data is presented at the NUTS 1 level. There is no data for Liechtenstein or Monaco.

In most Alpine regions, the indicator value falls between 1,5 and 2, indicating that residents generally believe that their income is sufficient to meet their needs and live comfortably. A lower value of the indicator reflects a more positive subjective opinion about income, and suggests that individuals perceive their income as providing a higher QoL. This indicator captures subjective perceptions and may not necessarily align with objective measures of income or living standards. However, it provides insights into how individuals in the Alpine regions assess their financial situations and the impact that the same has on their overall sense of well-being. In some cases, there is noticeable variation in values across regions within the same country. Most regions tend to have lower indicator values compared to the EU average of 1,95, which suggests that residents

in Alpine regions generally possess and express greater satisfaction with their income. However, the differences between Alpine regions and the EU average are not substantial. When considering urban-rural typology, there is no significant difference between regions, as all report average values around 1,6 (in the cases of intermediate and rural regions), and 1,7 (in the case of urban regions).

Note: Due to data availability being at different NUTS levels, the averages for the urban-rural typology (urban/intermediate/rural regions) include data for different NUTS levels.

Satisfaction with main job

FIGURE 4.5 Satisfaction with job (NUTS 1: DE and IT; NUTS 2: AT, CH and FR; NUTS 3: SI). (Source ESS, round 10, 2020)

Indicator explanation: Job satisfaction is a subjective indicator that shows the degree of satisfaction amongst employed individuals in the Alpine regions regarding their main jobs. Survey participants were asked to rate their satisfaction level by answering the question, "How satisfied are you with your main job?" The responses were recorded on a scale from 0 to 10, where 0 signified extremely dissatisfied and 10 signifies extremely satisfied. The data corresponds to the year 2020 and includes information from Alpine NUTS 3 regions in Slovenia, Alpine NUTS 2 regions in Austria, Germany, and Switzerland, and Alpine NUTS 1 regions in Italy. Data for Liechtenstein and Monaco was not available.

However, there is similar indicator for Liechtenstein for 2017. Employed persons rated their satisfaction with their jobs on a scale with descriptive values: very high, high, medium and low or very low satisfaction. More than 60% reported that they were very satisfied with their jobs, whilst more than 20% stated that they were satisfied (data source: Wachstumsmonitor 2020).

Satisfaction with one's job is influenced by various factors, including the opportunities provided by employment and overall working conditions. A higher indicator value shows greater satisfaction with the working environment, which, in turn, contributes to a higher quality of life. In the Alpine regions, the indicator ranges between 6,8 and 8,3, and suggests that employees generally experience a relatively high level of satisfaction with their current employment. While this might indicate that the working conditions and opportunities provided by employers in these regions contribute positively to the overall job satisfaction of employees, we should also note that it is a subjectively measured indicator and that it is possible that the expectations of workers are low to begin with or that social communication norms require people to express higher satisfaction than they honestly hold. More detailed examinations would be useful on this topic. The EU average stands at 7,32. In Slovenia, all Alpine regions, as well as the majority of regions in Switzerland, report higher job satisfaction compared to the EU average. Conversely, residents in German and Austrian regions express slightly lower job satisfaction than the EU average. The regions in Switzerland hold the highest job satisfaction, while the regions in Austria reports the lowest level of job satisfaction.

Regarding urban-rural typology, all regions reported an average satisfaction of between 7,3 and 7,7: the highest average value was observed in intermediate regions (just below 7,7), while average satisfaction in rural regions was just below 7,5 and in urban regions the values slightly surpassed 7,3.

Note: Due to data availability at different NUTS levels, the averages for the urban-rural typology (urban/intermediate/rural regions) include data for different NUTS levels.

4.5 Social relations

The quality and nature of social relationships in the Alps is mostly conditioned by the nature of the territory. As Wilson, Schermer and Stotten (2018) claim, the remoteness and need for self-sufficient livelihoods can cause remote mountain communities to be more closed, inward looking, and conservative. Furthermore, due to the fact that the Alps have become a "contact zone" where flows of people come and go for reasons such as migration, tourism, work and others, the village remains as a "contested zone" (Boscoboinik, Cretton, & Offenhenden, 2023). Several social changes have been depicted by a number of authors, including: that people are not so close anymore, do not talk to each other in the manner of close-nit society, and are more selfish and profit-maximisation oriented (Wilson, Schermer and Stotten, 2018). In addition, multiple successive waves of migration (amenity migrants, foreigners, refuges) have disturbed the closeness of Alpine communities whilst new relationships and trust between local residents and newcomers need to be established (Gretter *et al.*, 2017). Owners of part-time residences are also a specific and possibly conflicting group: on one side they maintain the buildings, but on the other side this phenomenon can cause "ghost hamlets" since such "residents" might not get involved with the community life (Löffler *et al.*, 2015).

Due to these changes in social life, we have depicted three topics to describe under the element "social relations", namely: 1) solidarity, intragenerational and inclusive care, 2) community activities and events, and 3) safety.

TABLE 4.6 Social relations indicators, compared to EU average and by urban-rural typology. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Indicator	EU	AC	Urban	Inter.	Rural
ENABLERS					
Average population-weighted distance to community centre	/	5,4 km	3,6 km	4,9 km	7,0 km
Average population-weighted distance to police station	/	3,3 km	2,2 km	3,1 km	4,1 km
Average population-weighted distance to fire station	/	2,7 km	3,3 km	2,9 km	2,3 km
LIFE MAINTENANCE					
Aging index	1,40	1,63	1,75	1,62	1,59
Share of young people neither in employment nor in education and training	11,7%	9,4%	11,2%	9,1%	8,2%
Percentage of people who have friends or relatives to rely on in case of need	91%	91%	91%	92%	90%
LIFE FLOURISHING					
Feeling of safety in local area after dark (1 – very safe, 4 – very unsafe)	2,04	1,76	1,85	1,63	1,75

In the enablers pillar, we present the average distance to a community centre as a potential location in which people can meet and converse. Regarding safety, accessibility to the police and fire stations was considered. The maps show that community centres are mainly not easily accessible in eastern regions, but that could also be the consequence of incomplete data, as only OSM points labelled as community centres were used in the analysis, while many other places could also play this role in reality. Both fire and police stations are generally well accessible.

Life maintenance indicator includes share of young people neither in employment nor in education and training (NEETs), where high shares can show the youth as socially vulnerable group of the Alps. The situation is better on average than it is in the EU, with under 10% of NEETs. The situation is slightly worse in urban regions, and ranges up to 11%, while intermediate and rural regions are below the AC average. In addition, the percentage of people who have friends or relatives to rely on in case of need is shown, which is close to the EU average (91%).

Life flourishing is shown via reference to satisfaction with social relations in one's life (and feelings of safety in the (given) area. According to the ESS survey, people in the Alps feel safe.

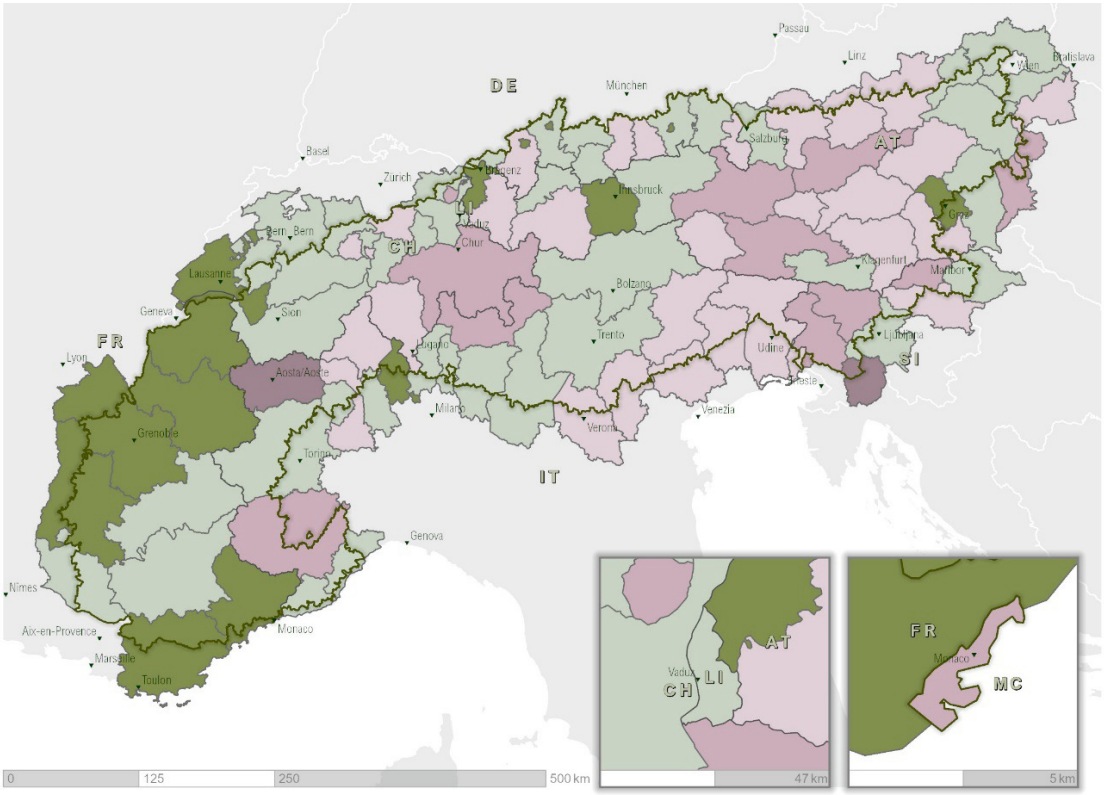
4.5.1 Enablers

Average population-weighted distance to community centre

Indicator explanation: This indicator quantifies the average population-weighted distance, measured in metres, to community centres within Alpine NUTS 3 regions. The data is derived through GIS analysis, and utilizes information from Open Street Map (OSM), and is up to date for 2023.

Community centres serve as hubs for local communities, fostering social connections and hosting a range of activities for residents. When the average distance to a community centre is shorter, it enhances the potential for stronger social bonds within the community and reduces the need for car-dependent commuting to participate in activities and social meetings. If the distance is shorter than 2,5 kilometres, it is considered to be walkable.

Across the Alpine regions, the average distance to community centres is just under 5,5 kilometres. However, this distance varies vary significantly; from less than one kilometre to over 10 kilometres, with two exceptional cases exceeding 15 kilometres. The Italian region of Aosta Valley, classified as an intermediate region, reports an average distance of more than 27 kilometres, while one region in Slovenia (Primorsko-notranjska region) which is classified as rural, reports an average distance of more than 15,5 kilometres.



Average population-weighted distance to community centres

< 2,5 km | 2,5 – 5 km | 5 – 8 km | 8 – 15 km | > 15 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as community centers. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 5 km are considered well accessible for services that are not generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

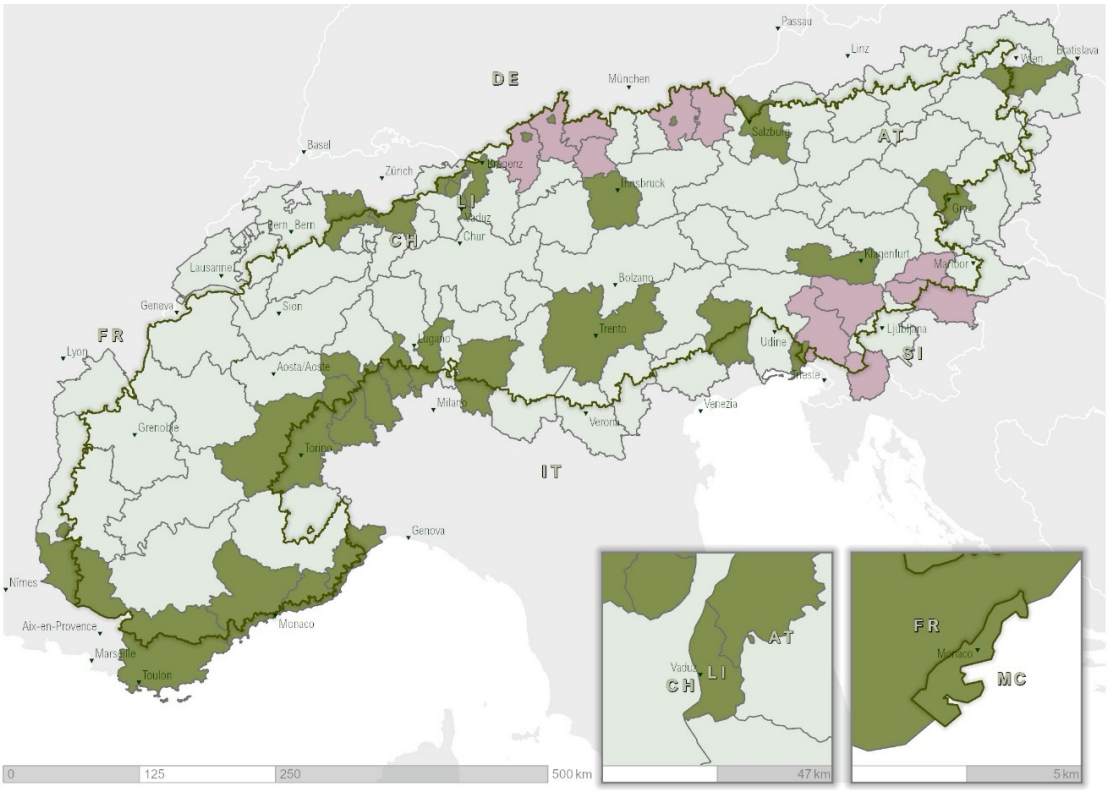
Among the Alpine regions, urban regions report the shortest average distance to community centres, with an average value just above 3,5 kilometres. This suggests that urbanised areas tend to have a higher concentration of community centres, and that the structure of settlements is less dispersed and more concentrated. In contrast, rural regions have the longest average distance, nearly 7 kilometres, which indicates that residents in these areas, on average, require more time to reach their nearest community centre. Intermediate regions fall in between, with an average distance slightly below 5 kilometres.

Note: For this indicator, no EU average has been calculated.

Average population-weighted distance to a police station

Indicator explanation: This indicator reflects the average population-weighted distance to police stations, measured in metres, across Alpine NUTS 3 regions. The data is derived from GIS analysis using information from Open Street Map (OSM) and is up to date for the year 2023.

Proximity to a police station is crucial when rapid crime and safety interventions are required. The closer the police station, the quicker the response time for such interventions. Across the Alpine regions, the average distance to the nearest police station is just under 3,3 kilometres. This proximity contributes to the generally high sense of safety and lower crime rates observed in the Alpine area. However, the specific average distance value



Average population weighted distance to a police station

< 2,5 km | 2,5 - 5 km | > 5 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as police station. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 5 km are considered well accessible for services that are not generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

varies from region to region, ranging from less than 1,5 kilometres to over 6 kilometres. In general, the longest average distances are observed in Slovenian and German regions.

In terms of urban-rural typology, urban regions report the shortest average distance to police stations, measuring just over 2,2 kilometres, with urban areas tending to have a

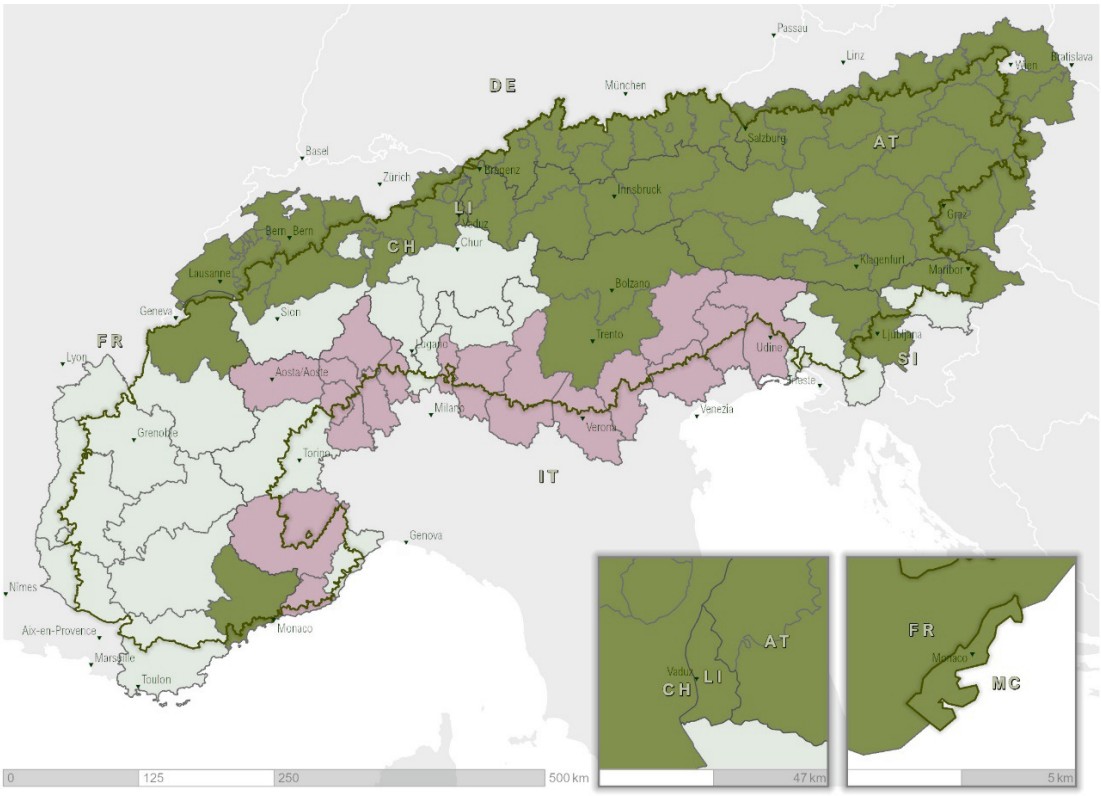
higher concentration of police stations. Conversely, rural regions exhibit the highest average distance, exceeding 4,1 kilometres, as there are generally fewer police stations in more remote areas. Intermediate regions maintain an average distance of 3,1 kilometres to their nearest police stations.

Note: For this indicator, no EU average has been calculated.

Average population-weighted distance to a fire station

Indicator explanation: This indicator illustrates the average population-weighted distance to fire stations in metres across Alpine NUTS 3 regions. The data is derived from GIS analysis using information from Open Street Map (OSM) and is current as of 2023.

Fire stations play a critical role in ensuring safety, responding to fires, and safeguarding both urban and wilderness areas. Their proximity is vital for timely emergency responses, whether they involve protecting residents and the built environment from fires or preserving ecosystems and natural surroundings in more remote areas. Through these actions they mitigate threats to residents, air quality, and built areas.



Average population weighted distance to a fire station

< 2,5 km | 2,5 – 5 km | > 5 km

Alpine Convention perimeter

Distance was calculated using road network and all points from OpenStreetMap dataset labeled as fire station. Averages from NUTS regions were calculated by weighting average distance in a grid cell with population in the same cell. Distances up to 5 km are considered well accessible for services that are not generally needed on daily basis (Barton and Tsourou, 2000). Note that the map does not include information on vertical differences - which could be a significant accessibility factor in the Alps.

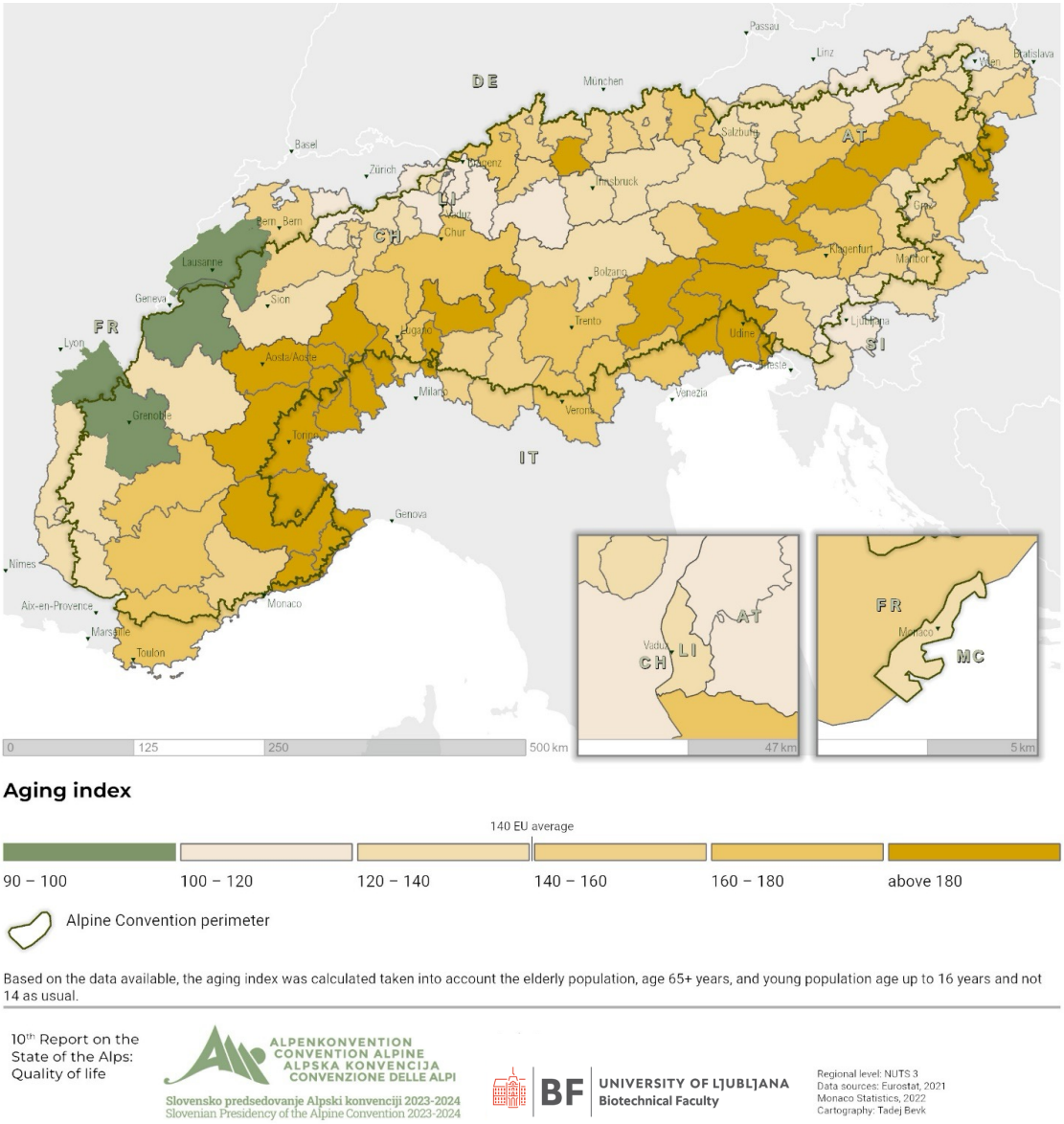
Across the Alpine regions, the average distance to fire stations is slightly over 2,7 kilometres. However, this average distance varies across the Alpine perimeter, with some regions reporting distances of less than 900 meters and others exceeding 7,5 kilometres. The longest average distances are generally observed in Southern regions of the Alpine perimeter, especially in Italian and certain French regions.

In terms of urban-rural typology, rural regions typically have the shortest average distance to fire stations, indicating that even smaller settlements have relatively accessible fire stations. The average distance in these regions is slightly above 2,3 kilometres, and reflects a favourable situation compared to the Alpine average. Conversely, urban regions report the longest average distance, exceeding 3,3 kilometres. Intermediate regions fall in between, with an average distance of just under 2,9 kilometres.

Note: For this indicator, no EU average has been calculated

4.5.2 Life maintenance

Aging index



Aging index

140 EU average

90 – 100	100 – 120	120 – 140	140 – 160	160 – 180	above 180

Alpine Convention perimeter

Based on the data available, the aging index was calculated taken into account the elderly population, age 65+ years, and young population age up to 16 years and not 14 as usual.

ALPENKONVENTION
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CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

Regional level: NUTS 3
Data sources: Eurostat, 2021
Monaco Statistics, 2022
Cartography: Tadej Bevk

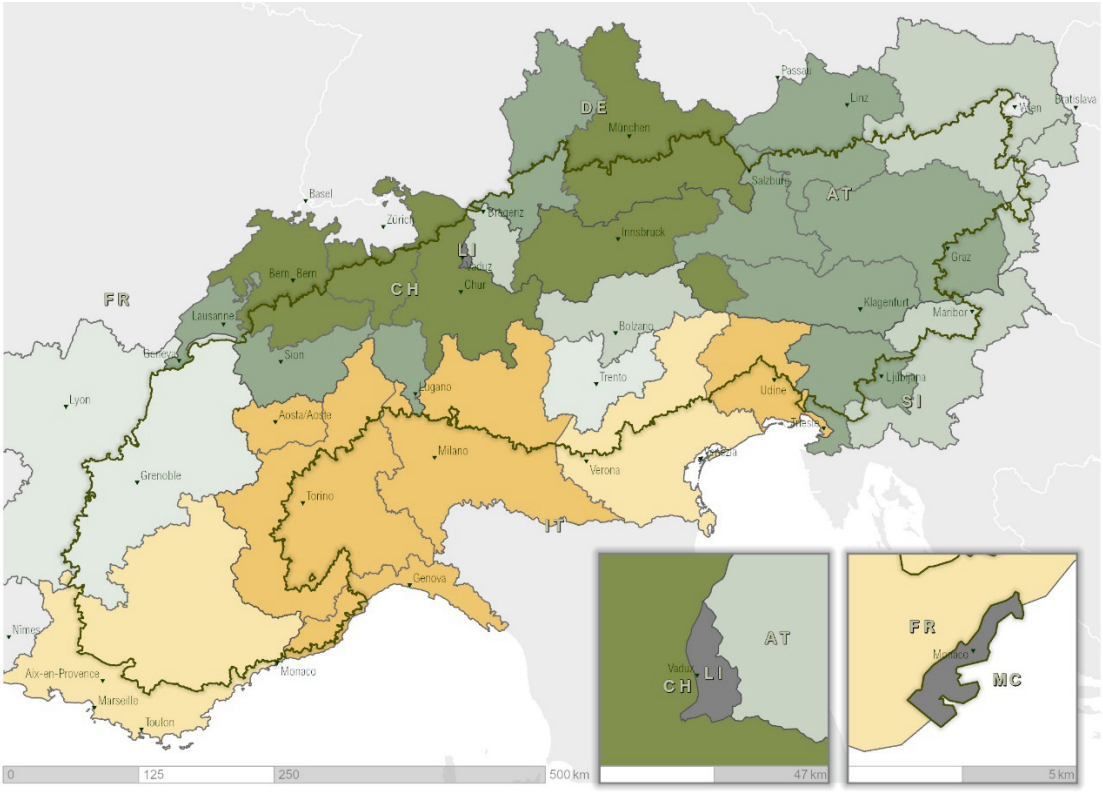
Indicator explanation: This indicator signifies the ratio of the population aged 65 years or over to the population aged under 15. The data corresponds to the year 2022 and is accessible for Alpine NUTS 3 regions (source: DEMO_R_PJANAGGR3; Monaco: Monaco Statistics).

Note: For Monaco, based on the data available, the ageing index was calculated considering the elderly population (65+ years) and the young population (up to 16 years), deviating from the usual age range (under 15 years).

The aging index serves as an illustration of the demographic situation: values surpassing 100 signify a less favourable demographic scenario, indicating a trend toward an aging population with more individuals aged over 65 than those under 15. Across Alpine regions, values vary from 90 to over 180. Notably, only two regions have an indicator value below 100 (Haute Savoie) or equal to 100 (Isère). Generally, the Alps are facing with the trend of an aging population. Alpine regions, on the whole, present higher indicator values than the EU average of 140, signifying a demographically less favourable situation. The average for Alpine regions stands at 160, with notably higher index values (exceeding 180) observed in Italian and certain Austrian regions.

In terms of the urban-rural typology, urban regions exhibit the highest average value, surpassing 170, whereas rural regions show the lowest average value, just under 160. Intermediate regions fall in between, with an average of more than 160.

Share of young people who are neither in employment nor in education or training



Share of young people neither in education or employment

11,5 % EU average

4,5 – 6,5 % | 6,5 – 8 % | 8 – 10 % | 10 – 11,5 % | 11,5 – 13,5 % | 13,5 – 15,5 %

No data

Alpine Convention perimeter

Young people (aged 15 - 29) neither in employment nor in education and training (NEET). The European union set a target stipulating that the share of young people neither in employment nor in education or training should be less than 9% by 2030.

Indicator explanation: This indicator shows the share of young individuals aged 15 to 29 who are currently not enrolled in any formal or non-formal education programs and are also not employed. The data is accessible for NUTS 2 regions and pertains to 2022, with the exception of Switzerland, where the data is from 2020. Data for Liechtenstein and Monaco was not available.

This indicator reflects the opportunities available to young people with regards to education or employment, after they have completed their compulsory education. Higher shares indicate that a larger share of young individuals is neither pursuing education nor employed. Conversely, lower shares suggest a more favourable situation, where young people have access to training (such as studying) or employment opportunities after completing secondary or tertiary education.

The EU average for this indicator is slightly below 12%, while the average for the 8 Alpine countries is approximately 1% lower, at 10,6%. The average for Alpine regions is even lower, standing at just below 9,5%. This suggests that a higher proportion of young people in Alpine regions is engaged in training or employment compared to the broader EU context. In general, the share of young individuals not engaged in education or employment across most Alpine regions is below 10%. However, there are exceptions in Alpine regions in two countries, France and Italy, where the shares in some regions exceed 15%. These are the regions with big cities like Milan, Turin, Verona, and Venice. The values for this indicator vary from around 5% to over 15% across the Alpine region as a whole.

When considering urban-rural typology, urban regions report the highest share, exceeding 11%, while intermediate regions have a lower share of around 9%. Rural regions have an even lower share, slightly above 8%.

Percentage of people who have friends and relatives to rely on in case of need

Indicator explanation: The percentage of people who have friends and relatives to rely on indicates highlights the proportion of individuals who responded affirmatively to the question: "If you were in trouble, do you have relatives or friends you can count on to help you whenever you need them, or not?" This data is based on responses from 2018 and provides insights into the quality of social networks within the Alpine NUTS 2 regions across Austria, France, Germany, Italy, Slovenia, and Switzerland. Data for Liechtenstein and Monaco was not available.

This indicator provides insights into the strength of social support networks in Alpine regions and countries. A higher indicator value indicates a stronger sense of community and greater social safety, particularly in times of trouble, both material and non-material. Across all Alpine regions, there is a high percentage of individuals who reported having friends or relatives to rely on, with values consistently exceeding 85%, and in some regions, even surpassing 95%. Consequently, the average for Alpine countries is relatively high at 91,6%. Comparing the average for Alpine regions, it is almost the same as the EU average of 91%. Regions in Slovenia, France, and the majority of Swiss regions all exceed this average. Furthermore, most Alpine regions also surpass the EU average.

When considering urban-rural typology, intermediate regions exhibit the highest values, with an average of 92,1%. Predominantly urban and rural regions report similar average values, slightly above 90%.

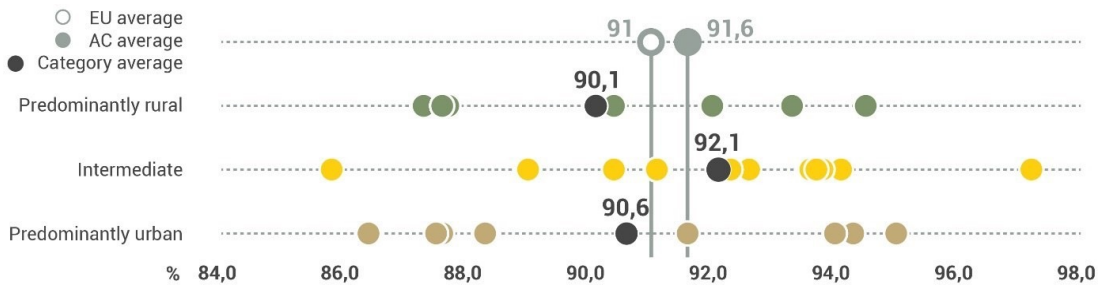


FIGURE 4.6 Percentage of people who have friends and relatives to rely on in case of need (NUTS 2). (Source: OECD, 2018)

Note: The data for this indicator was sourced from the OECD. The EU average was calculated using the available national data for EU countries that report to the OECD. However, not all EU countries provide data to the OECD. As a result, the EU average does not include data from the following countries: Bulgaria, Croatia, Cyprus, Malta, and Romania.

4.5.3 Life flourishing

Feeling of safety in local area after dark

Indicator explanation: This indicator provides insights into perceived safety levels across various Alpine regions. Respondents were asked: "How safe do you – or would you – feel walking alone in this area after dark?" and were asked to assess their senses of safety with response options ranging from 1, indicating "very safe," to 4, indicating "very unsafe." Data was accessible at different NUTS levels: for Italy and Germany at the NUTS 1 level, for Austria, France, and Switzerland at the NUTS 3 level, and for Slovenia at the NUTS 3 level as well. This data was gathered during the European Social Survey (ESS) round 10, which focused on Democracy and Digital Social Contacts and pertains to 2020. Data for Liechtenstein and Monaco was not available.

FIGURE 4.7 Feeling of safety in the area (NUTS 1: DE and IT; NUTS 2: AT, CH and FR; NUTS 3: SI). (Source: ESS, round 10, 2020)

However, there is a similar indicator for Liechtenstein that refers to 2019, when residents assessed their feelings of safety. 97% reported that they felt pretty safe, indicating that the feeling of safety in Liechtenstein is rather high, which correlates with the feeling of safety in other Alpine regions (source: Lageeeurteilung: Die Sicherheit in Liechtenstein). This indicator is a subjective measure that captures how safe residents perceive their region to be. This perception of safety is closely linked to the prevalence of low crime rates. Lower indicator values indicate that people generally feel safer, while higher values signify a stronger sense of insecurity. Across all Alpine regions, the average scores for perceived safety were relatively low, suggesting that people predominantly feel "very safe" or "safe" when walking alone in the dark. The average scores mostly ranged between 1,5 and 2. Regions in Italy and Germany reported the highest average values, slightly surpassing 2. However, in other Alpine regions, these values generally fell below 2, reflecting a higher level of perceived safety. When comparing Alpine regions to the EU average of 2,04, Alpine regions, on average, reported a higher feeling of safety. Consequently, the Alpine average is lower than the EU average, around 1,8. Some regions in Switzerland and Slovenia reported even lower values compared to the Alpine average, reflecting strong feelings of safety amongst their residents.

Regarding urban-rural typology, the strongest feeling of safety was reported in intermediate regions (values were just above 1,6), while rural and urban regions reported values of around 1,8.

Note: Due to data availability at different NUTS levels, the averages for the urban-rural typology (urban/intermediate/rural regions) include data for different NUTS levels.

4.6 Governance

Governance in the Alps as measure by the OECD is traditionally the worst evaluated element of quality of life, but highly dependent on the national context. Although the area has a long-standing tradition of co-operation networks and joint institutions, such as EUSALP, the Alpine Convention, and the Interreg Alpine Space (Del Biaggio, 2015; Teston and Bramanti, 2018), the local population is not satisfied with policy and decision making. With regards to governance we describe three elements: 1) public policies and legislative processes, 2) enabling a prosperous and sustainable future and 3) inclusion and participation. Within this selection the report covers all major aspect of the (territorial) governance as depicted by Van Well and Schmit (2015) in their study of the Alpine area. Altogether we report upon 4 indicators.

The European quality of government index is a joint indicator that evaluates multiple aspects of governance relative to the EU average (marked as 0). The data shows that the government in AC deviates to the positive pole of this index as it exhibits only positive values. Under life maintenance we are interested in how many voters turn out for national elections as registered by the OECD. The percentage of the population who turn out to vote is highest in urban and rural areas. As life flourishing indicators we show satisfaction with democracy in country (ESS). People are neither very satisfied nor dissatisfied with their governments, with average score in the middle of the rating scales. The situation is a bit more on the positive side in the intermediate regions, and more towards the negative side in rural regions.

TABLE 4.7 Governance relationships indicators, compared to EU average and by urban-rural typology. Green indicator means the AC is overperforming the EU average and red means it is underperforming. Colour coding only applies to EU-AC comparison, and does not suggest that the indicator is in a good state – see individual indicator descriptions below for more detail.

Indicator	EU	AC	Urban	Inter.	Rural
ENABLERS					
European Quality of Government index	**0**	0,34	0,19	0,23	0,69
Adaptive capacity to climate change (0 – very low, 2 – very high)	**1,41**	1,52	1,45	1,52	1,54
LIFE MAINTENANCE					
Voter turnout on national elections	**/**	**69,3%**	73,9%	62,9%	72,8%
LIFE FLOURISHING					
Satisfaction with democracy in country (0 – extremely dissatisfied, 10 – extremely satisfied)	**5,25**	5,51	5,14	6,37	1,75

4.6.1 Enablers

European Quality of Government Index

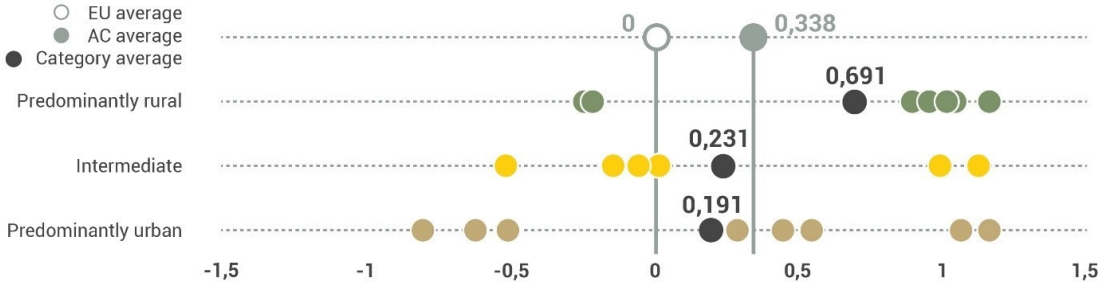
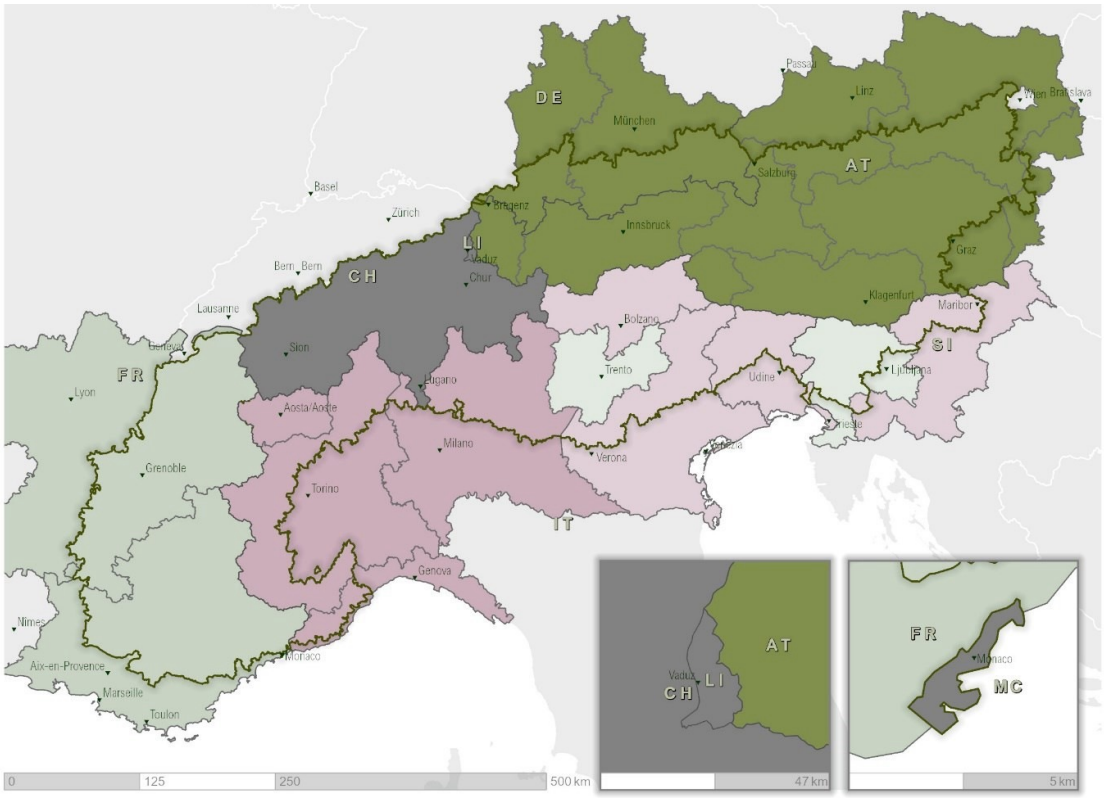


FIGURE 4.8 European Quality of Government Index (NUTS 2). (Source: EC, 2021)

Indicator explanation: The Quality of Government Index reflects average citizens' perceptions and experiences regarding corruption, as well as the quality and impartiality of three vital public services: health, education, and policy making in their respective

NUTS 2 regions. This data pertains to 2021 and does not include information for Switzerland, Monaco, or Liechtenstein.



European Quality of Government Index

0 EU average

-0,8 – -0,4 | -0,4 – 0 | 0 – 0,4 | 0,4 – 0,8 | 0,8 – 1,2

No data | Alpine Convention perimeter | Country borders

The European Quality of Government Index (EQI) captures average citizens' perceptions and experiences with corruption, quality and impartiality of three essential public services – health, education and policing - in their region of residence.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION CONVENTION ALPINE ALPSKA KONVENCIJA CONVENZIONE DELLE ALPI

Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

BF UNIVERSITY OF LJUBLJANA Biotechnical Faculty

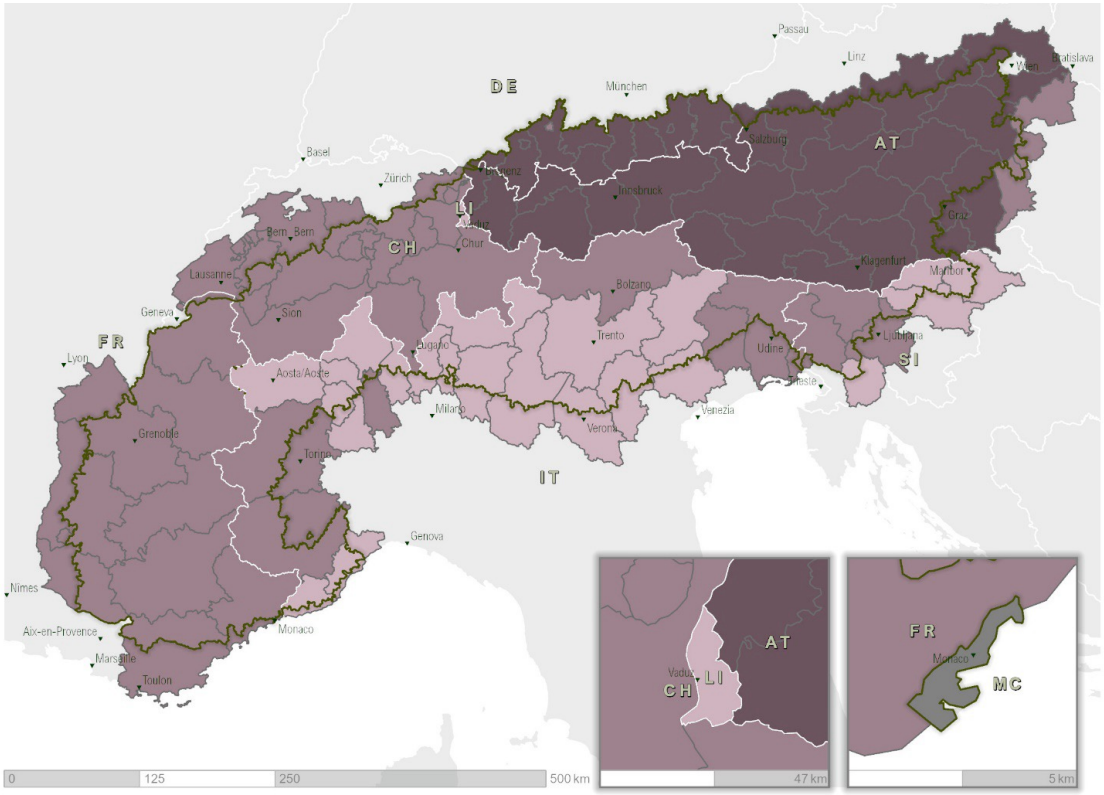
Regional level: NUTS 2
Data sources: European Commission, 2021
Cartography: Tadej Bevk

The indicator values represent the deviation from the EU average, which is determined as 0. Regions with positive values indicate possession of better Quality of Government Index, while regions with negative values reflect a lower Quality of Government Index. Within the Alpine regions, these indicator values range from -0,8 to 1,2, with most Alpine regions reporting positive values. The highest values were observed in German and Austrian regions, while conversely, the majority of Italian regions exhibit negative indicator values. The average value for the countries which share the alpine area is approximately 0,35, with most Alpine regions surpassing this value, indicating generally better perceptions of the quality of government across the Alps. Considering the average of Alpine regions, it is higher at 0,38. However, Italian and Slovene regions show lower values than both Alpine averages.

Regarding urban-rural typology, rural regions tended to have higher average indicator values, nearing 0,7, whereas intermediate regions scored slightly above 0,2, and urban regions had values slightly below 0,2.

Adaptive Capacity to Climate Change

Indicator explanation: Adaptive capacity enhances or counteracts climate change impacts and thus leads to the reduction of a region's overall vulnerability to climate change. This indicator includes social capacity, technological capacity, infrastructure capacity, economic capacity, and institutional capacity. It is important to note, that adaptive capacity shows the possibilities of responding to climate change – appropriate policies and actions still need to be taken to utilise these opportunities.



Adaptive capacity to climate change

Very low capacity | Low capacity | Medium capacity | High capacity | Very high capacity

No data

Alpine Convention perimeter

Adaptive capacity enhances or counteracts the climate change impacts and thus leads to the reduction of a region's overall vulnerability to climate change. This indicator includes social capacity, technological capacity, infrastructure capacity, economic capacity, and institutional capacity. Social and institutional adaptive capacity is highly correlated with indicators like gender equality, social capital, national GDP, investment in education, quality of government, national adaptation strategies and risk perception. Hospital resources are mainly related to hospital beds. The innovation factor is highly correlated with infrastructure and technological capacity indicators like research staff, investment in research, number of patents, medical doctors, and local GDP. Adaptive capacity also increases with indicators like employment rate and lack of risk of poverty. It is important to note, that adaptive capacity shows the possibility of responding to climate change – appropriate policies and actions still need to be taken to utilise this opportunities.

10th Report on the State of the Alps: Quality of life

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

BF UNIVERSITY OF LJUBLJANA
Biotechnical Faculty

Regional level: NUTS 3
Data source: ESPON. 2022. Updating and Integrating CLIMATE Datasets and Maps. Final report.
Cartography: Tadej Bevk

4.6.2 Life maintenance

Voter turnout in national elections

Indicator explanation: This indicator depicts the ratio between the number of voters who participated in national elections and the total number of individuals with voting rights. The data is accessible at the NUTS 2 regional level and corresponds to various years, as national elections are conducted according to different schedules across Alpine countries. Specifically, data for Germany and Liechtenstein was from 2021, Austria and Switzerland from 2019, Italy and Slovenia from 2018, and France from 2017. Data for Monaco was not available.

Voter turnout reflects public engagement in, and awareness of political affairs. A higher turnout indicates that a larger share of eligible voters has participated in the election process, demonstrating greater public engagement. Conversely, a lower turnout suggests fewer people use their right to vote, often indicating a lack of engagement or awareness of political matters. The voter turnout rates vary considerably across Alpine regions, ranging from 43% to over 80%. Regions in Slovenia and Switzerland tend to have lower turnout rates, falling below 50% or slightly above that mark. In contrast, Alpine regions in France, Germany, Liechtenstein, Italy, and most regions in Austria surpass both the EU and Alpine averages, reporting higher voter turnout rates. This suggests a tendency toward stronger political participation in these regions. As a result, the average value of Alpine regions is almost the same as the EU average. However, the Alpine countries average turnout rate of 68,4% is slightly lower than the EU average of 69%.

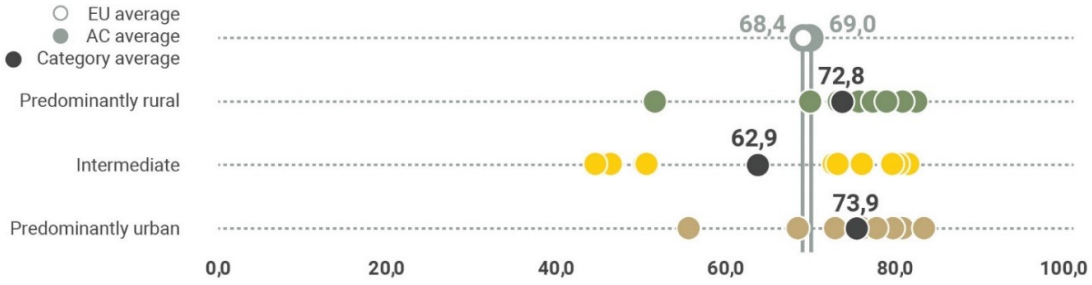


FIGURE 4.9 Voter turnout in national elections (NUTS 2). (Source: OECD, 2021 for DE and LI; 2019 for AT and CH; 2018 for IT and SI; 2017 for FR)

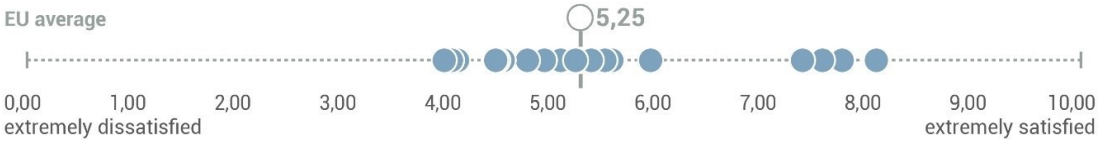
When considering the urban-rural typology, higher turnout rates are generally observed in both urban and rural regions, with an average rate of 73,8% and 72,9% respectively. In contrast, intermediate regions exhibit a lower average turnout rate, near 63%.

Note: The data for this indicator is sourced from the OECD. Therefore, the EU average is calculated using the available national data for EU countries that report to the OECD. However, not all EU countries provide data to the OECD. As a result, the EU average does not include data from the following countries: Bulgaria, Croatia, Cyprus, Malta, and Romania.

4.6.3 Life flourishing

FIGURE 4.10 Satisfaction with democracy in country (NUTS 1: DE and IT; NUTS 2: AT, CH and FR; NUTS 3: SI). (Source: ESS, round 10, 2020)

Satisfaction with democracy in country



Indicator explanation: This indicator measures satisfaction with democracy, and is based on responses to the question, "How satisfied are you with the way democracy works in your country?" Respondents provided ratings on a scale from 0 (extremely dissatisfied) to 10 (extremely satisfied). The data was collected during the European Social Survey (ESS) round 10, focused on Democracy and Digital Social Contacts, and pertains to 2020. This data is available at various NUTS levels: NUTS 1 for Germany and Italy, NUTS 2 for France, Switzerland, and Austria, and NUTS 3 for Slovenia. There was no available data for Liechtenstein or Monaco.

However, there is a similar indicator for Liechtenstein from 2019. Residents were asked the question “How satisfied are you generally with the functioning of democracy in Liechtenstein?”. They answered on a descriptive scale: very dissatisfied, fairly dissatisfied, fairly satisfied, and very satisfied. 53% of respondents stated that they were be fairly satisfied, while another 18% reported to be very satisfied, indicating that satisfaction with democracy in Liechtenstein is rather high, higher in fact than the Alpine average and similar to the satisfaction with democracy level recorded in Switzerland.

Satisfaction with democracy reflects how people perceive the effectiveness and functioning of democracy in their country. A higher average score suggests greater satisfaction with the state of democracy, while lower values indicate dissatisfaction and a perception of there being an inadequate democracy. Across Alpine regions, reported values ranged from slightly below 4 to well above 8. However, due to the very low values in certain Alpine regions, the overall Alpine average satisfaction score (4,92) was lower than the EU average of 5,25. Specifically, lower levels of satisfaction were reported in Slovenian Alpine regions, where scores were below 5; below both the Alpine and EU averages. Conversely, Swiss Alpine regions exceeded both the Alpine and EU averages, with scores surpassing 7. The values in general show a similar pattern to the Quality of Government indicator above, thus corroborating the results. Both values tend to rotate around the middle, without any significant outliers.

Considering urban-rural typology, the highest average values was scored in intermediate regions, surpassing 6, while the lowest satisfaction was reported in rural regions, slightly below 5. The satisfaction in intermediate regions fell in between with a value of just above 5.

Note: Due to data availability at different NUTS levels, the averages for urban-rural typology included data for different NUTS levels.

5 ANALYSIS OF THE SURVEY'S RESULTS – QUALITY OF LIFE AS PERCEIVED BY THE ALPINE POPULATION

5.1 Basic information about the respondents

The survey was conducted in the summer of 2023. In total, a sample of 3.000 respondents includes participants from Alpine regions in all Alpine countries, including Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia, and Switzerland. Most of the responses were collected online, with additional responses coming from the field survey in Austria.

5.1.1 Gender and age

Among the respondents 54% were women. Responses were collected from individuals across all age categories above 18, with the highest share being from within the age range of 26 and 65 years old (n = 3.000). Specifically, 20,3% were aged 26 to 35 years, 21% were between 36 and 45, 22,5% belonged to the 46 to 55 age group, and nearly 19% were in the 56 to 65 age group. Respondents aged 18 to 25, comprised 7,2%. However, when combined with the next age group (26–25), around 27,6% of respondents were young people or early career persons. The elderly, aged 66+ accounted for 10,1%. The least represented group consisted of individuals aged 76 and above. The average age group of the respondents was the category "46 to 55 years". This corresponds to the overall average age of Alpine population which is in the age group 40 to 49 years.

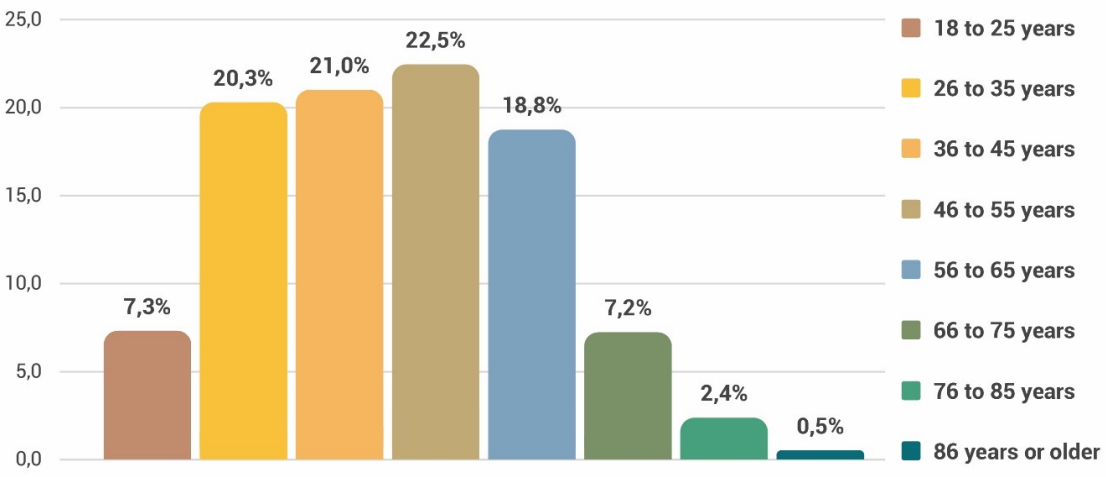


FIGURE 5.1 The age of the respondents (n = 3.000).

5.1.2 Types of living area

Residents were asked as to the types of areas in which they lived and had a choice of five categories: 1) a big city, 2) the suburbs or outskirts of a big city (together presenting as an urban area), 3) a town or a small city (the so-called "intermediate" category), 4) a country village and 5) an isolated hamlet/the countryside with dispersed settlements (the last two presenting the rural area). 2.994 respondents provided an answer, with the majority coming from country villages; 38,2% of the total. Additionally, 33,7% of respondents

came from towns or small cities. The fewest responses were received from individuals residing in large cities; 6,9%. 9,1% of responses came from those living in the suburbs or outskirts of big cities, while 12% came from individuals residing in the countryside with dispersed settlements or isolated hamlets. The largest proportion of responses originated from rural areas, followed by intermediate areas, with the smallest number of responses coming from urban areas. According to the RSA 9 definition of what is urban (towns of population 3.000 and more), the percentage of urban respondents in the survey was 50%, while at the RSA 9 report this percentage accounted for 60%. The difference is explained by the fact that the response area was delineated by the border of NUTS 3 regions while the report considered the perimeter of AC. In addition, the survey did not specifically identify the size of a small town with the population number.

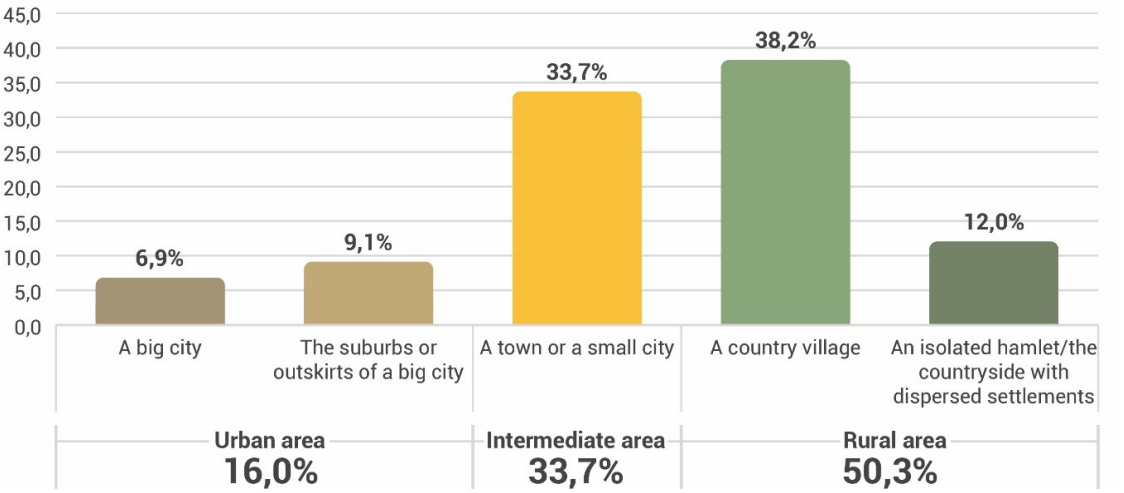


FIGURE 5.2
Type of living area of the respondents (n = 2.994).

5.1.3 Education

A significant majority of respondents possessed tertiary-level qualifications; they had completed university-level education. 2.993 valid answers were provided for this variable and close to a quarter of respondents held master's degrees, while 21,3% had bachelor's degrees. Furthermore, 8,4% of respondents had attained doctoral-level education. The survey participants predominantly belonged to highly educated categories. Among those with secondary education, the largest group included individuals with upper secondary education; 22,0% of respondents. However, there were fewer participants with lower levels of education, with the lowest representation – mirroring the general situation in the society – being those with only primary education or early childhood education (2,4% altogether).

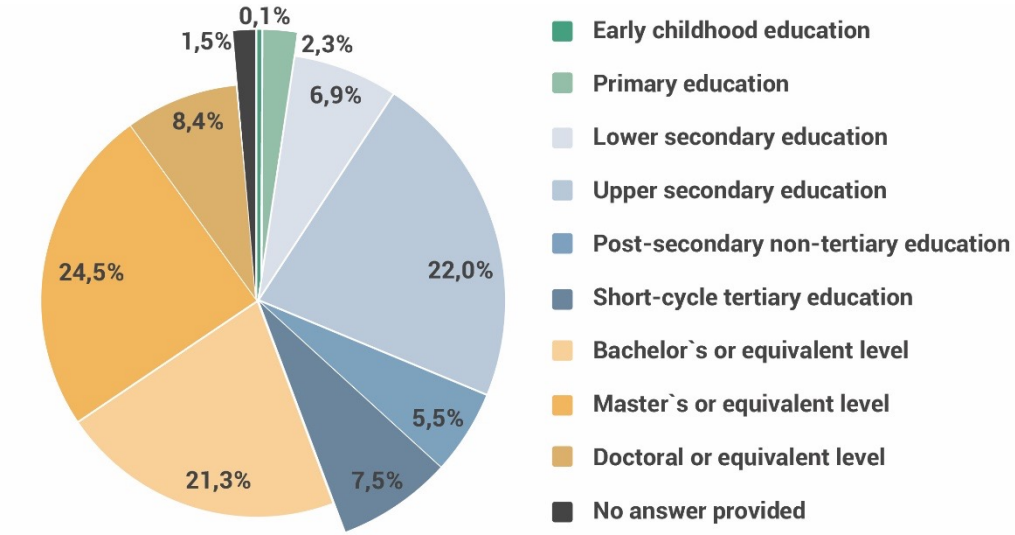


FIGURE 5.2
Highest level of completed education (n = 2.993).

5.1.4 Occupation

The largest occupation group comprised employed in professional and technical occupations; more than 30% of all responses, with answers being received from 2.950 persons. The second most common category, which comprised approximately a quarter of all responses, consisted of those in clerical occupations; the service sector. This was followed by individuals in higher administrative roles; 12,8% of the total. Occupations that required fewer qualifications, such as semi-skilled or unskilled work was less represented. The agricultural sector also had only a minor presence; less than 2% of respondents. The percentage of "no answer provided" was 8,9%.

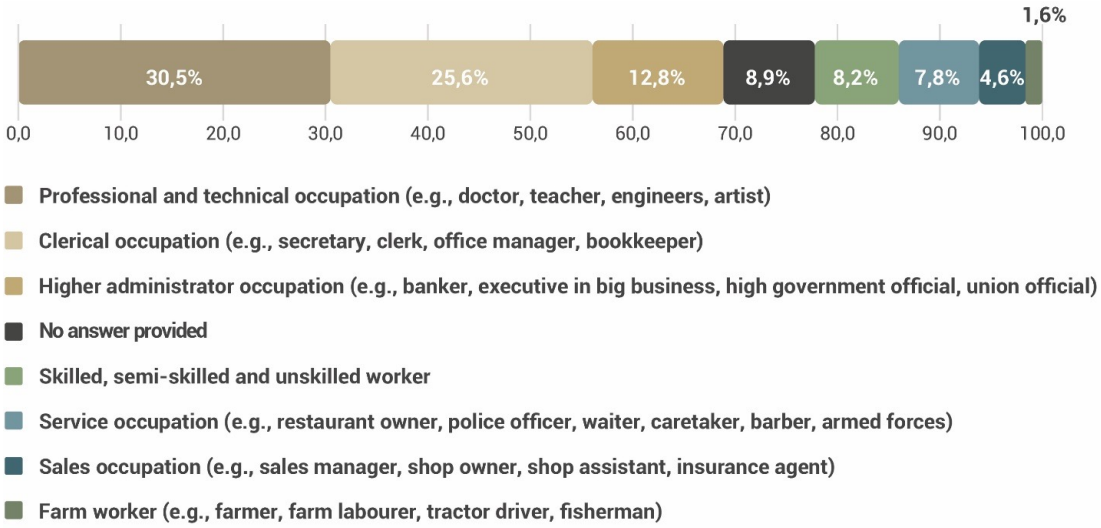


FIGURE 5.4 Occupation of the respondents (n = 2.950).

5.1.5 Status

Of 2.987 reported answers, the largest share of persons, 70,2%, were employed. The second most prevalent group was retired persons; 14,0% of respondents. 7,3% of respondents fell into the "other" category. Roughly one-third of the respondents who chose "other" indicated that they were self-employed, while nearly one-fifth specified themselves as being a housewife or househusband, with one-tenth being on parental or maternity leave. Among the other options specified by more than 5 individuals who selected "other" were being an entrepreneur or having a disability. Only a few individuals who selected "other" specified their status as being a farmer, a stay-at-home mother, a trainee, a fixed-term employee, or being engaged in voluntary activities. Those choosing "other" also included individuals who listed their status as a combination, such as being employed and a farmer or being employed and self-employed. Students constituted 4,8% of the respondents, while 3,7% identified themselves as being unemployed.

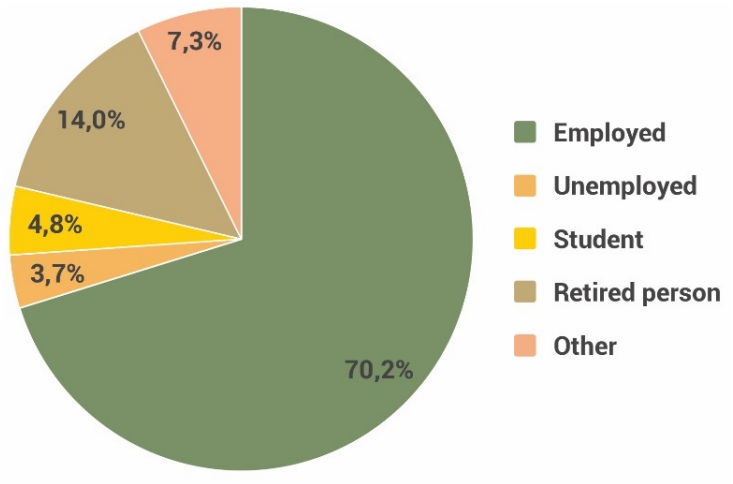


FIGURE 5.5 Current employment status of the respondents (n = 2.987).

5.1.6 Number of people in the household

Of the 2.996 respondents, the largest group was represented by individuals living in two-person households; 36%. Approximately 20% of the responses were from persons living in three-person households, while 20% were in four-person households. Those living in single households represented 16,2% of all responses. The smallest share, 8%, was from larger households with five or more members. More than 50% of respondents lived in a household with two or three people; thereby indicating the decreasing trend of larger households.

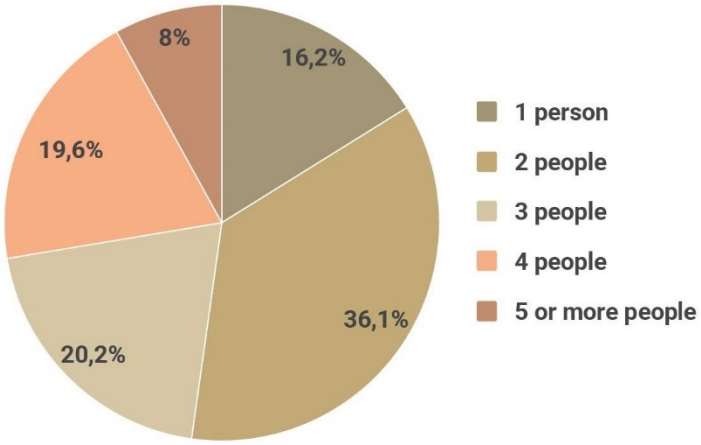


FIGURE 5.6
Share of respondents according to the size of the households (n = 2.996).

5.2 Overall satisfaction with QoL

The survey was conducted in the summer of 2023. In total, a sample of 3.000 respondents includes participants from Alpine regions in all Alpine countries, including Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia, and Switzerland. Most of the responses were collected online, with additional responses coming from the field survey in Austria.

5.2.1 Overall satisfaction with life

Overall life satisfaction reflects the general satisfaction of residents across Alpine countries and regions. It represents a perception of how satisfied individuals are with their lives as a whole. Respondents were asked to rate their general life satisfaction on a scale from 0 (extremely dissatisfied) to 10 (extremely satisfied). 2.719 responses were valid with 281 not answering. The average life satisfaction level across the Alpine area was 7, which indicated that residents in these areas tended to be rather satisfied with life.

If percentage for values 0 to 4, and 6 to 10 were summarised, 6,4% of people are dissatisfied and 67,6% are somehow satisfied with QoL. 26,2% of people are neither dissatisfied nor satisfied which is also the most selected score. The second-largest share comprised those who rated their life satisfaction as 8 (24,1%). Around 15% of respondents gave ratings of 9 and 7 for their satisfaction, while 6,7% reported being extremely satisfied (score 10), and approximately 2,5% expressed extreme dissatisfaction (scorer 0 to 2).

With regards to urban-rural typology, residents in rural areas (those living in the countryside – in a village or a hamlet) reported the highest life satisfaction, averaging at 7. In contrast, urban areas reported lower levels of life satisfaction, with an average score of 6. Intermediate regions fell in between, with an average life satisfaction score of 7.

This assessment could have been influenced by various factors, such as environmental aspects, accessibility to services and infrastructure, work and financial security, social relations, and governance. A closer look of correlation between the life satisfaction and different variable is described in section 5.2.8.

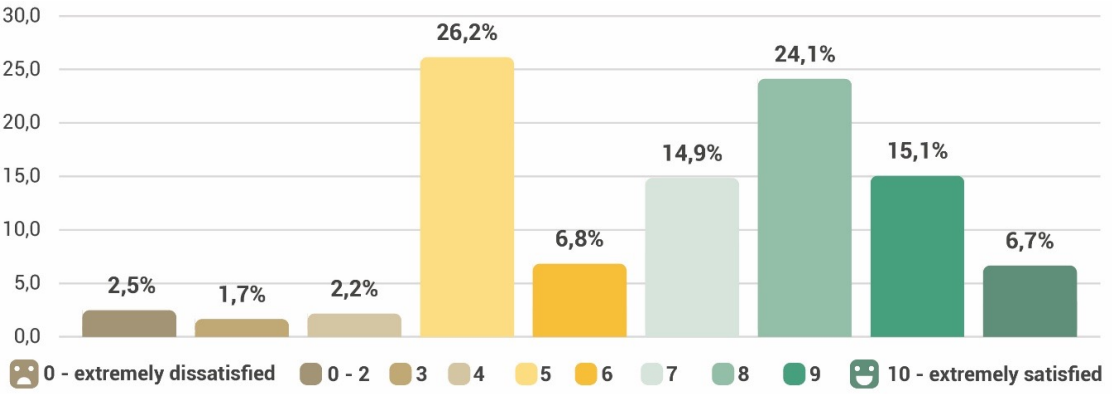


FIGURE 5.7
Overall satisfaction with life (n = 2.719).

5.2.2 Overall satisfaction with five QoL topics

Each of the QoL topics, including environment, services and infrastructure, work and financial security, social relations, and governance, can significantly influence an individual's overall quality of life and their perceived life satisfaction. Respondents were asked to evaluate their satisfaction with these five key QoL domains on a scale from 1 (extremely dissatisfied) to 5 (extremely satisfied).

According to the Figure 5.8 people were the most satisfied with the environment, altogether 59,4% evaluated it as either "extremely satisfied" or "satisfied". The second place was taken by social relations (57,4%), and the last by governance (only 24,0%). Altogether, governance was the worst evaluated element – 41,7% people expressed their satisfaction with it. The second worst evaluated category was work and financial security – 21,9% dissatisfied, while the most undecided people were in the case of infrastructure and services – 34,7% evaluated it as neither dissatisfied nor satisfied.

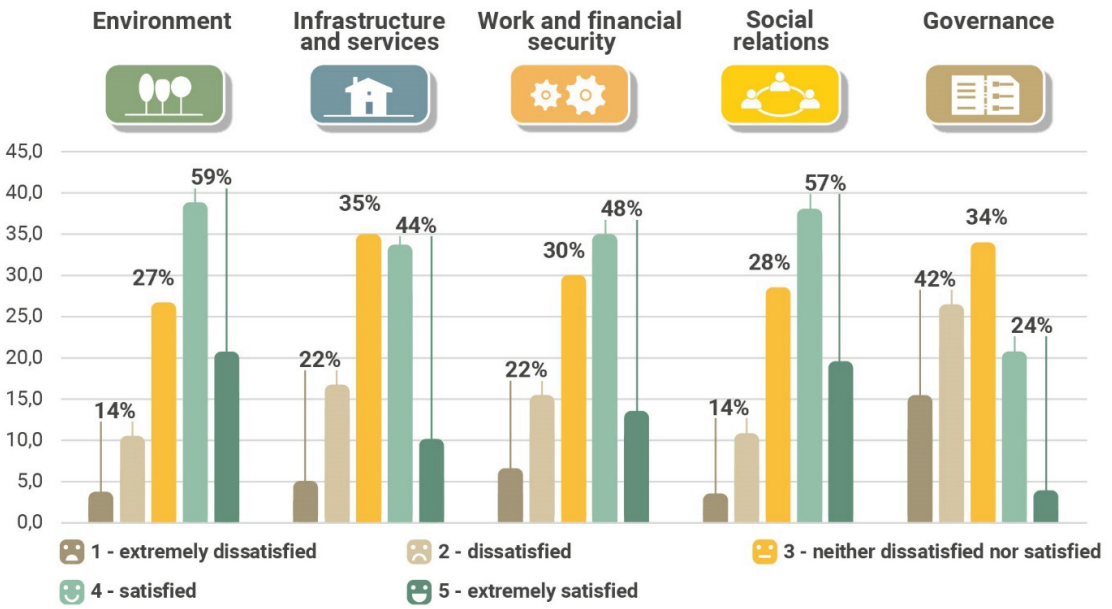


FIGURE 5.8
Overall satisfaction with five categories of QoL (environment: n = 2.990; infrastructure and services: n = 2.983; work and financial security: n = 2.986; social relations: n = 2.982; governance: n = 2.983).

Environment

Among the QoL topics, environment scored the highest with 3,6; residents were satisfied with this category. Notably, residents in rural areas reported slightly higher satisfaction with their environment (3,8). In contrast, satisfaction with the environment was lower in urban areas; 3,4 (and in intermediate areas it was 3,5). Figure 5.9 shows scores for the five types of settlement. The highest score was from people living in isolated hamlets (n = 358), the score of 3,9 means that they were rather satisfied. Also satisfied were people in country villages (3,7; n = 1.141) or a town or a small city (3,5; n = 1.006). In big cities (n = 205) and in the suburbs (n = 273) they were neither dissatisfied nor satisfied (both scores were 3,4).

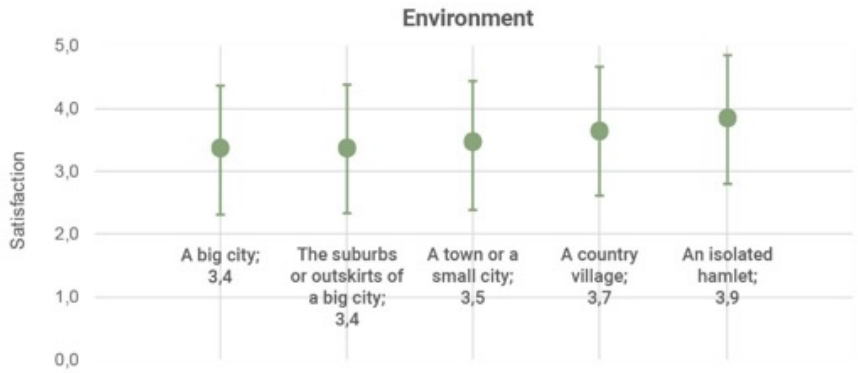


FIGURE 5.9 Satisfaction with the environment according to the type of the area.

Infrastructure and services

The average satisfaction with infrastructure and services, across the Alpine regions was 3,3; so on average, residents were not able to decide whether or not they were satisfied or dissatisfied with this element of QoL. Much like satisfaction with governance, the highest score was reported in urban areas (3,6) where people tend to be satisfied with infrastructure. For both rural and intermediate areas, the score was 3 (3,2 and 3,3). Regarding the five types, the highest score was for big cities (3,7; n = 206) and the suburbs (3,5; n = 271), while in all three other areas residents were neither dissatisfied nor satisfied, with isolated hamlets scoring the lowest; 3,0 (n = 359).

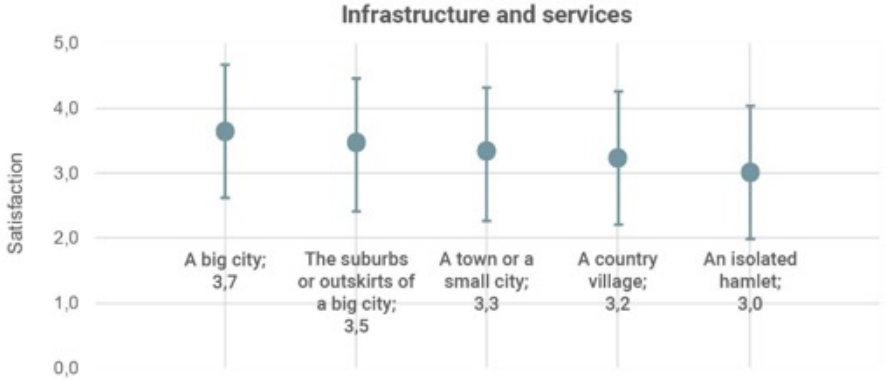


FIGURE 5.10 Satisfaction with the infrastructure and services according to the type of the area.

Social relations

In general, social relations received the same average scores as the environment, namely 3,6 (rounded up to 4), being satisfied. Much like the pattern observed with satisfaction pertaining to the environment, residents in rural areas tended to express higher satisfaction with their social relations; an average score of 3,7. There was not much difference in the scores from urban regions (3,5) and intermediate regions (3,6). For social relations there was not much difference in scores, people in all types of areas were rather satisfied with this element of QoL. The highest score was recorded for country villages (3,7; n = 1.138), and the lowest was for big cities and suburbs (3,5).

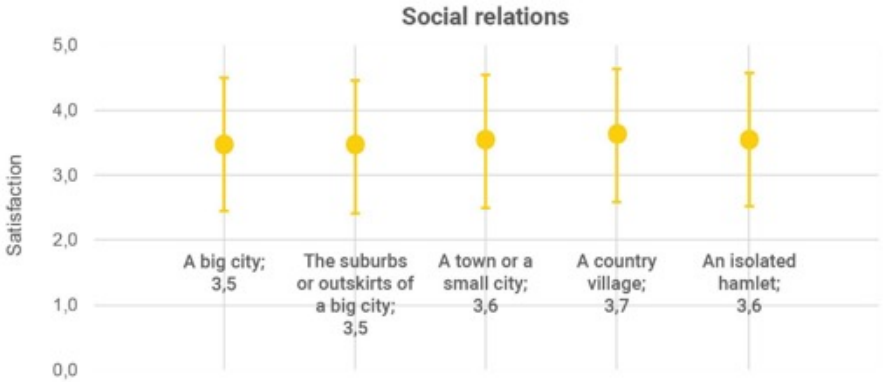


FIGURE 5.11 Satisfaction with the social relations according to the type of the area.

Work and financial security

The topic of work and financial security received an average satisfaction rating of 3,3 across the Alpine regions (so neither dissatisfied nor satisfied). When considering urban-rural typology, the highest score was found in rural areas (3,4), the lowest in intermediate regions (3,2) and the middle score was in urban areas (3,3). In the case of work and financial security the minimum score was 3,2 (a town or small city, n = 1.005), while the maximum was 3,4 (a big city, n = 205, and a county village, n = 1.139).

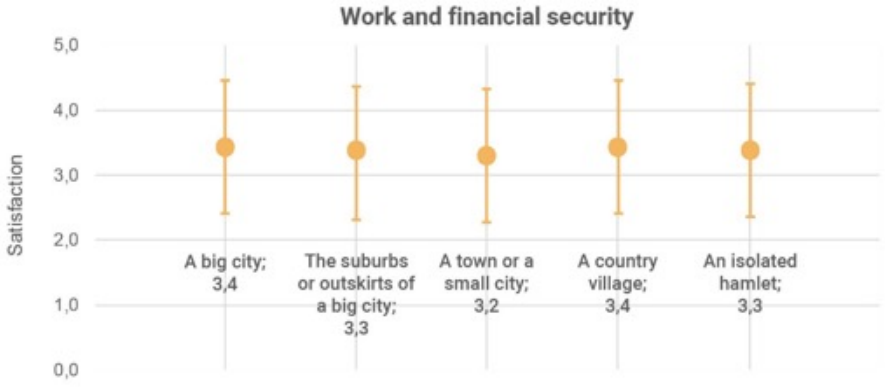


FIGURE 5.12 Satisfaction with the work and financial security according to the type of the area.

Governance

Among the QoL topics, the lowest average score was observed for satisfaction with governance (encompassing administration and politics). Across the Alpine regions, the average satisfaction score for governance was 2,7. Urban residents tended to report the highest level of satisfaction with governance, an average score of 2,9. Rural regions scored 2,7 and intermediate areas 2,6. The worst opinion of governance was recorded in the case of isolated hamlets, towns and small cities (2,6; n = 359 and n = 206), and the highest one was in big cities (3,0; n = 206) and the suburbs or outskirt of cities (2,9; n = 272).

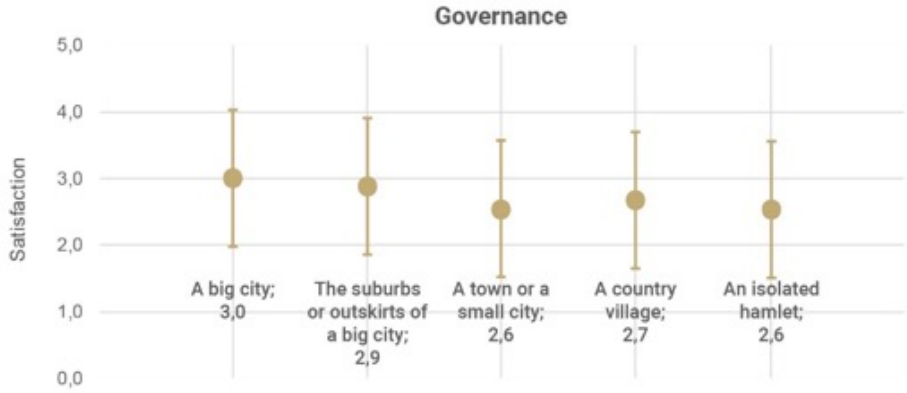


FIGURE 5.13 Satisfaction with the governance according to the type of the area.

5.2.3 Happiness

Happiness can be linked to life satisfaction and can also be influenced by various aspects of QoL. The major difference to QoL is that it corresponds to evaluation of one's state in that particular moment of answering the survey's question and does not reveal a general evaluation of one's state. Respondents were asked to rate their happiness on a scale ranging from 0 (extremely unhappy) to 10 (extremely happy). Altogether 2.878 persons provided an answer. Across the Alpine area, the average perception of happiness was rated at 6,8. In general, the majority of respondents rated their happiness as 5 or higher. The most frequently chosen grade was 5, with 26,8% of respondents selecting this option. The second most selected option was grade 8, chosen by 22,5% of respondents. 13,9% expressed their level of happiness with grade 9, while 5,1% reported being extremely happy. Grade 6 was selected by 8,1% of respondents, while approximately 6% of respondents stated that they were rather unhappy. Grade 7 was selected by 17,5% of respondents.

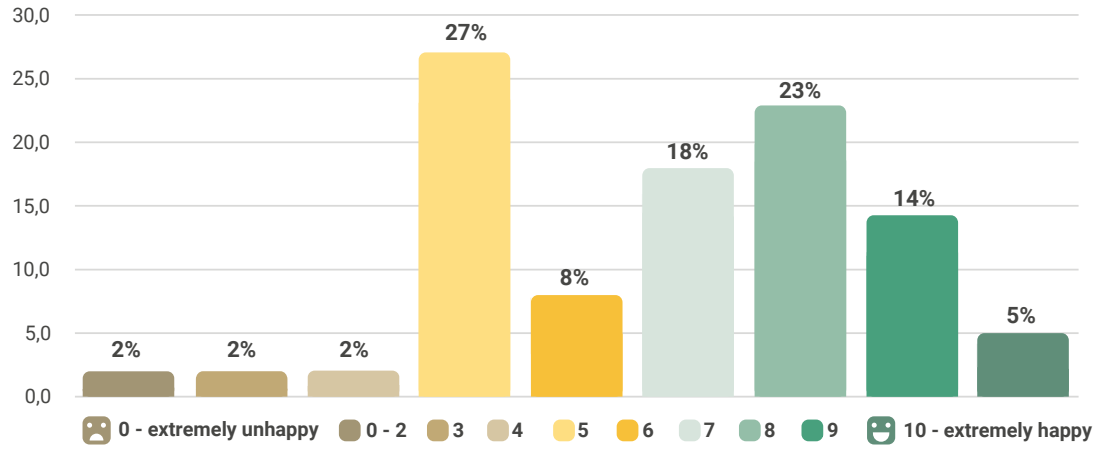


FIGURE 5.14 The happiness of respondents (n = 2.878).

5.2.4 What has happened to QoL in the last 10 years

People's perception of QoL evolves over time due to changing circumstances related to various aspects of QoL. These include environmental factors, the availability and accessibility of services and infrastructure, work conditions, financial security, social relationships, and governance. Respondents were asked to evaluate how their QoL has changed over the past decade, with response options including "significantly decreased", "decreased", "remained the same", "increased", and "significantly increased". 2.971 respondents answered this question.

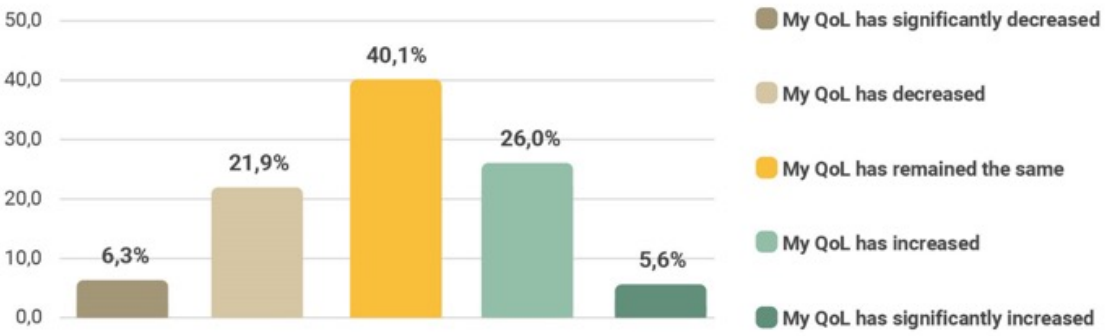


FIGURE 5.15 What has happened to QoL over the last 10 years (n = 2.971)

In general, a significant share of Alpine residents, altogether 40,1%, reported that their QoL had remained unchanged over the last 10 years. About one quarter of respondents noted that their QoL had improved during the period, while nearly 21,9% reported a decrease in QoL. A minority of respondents indicated that their QoL had significantly declined (6,3%) or significantly improved (also about 5,6%). No answer was provided in 29 cases.

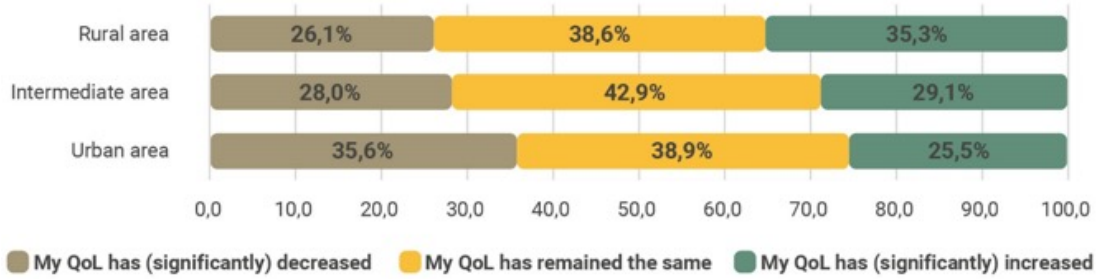


FIGURE 5.16 What has happened to QoL in the last 10 years when grouped in terms of urban-rural typology (urban area: n = 473; intermediate area: n = 998; rural area: n = 1.494).

When considering urban-rural typology, the most commonly chosen response in all types of regions was that QoL had remained unchanged over the past decade. In urban areas, the second most frequently selected response was a decrease in QoL, whereas in intermediate and rural areas, the second most chosen response was an increase in QoL. The share of respondents who reported a significant decrease in QoL was highest in urban areas, while the share that reported a significant increase was the lowest. In rural areas, the least common response was a significant decrease in QoL, and in intermediate regions, a significant increase in QoL was reported by the fewest number of respondents. The most positive change is visible in rural areas, where 35,3% of people reported that their QoL had increased, whilst in urban areas this figure was 25,5%.

5.2.5 What will happen to QoL in the next 10 years

Survey participants were asked to predict the future of their QoL over the next ten years. They were provided with five response options: "my QoL will significantly decrease", "my QoL will decrease", "my QoL will remain the same", "my QoL will increase", and "my QoL will significantly increase". 2.974 participants responded to this question.

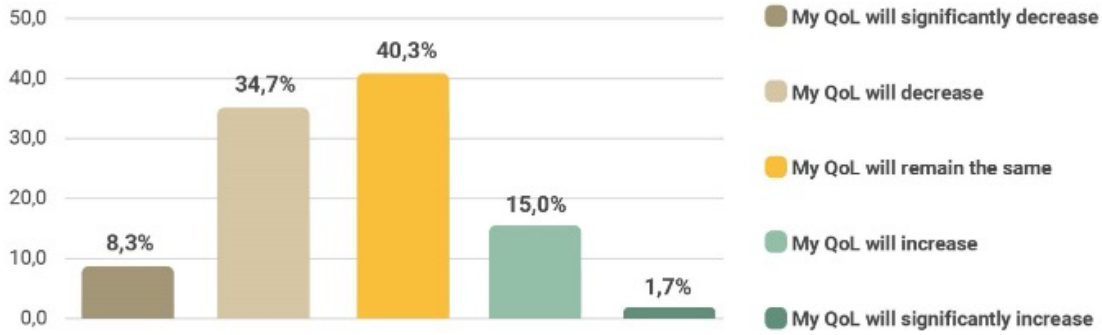


FIGURE 5.17 What will happen to QoL in the next 10 years (n = 2.974).

The most prevalent expectation among Alpine residents was that their QoL would remain unchanged, with 40,3% of the respondents selecting this response. The second most popular choice was the belief that QoL would decrease, chosen by 34,7% of respondents. Around 15,0% of participants anticipated an improvement in their QoL, while 8,3% were concerned that their QoL would significantly decline over the next decade. Only a small minority of respondents (less than 1,7%) expect a significant increase in their QoL. In general, there was a widespread consensus across the Alpine area that QoL over the next ten years would most likely decline (43,0%) or stay the same (40,3%).

When examining urban-rural typology, the most common expectation in all types of regions was that QoL would remain unchanged (scores of between 38,6 and 40,6%) or would decrease (scores of between 42,2 and 43,6%). The proportion of those who believed that their QoL would significantly decrease was highest in urban areas too (9,1% of urban residents selected this response). A minor share of respondents in all regions anticipated a significant increase in their QoL, with the share being 2,0% for urban, 1,5% for intermediate, and 1,2% in urban areas.

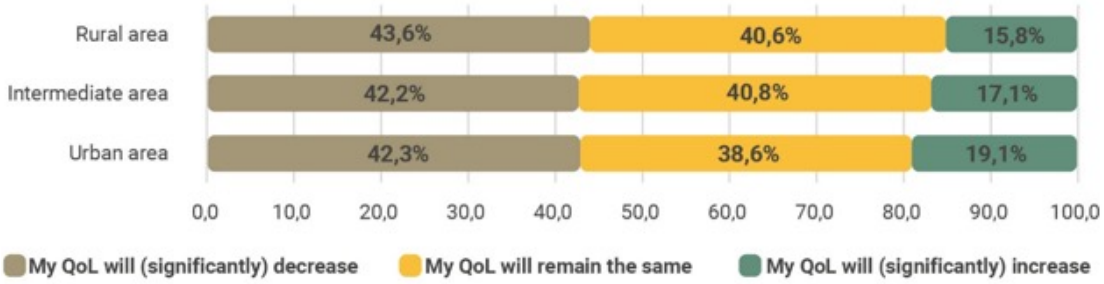


FIGURE 5.18 What will happen to Qol in the next 10 years considering urban-rural typology (rural area: n = 1.497; intermediate area: n = 997; urban area: n = 474).

5.2.6 Factors to influence QoL in the next 10 years

Respondents were not only asked to predict changes in their QoL over the next decade but also to identify the key factors that would contribute to those changes. They were presented with a multi-choice list of factors, and they could also provide their own answers. Across the Alps, the majority of respondents believed that personal health would be the primary driver of changes to their QoL. The second most commonly selected factor was climate change, followed by family life. Additionally, 39,6% respondents considered the macroeconomic situation as a significant influencer on their QoL, while 30,4% respondents thought that accessibility to services would play a crucial role. Career development was identified by approximately 26,9% respondents. Government actions and job (in)security were the least frequently chosen factors.

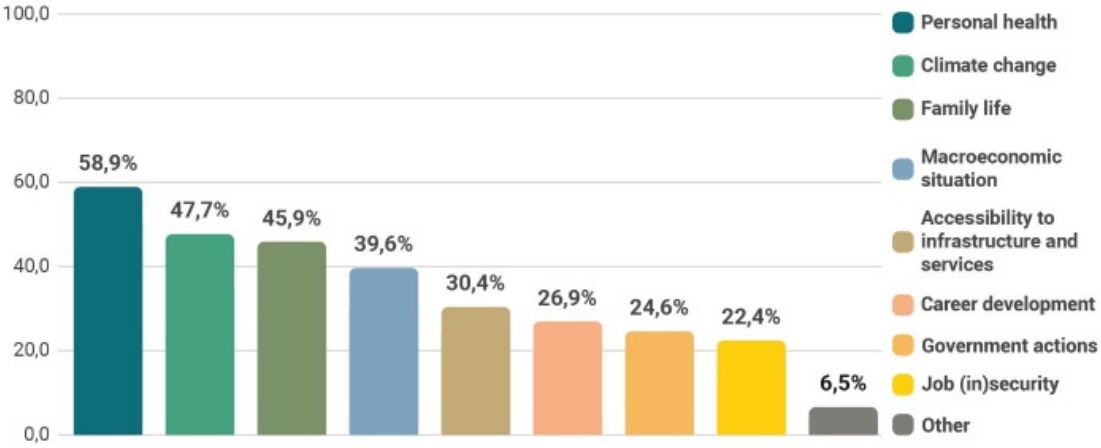


FIGURE 5.19
Factors influencing QoL in the next 10 years (n = 2.971).

As visible from Table 5.1, the most commonly selected factors in urban and rural areas were the same: personal health, climate change, and family life. Intermediate areas showed a similar pattern with these three factors also being the top choices. In addition, the macroeconomic situation was a prominent concern in intermediate regions. The largest dichotomy in the selection of factors according to the urban-rural typology was between the minimum and maximum values identified for accessibility to infrastructure and services (urban 22,5% and rural 34,3%) and the macroeconomic situation (urban 31,7% and rural 42,6%) suggests that the impact of these two factors may be related to type of the settlement that people live in.

Factors influencing QoL	Urban area (%)	Intermediate area (%)	Rural area (%)
Career development	30,1	27	25,9
Job (in)security	20	26	20,8
Family life	40,9	45,3	47,9
Personal health	55,7	55,4	62,2
Government actions	20,7	24	26,2
Climate change	46,3	49	47,2
Accessibility to infrastructure and services	22,5	28,3	34,3
Macroeconomic situation	31,7	38,9	42,6

TABLE 5.1
Share of respondents selecting certain factors as influencing their QoL over the next 10 years (grouped according to urban-rural typology).

Respondents also proposed additional factors which they believed would influence their QoL over the next 10 years. Factors noted included: tourism, retirement, migration (either changing region or emigrating), housing situation, social network, personal beliefs, aging and economic situation. A few respondents suggested factors related to the nature and/or spatial development such as soil sealing and urbanization, destruction of nature, encounters with wild animals, traffic, changes in biodiversity, nature preservation, pollution, natural disasters, and concerns about nature overprotection. The global situation was noted as well, e.g. there was a belief that there would be overall instability because of wars and conflicts worldwide, as was the individual situation of persons concerning the amount of free time, personal development and job opportunities.

5.2.7 Geographical variation in the overall satisfaction with QoL and happiness

In addition, how individual regions scored in their evaluations of overall satisfaction with QoL and happiness were checked. Calculation of the averages for NUTS 2 regions show that in four Alpine regions people were more satisfied with quality of life than in the others since they scored 8 out of 10. These four regions were the three Austrian regions of Lower Austria, Carinthia, Vorarlberg, and Eastern Switzerland. Five regions scored below average (score 6 out of 10), meaning that these areas were only moderately satisfied. Among these regions was Swiss Espace Mittelland and four Italian regions: Piedmont, Liguria, Lombardy, and Veneto.

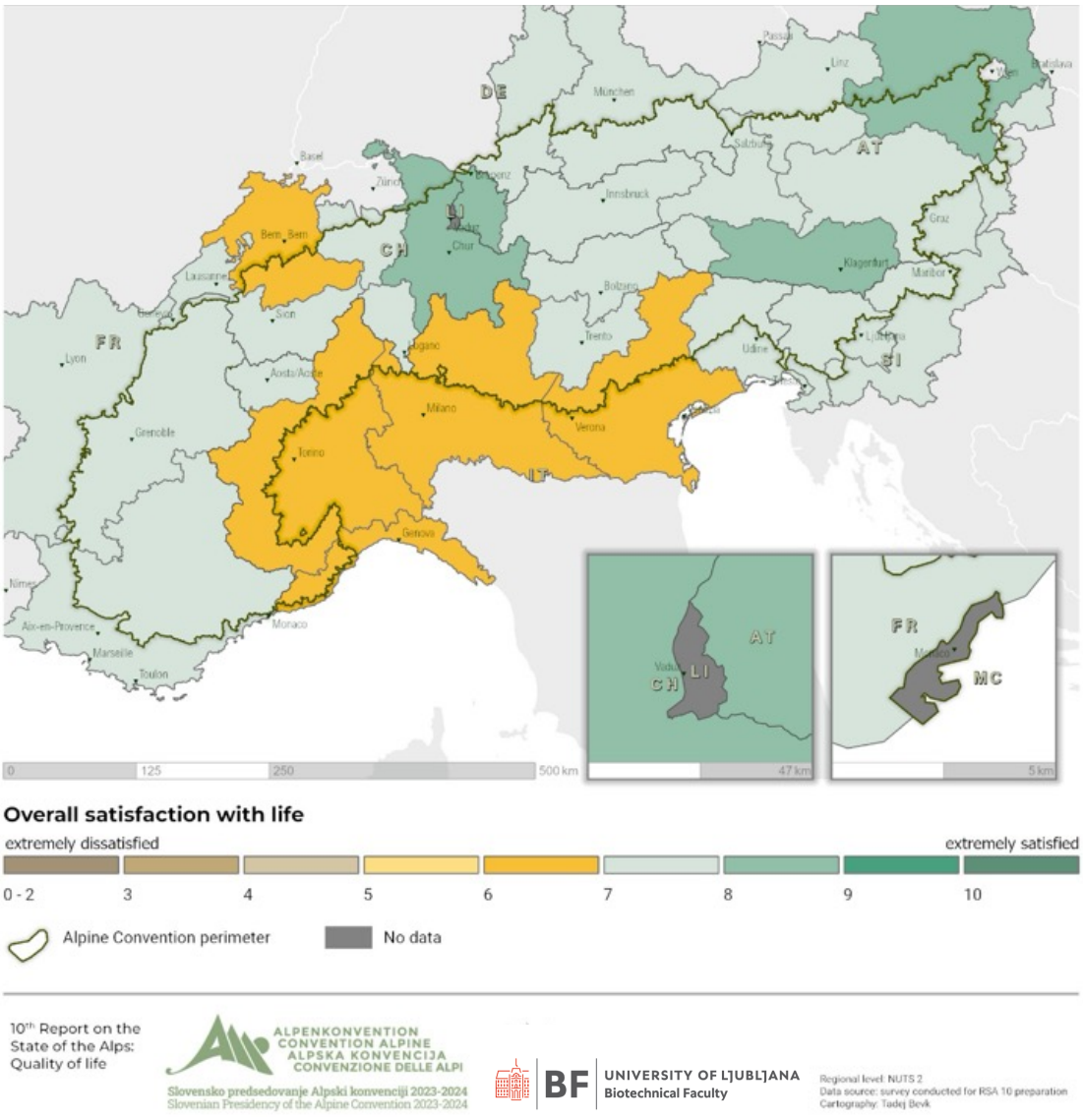


FIGURE 5.20
Overall satisfaction with QoL, NUTS 2 regions.

With regards to happiness, the happiest inhabitants were those from three Austria NUTS 2 regions: Burgenland, Carinthia, and Upper Austria. The lowest score (6 out of 10) was again identified for five out of eight Italian regions (Piedmont, Liguria, Lombardy, Friuli-Venezia Giulia, and Veneto), two Swiss regions (Central Switzerland, and Ticino), and one French region (Provence-Alpes-Côte d'Azur). The rest of the regions scored an average of 7.

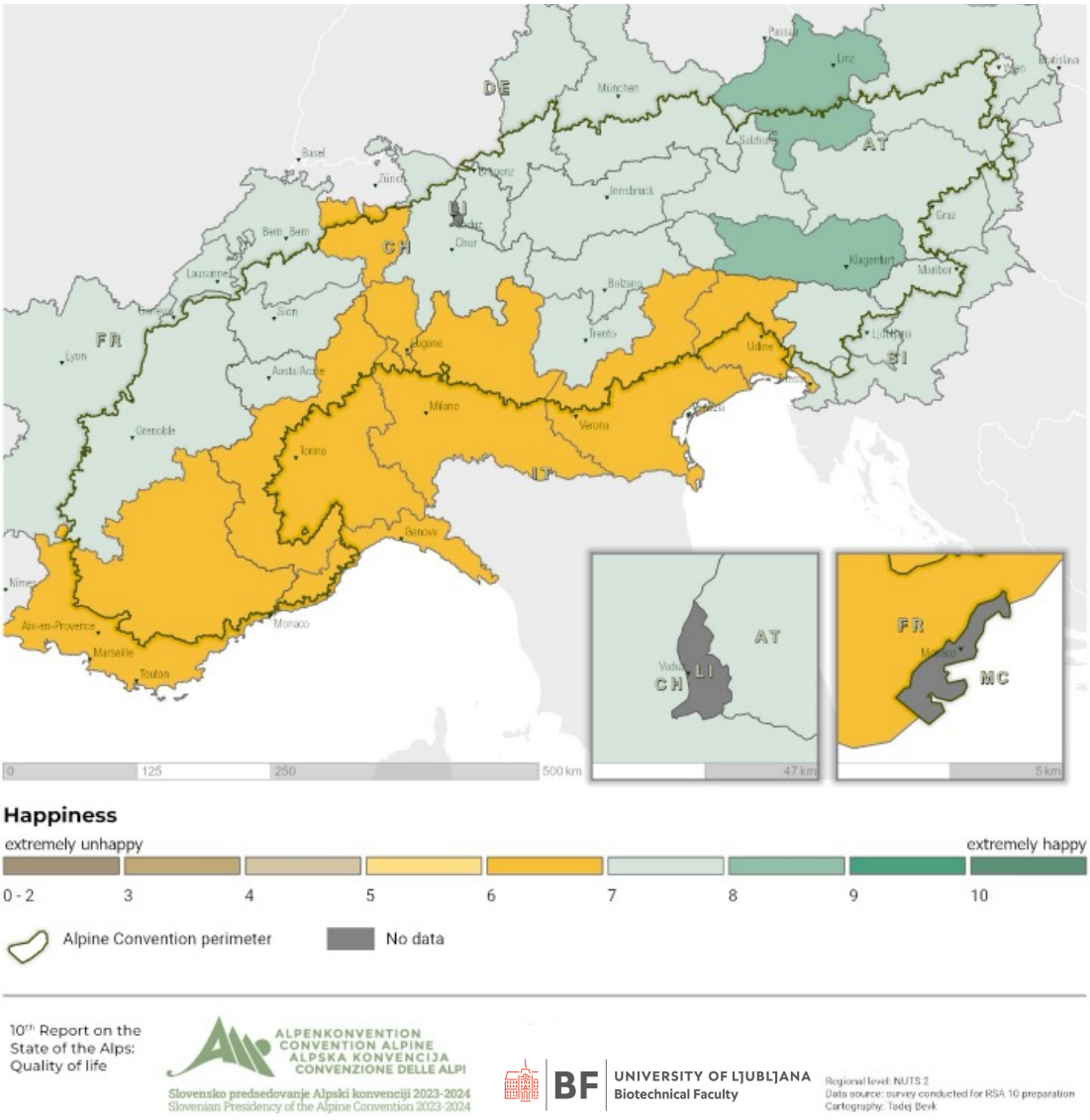


FIGURE 5.21
Overall happiness, NUTS 2 regions.

The distribution of scores shows those that were least satisfied with the environment were Italian Alpine inhabitants. The most selected score for infrastructure and services was 3, meaning that in majority inhabitants are neither dissatisfied nor satisfied. For Italy, only in Trento the environment was evaluated as satisfactory. Governance scored only 2 or 3 in all regions, the score 2 – dissatisfied was granted for all Italian NUTS 2 regions, except for South Tyrol where people were neither dissatisfied nor satisfied. Work and financial security were especially good in Germany, Austria, and Switzerland, whilst in all French, Italian, and Slovenian regions they were neither dissatisfied nor satisfied. With regards to social relations people in the Alps were mostly satisfied, except in the French region Provence-Alpes-Côte d'Azur, Italian Piedmont, Valle d'Aosta, Liguria, Lombardy, Veneto and both Slovenian regions (score received was neither dissatisfied nor satisfied).

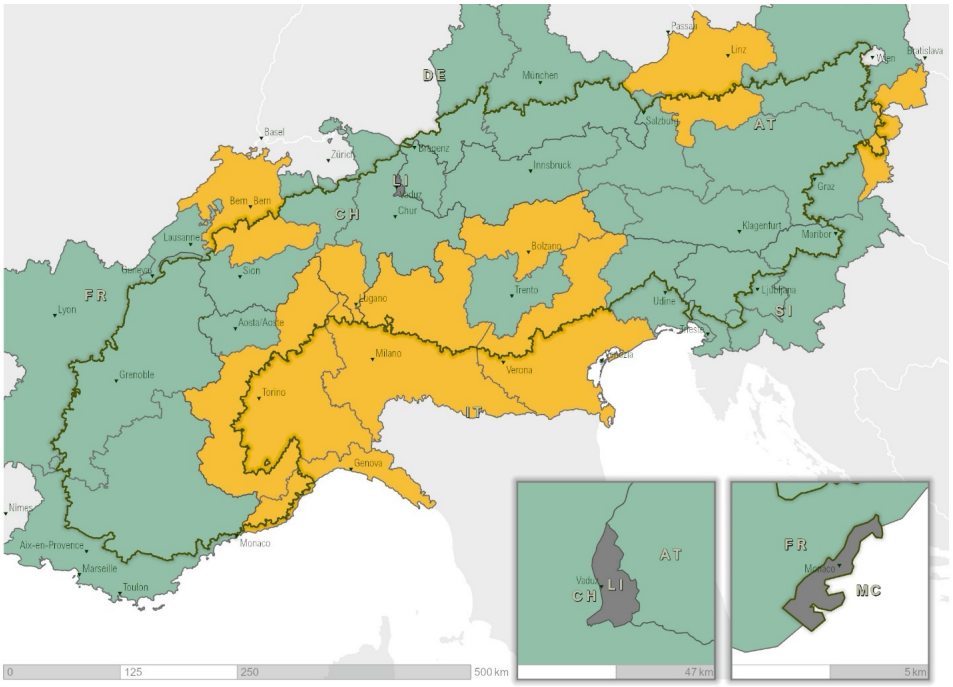


FIGURE 5.22a
Satisfaction with environment, NUTS 2 regions.

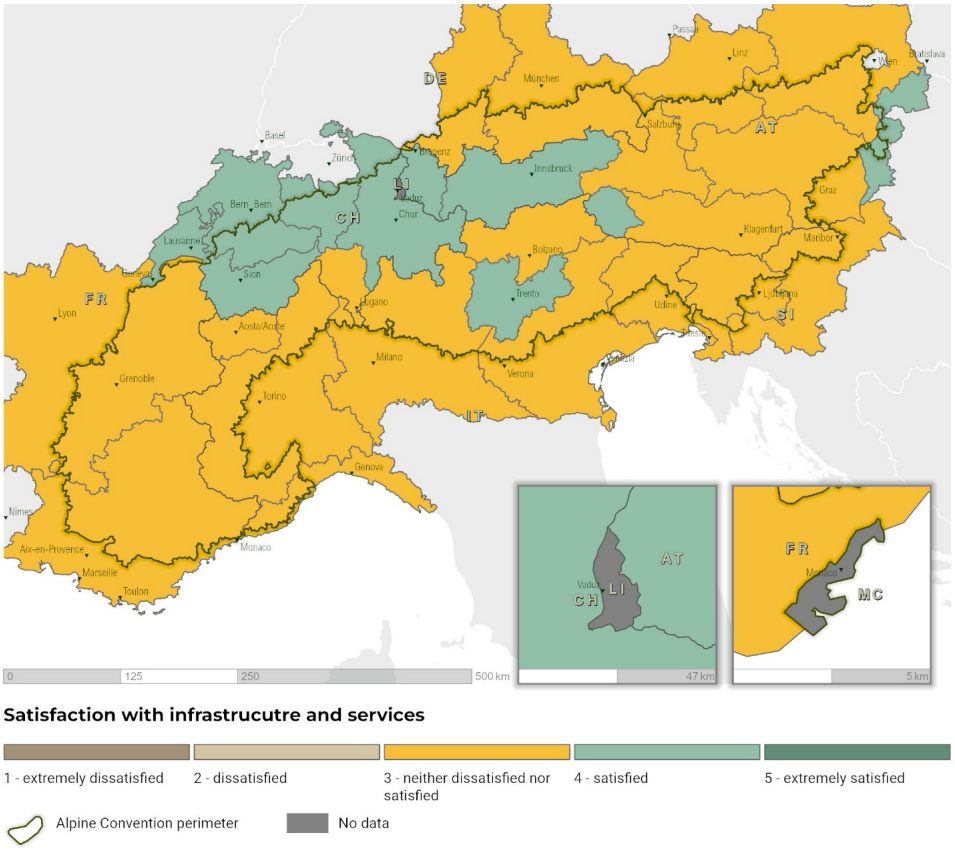
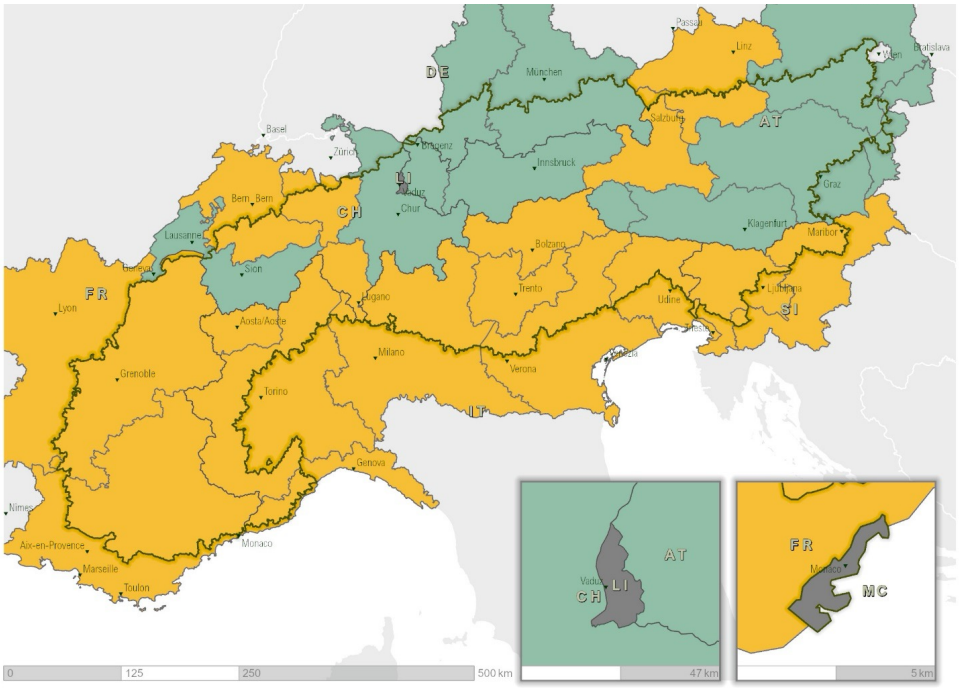


FIGURE 5.22b
Satisfaction with infrastructure and services, NUTS 2 regions.

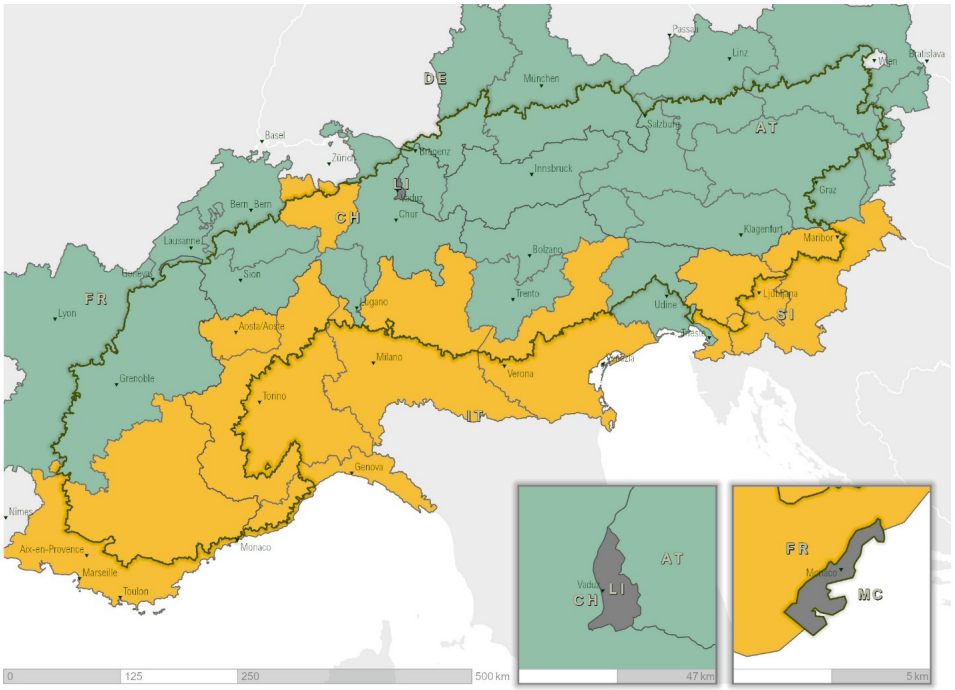


Satisfaction with work and financial security

1 - extremely dissatisfied | 2 - dissatisfied | 3 - neither dissatisfied nor satisfied | 4 - satisfied | 5 - extremely satisfied

Alpine Convention perimeter | No data

FIGURE 5.22c Satisfaction with work and financial security, NUTS 2 regions.



Satisfaction with social relations

1 - extremely dissatisfied | 2 - dissatisfied | 3 - neither dissatisfied nor satisfied | 4 - satisfied | 5 - extremely satisfied

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FIGURE 5.22d Satisfaction with social relations, NUTS 2 regions.

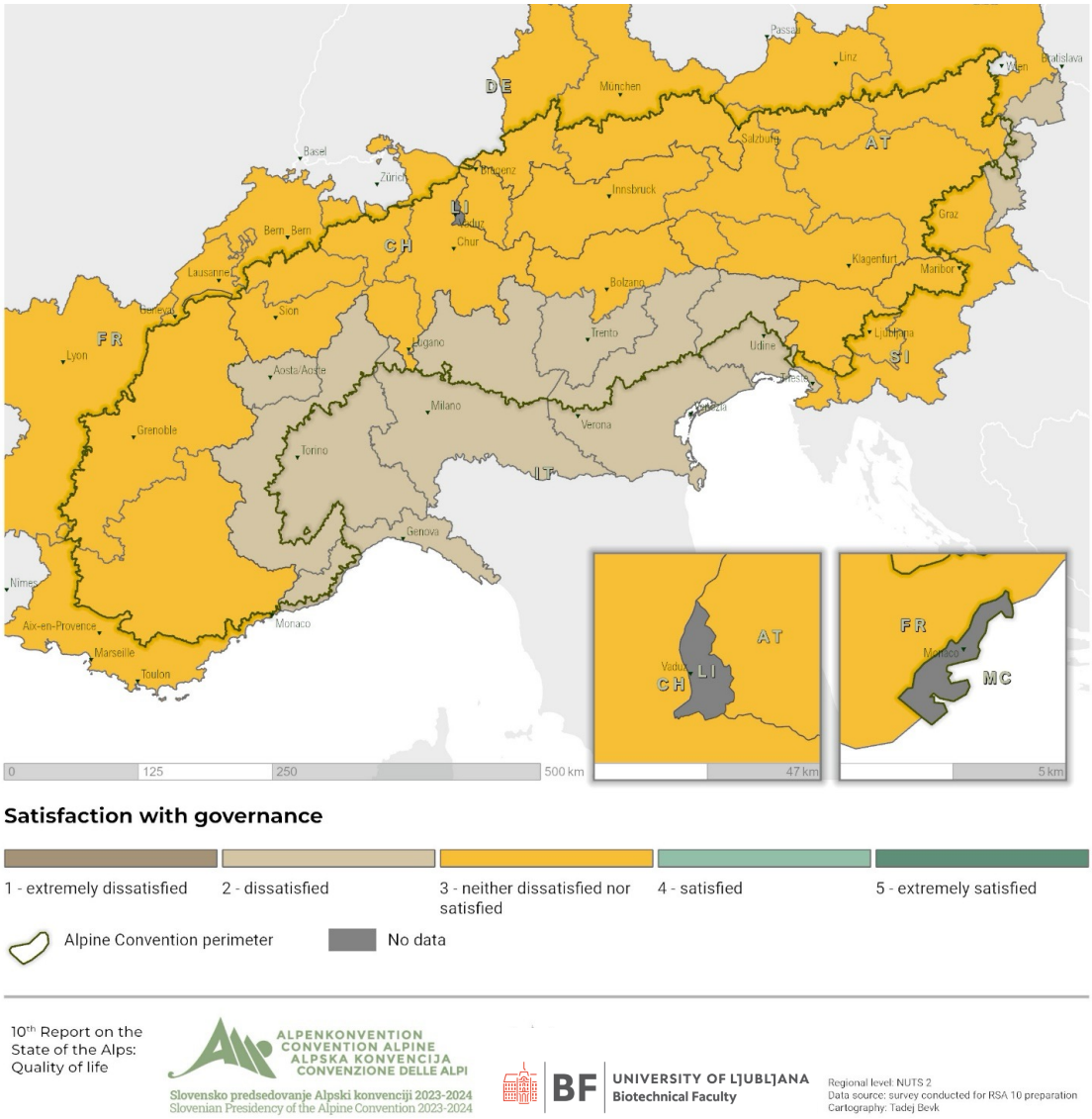

FIGURE 5.22e Satisfaction with governance, NUTS 2 regions.

5.2.8 Variables related to the satisfaction with QoL, its elements and happiness

The Spearman rank correlation coefficient or Spearman's ρ was calculated using SPSS in order to identify which survey variables correlated to the quality of satisfaction and happiness. Spearman's coefficient is a nonparametric measure of rank correlation (statistical dependence between the rankings of two variables). It assesses how well the relationship between two variables can be described using a monotonic function. The values were interpreted in the following way: below 0,4 – no or weak correlation, 0,4 to 0,59 – moderate correlation, 0,60–0,79 – strong correlation and 0,80 to 1,0 – very strong correlation.

Calculations of correlation were performed for the variables of general satisfaction, satisfaction with individual elements, time travel to services, satisfaction with services, work conditions elements, housing, public transport, and set of variables related to activities performed to contribute to sustainable living. Some weak correlation with values over 0,4 was present correlating the variables like travel time to one service with travel time to the other, as e.g. for average time to child-care is strongly correlated with the time to education (primary school; Spearman coefficient with value 0,671, 2-tailed significance 0,000), which could be explained by the fact that these two services are

often found together on one location or the fact if the local community secures one of the services, e.g. kindergarten, it might probably secure the other as well, e.g. primary school. In the rest of the services, the travel times are moderately or weakly correlated. Furthermore, variables concerning satisfaction with one service correlated to the satisfaction with other services moderately, as in the case of variable satisfaction with the health care with the variable satisfaction of education (primary care; value of 0,623, 2-tailed significance 0,000) or variable satisfaction with the education (primary care) with the variable satisfaction of child care (0,759, 2-tailed significance 0,000). In addition, moderate correlation was spotted also for the following pairs of variables:

- satisfaction with work and financial security with satisfaction with salary (0,463; 0,000);
- satisfaction with governance with satisfaction with infrastructure and services (0,439; 0,000); and with work and financial security (0,419; 0,000);
- satisfaction with work and financial security with satisfaction with social relations (0,447; 0,000);
- satisfaction with public transport with satisfaction with infrastructure and services (0,502; 0,000);
- satisfaction with different correlated work conditions, the highest in the case of number of vacation days and parental leave duration (0,596; 0,000).

In addition, correlation was checked for variables concerning satisfaction and the basic data of participants. Not many correlations were defined, so it can be concluded that variables such as the type of area people lived in, age, gender, educations level, profession, and status were not correlated with any of measured satisfactions and, thus, do not impact the satisfaction with quality of life or its elements. There was moderately weak negative correlation between education and profession (-0,457; 0,000). A similar moderately weak negative correlation was spotted for the satisfaction with work and financial conditions how well people coped on their present incomes (-0,452; <0,001). Happiness was not identified to be correlated with any measured satisfaction or basic data, just the overall satisfaction with quality of life. In this case strong correlation was identified (0,683; 0,000).

We were also interested as to whether performing activities that are considered sustainable are in any way related to people's satisfaction with quality of life or happiness. In this case no correlation was identified, with Spearman's values below 0,2 or even 0,1. Very weak correlation was reported for people who limited water usage; there was a weak correlation with regards to whether they used energy efficiently (0,245; 0,000).

5.3 Environment

5.3.1 Satisfaction with the environment

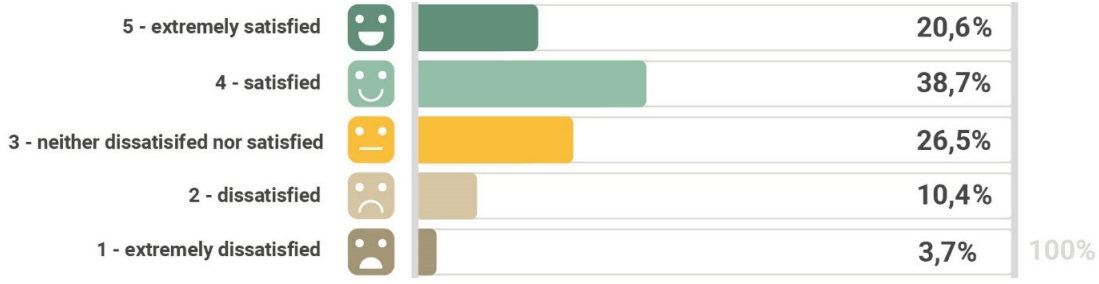

FIGURE 5.23
Satisfaction with the environment (n = 2.990).

Respondents were asked to assess their satisfaction with the environment, using a scale that ranged from 1 (extremely dissatisfied) to 5 (extremely satisfied). Altogether 2.990 responses were collected. Generally, the environment was one of the aspects of QoL

with the highest levels of satisfaction with 59,3% of respondents rating their satisfaction with the environment as 4 or higher. The most common response, which accounted for nearly 38,7% of responses, was a satisfaction rating of 4. 20,6% of all respondents gave the highest rating of 5, signifying an extremely high level of satisfaction. Roughly a quarter of all respondents (26,5%) reported their satisfaction level as 3, while 14,1% of all participants were dissatisfied.

5.3.2 Satisfaction with the environment

QoL is significantly influenced by various environmental factors which can either enhance or diminish it. These factors encompass air quality, water quality, soil conditions, the presence of vegetation, and two factors related to pollution: noise pollution and light pollution. Respondents were asked to evaluate their satisfaction with these aspects using a scale that ranged from 1 (extremely dissatisfied) to 5 (extremely satisfied). They were also given the option to select "not applicable" if they found certain environmental aspects irrelevant to their situation. Furthermore, respondents were invited to suggest additional environmental aspects (see Table 5.2) and asses their satisfaction with them. The number of provided answers was not the same for each of the elements, the least number of responses was 2.987 and the maximum was 2.995.

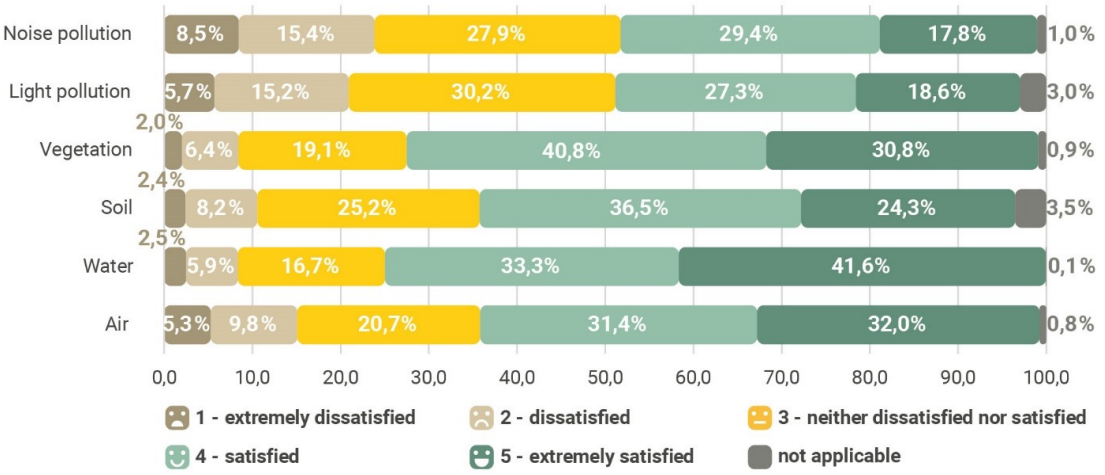

FIGURE 5.24 Satisfaction with environmental aspects (air: n = 2.995; water: n = 2.991; soil: n = 2.989; vegetation: n = 2.987; light pollution: n = 2.989; noise pollution: n = 2.992).

Across the Alpine region, residents generally expressed a high degree of satisfaction with environmental aspects, with most ratings falling within the range of 4 and 5. Residents tended to be particularly satisfied with the quality of water, air, vegetation, and soil. Slightly lower satisfaction levels were observed with regards to noise and light pollution, perhaps partly due to the negative connotations associated with the term "pollution".

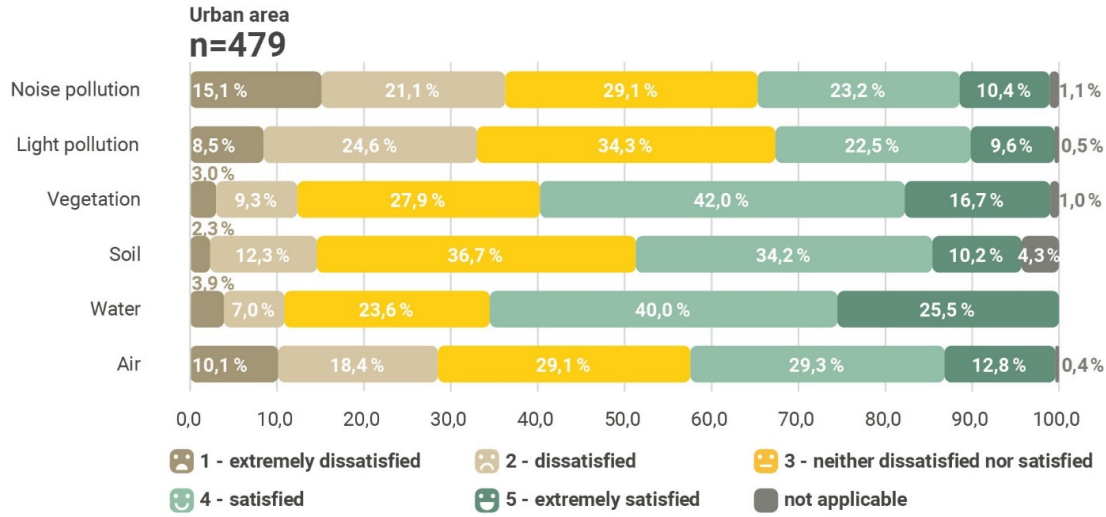

FIGURE 5.25a Satisfaction with environmental aspects according to urban-rural typology (urban area: n = 479).

When it came to satisfaction with air quality, rural residents reported higher levels of satisfaction compared to their urban counterparts. Similarly, rural residents exhibited the highest levels of satisfaction with water quality, soil conditions, and the presence of vegetation. Additionally, rural regions experienced lower levels of light and noise pollution. Consequently, residents in rural areas generally expressed higher satisfaction with environmental aspects compared to those living in more urbanized areas.

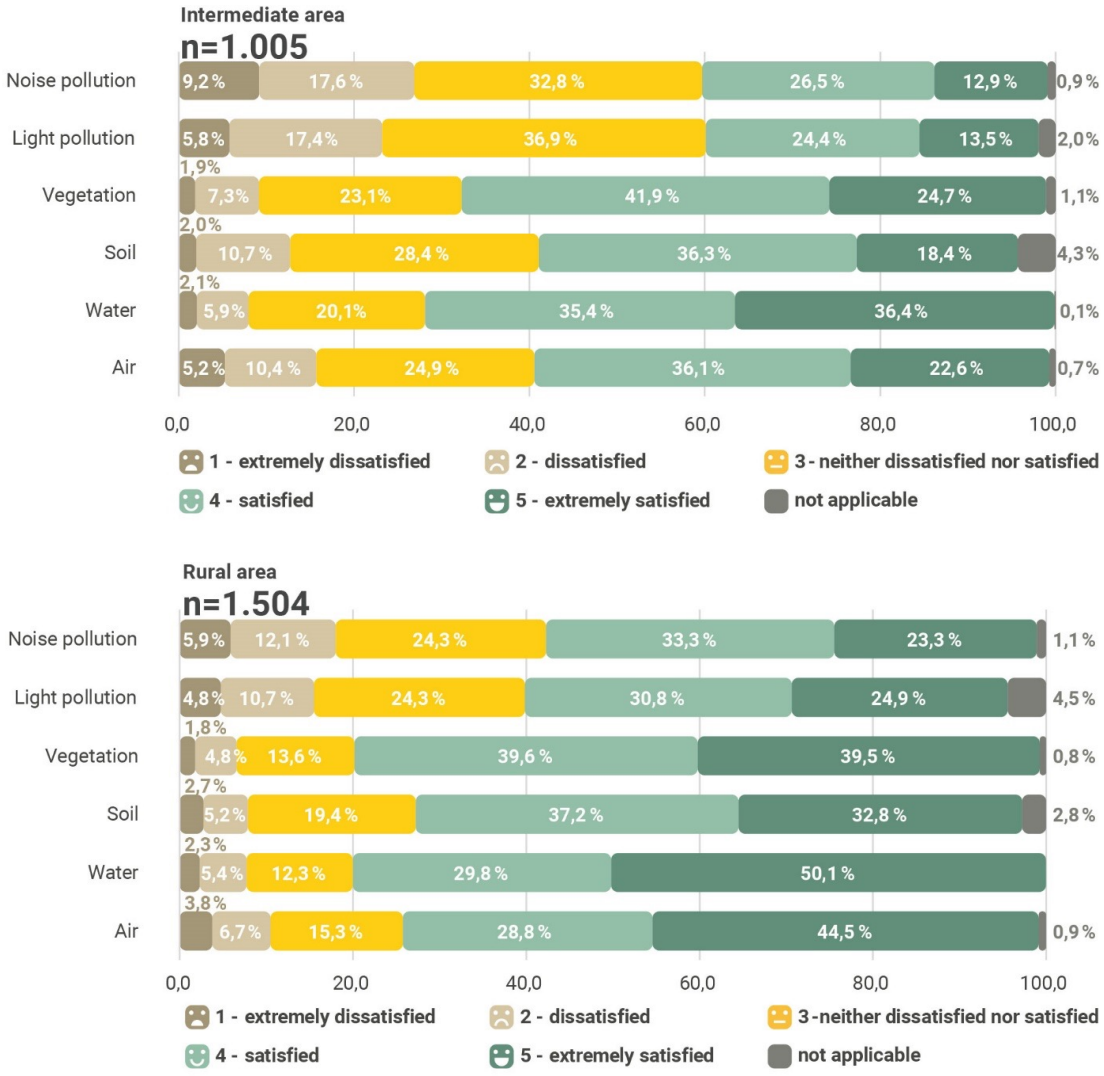

FIGURE 5.25b–c
Satisfaction with environmental aspects according to urban-rural typology (intermediate area: n = 1.005; rural area: n = 1.504).

Respondents were also able to provide additional elements of environment and evaluated their satisfaction with them under the option "other". Mostly they listed the ones with which they were dissatisfied such as nature-related phenomena; biodiversity, forests, fauna, heat, nature protection and so on, or human-related aspects of environment such as traffic, soil sealing, waste, spatial planning, overtourism, agriculture, plastic, and land use; for more refer to Table 5.2.

Level of satisfaction	Comments of the respondents
Satisfied	**Nature-related:** nature, winters, cooler summer, wildlife, preserved areas, landscape, energy, liveability, biodiversity, cleanliness **Human-related:** seasonal tourism, quiet, social life, traffic, airplane pollution, overtourism
Neither dissatisfied nor satisfied	**Nature-related:** wildlife preservation, landscape, snow, fauna, woods, cleanliness **Human-related:** transport, traffic, sociability, tourism, waste
Dissatisfied	**Nature-related:** forest, predators, bark beetle, temperatures, preserved areas, biodiversity, natural space, biogas plants, species protection, nature protection, heat, fauna, organic crops, watercourses, invasive species, wild animals, erosion **Human-related:** manure, traffic, soil sealing, waste, streets, spatial planning, overtourism, emissions, development, inconsiderate people, cultural and social life, transport, isolation, food resilience, people, speed limitations, agriculture, odours, plastic, land use, pesticides

TABLE 5.2
Satisfaction with other environmental aspects.

5.3.3 Self-perceived sustainability

Given the recognition of sustainability as a crucial element in preserving the environment and promoting sustainable development and life in the Alpine region, respondents were asked as to their daily engagement in activities perceived as sustainable. The multiple-choice questions included the following activities:

- Reducing, recycling, and composting waste.
- Purchasing local and seasonal produce.
- Decreasing meat or animal product consumption.
- Growing their own food, whether through gardening or balcony cultivation.
- Reducing the acquisition of new products.
- Opting for second-hand or refurbished items, including clothing, appliances, and furniture.
- Limiting water usage.
- Responsible energy usage, including taking electricity-saving measures or using renewable energy.
- Utilizing public transportation or cycling.

Altogether 2.995 participants responded to this question. Across the Alpine regions, the most widely practiced sustainable action was the reduction, recycling, and composting of waste (88,9% of all responses). The second most selected action was buying local and seasonal products, followed by responsible energy usage. The least frequently adopted sustainable practices included buying second-hand or refurbished items (35,6% of participants), using public transportation 43,4%), and undertaking one's own food production (46,2%).

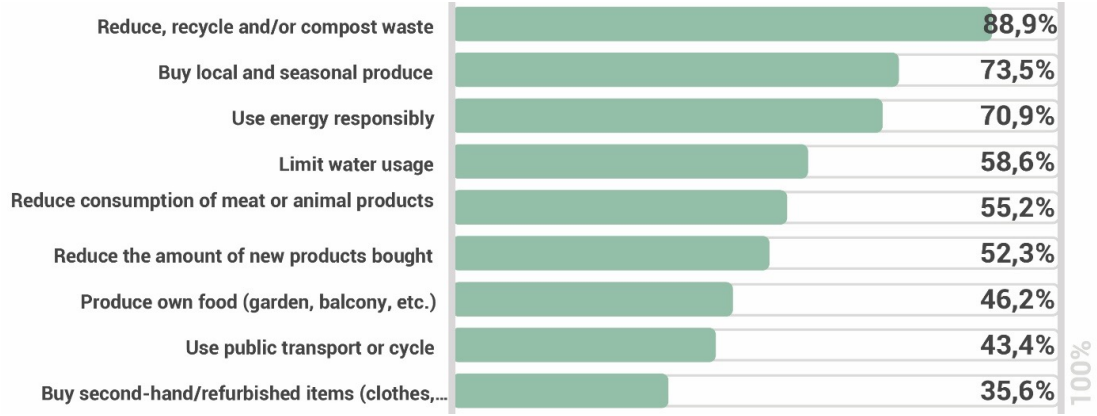

FIGURE 5.26
How respondents engage in activities which are perceived as sustainable (n = 2.995).

191 respondents also offered additional activities that were not listed, under the option "other" that we then grouped according to purpose:

- **fuel saving:** walking or cycling for daily errands, avoiding air travel, owning an electric car or a hybrid, participating in car-sharing, limiting car usage, adhering to speed limits, not owning a car,
- **energy saving and production:** installing solar panels, utilizing district heating, using energy from renewable sources, minimizing travel, achieving energy self-sufficiency,
- **second-use or rational use of resources:** repairing items, following a vegetarian or vegan diet, practicing overall consumption reduction, managing waste collection, opting for ecological construction, and knitting or sewing one's own clothes, avoiding plastic packaging, purchasing organic food,
- **activism:** engaging in activism to promote sustainable actions and lifestyles.

When considering urban-rural typology (see Figure 5.27), the most prevalent sustainable activity across all types of regions was the reduction, recycling, or composting of waste. In rural and intermediate regions, the second most commonly adopted activity involved purchasing local and seasonal products; while in urban areas this place was taken by the responsible use of energy. The least practiced sustainable activity in urban areas was the production of one's own food, whereas in intermediate and rural regions, the least commonly adopted activities included buying second-hand or refurbished items, using public transport (for rural regions), and growing own food (for intermediate regions).

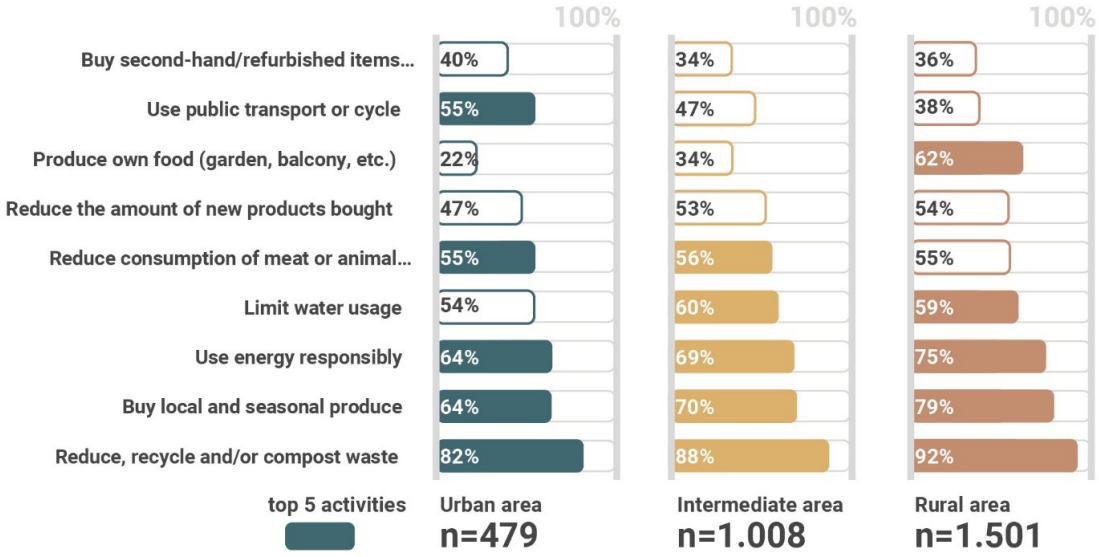

FIGURE 5.27
How respondents engage in activities perceived as sustainable according to urban-rural typology, (urban area: n = 479; intermediate area: n = 1.008; rural area: n = 1.501).

Respondents were also encouraged to evaluate the level of sustainability associated with their current lifestyles by choosing from the following options: "very sustainable", "sustainable", "moderately sustainable", "not sustainable", and "not sustainable at all". Altogether 2.987 respondents provided an answer. Across the Alpine region, an absolute majority of respondents (almost 53,9%) assessed their lifestyles as being moderately sustainable. More than one third (almost 34,9%) indicated that they were living sustainably, while the lowest percentage considered their lifestyles to be completely unsustainable (less than 0,6%). From this, it is evident that a significant portion of individuals in the Alpine area are taking actions that they perceive as contributing to sustainability.

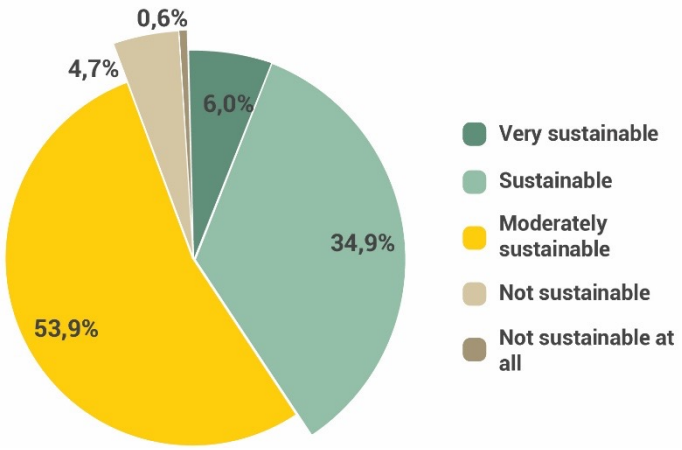

FIGURE 5.28 Lifestyle sustainability of the respondents (n = 2.987).

When examining urban-rural typology, the most commonly selected response across all types of regions was "moderately sustainable". The proportion of individuals who viewed their lifestyle as "sustainable" was highest in urban areas, with nearly 40% choosing this option. Additionally, the percentage of respondents who perceived their lifestyles to be "very sustainable" was also highest in urban areas. The overall trend of self-perceived sustainability remained consistent across all types of regions.

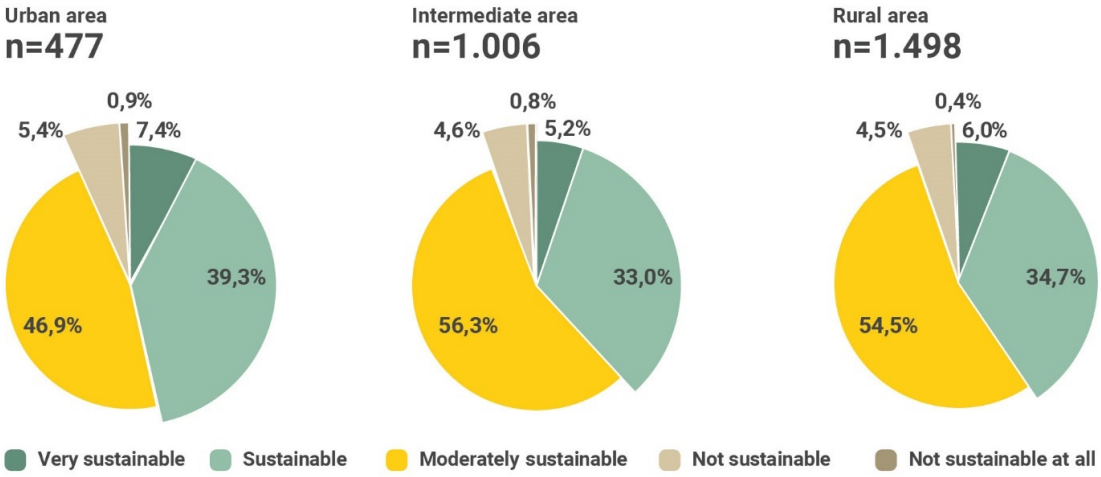

FIGURE 5.29 Lifestyle sustainability of the respondents according to urban-rural typology (urban area: n = 477; intermediate area: n = 1.006; rural area: n = 1.498).

5.3.4 Living in a nature protected area

Nature protected areas are recognized as a measure which contributes to the preservation of nature and the environment, as well as the protection of the climate and biodiversity. Respondents were asked about their residence in any form of nature protected areas, such as natural parks, regional parks, or biosphere reserves. 3.000 of them answered. Approximately 14% of respondents indicated that they lived in a designated nature protected area, while nearly 82% responded with "no". Additionally, close to 4% stated that they would not know whether they resided in a nature protected area or not. When considering urban-rural typology, the highest share of residents in nature-protected areas was observed in rural regions, accounting for slightly over 20%. In contrast, the percentage in urban and intermediate regions was notably lower, with both types showing a similar proportion of just above 7%.

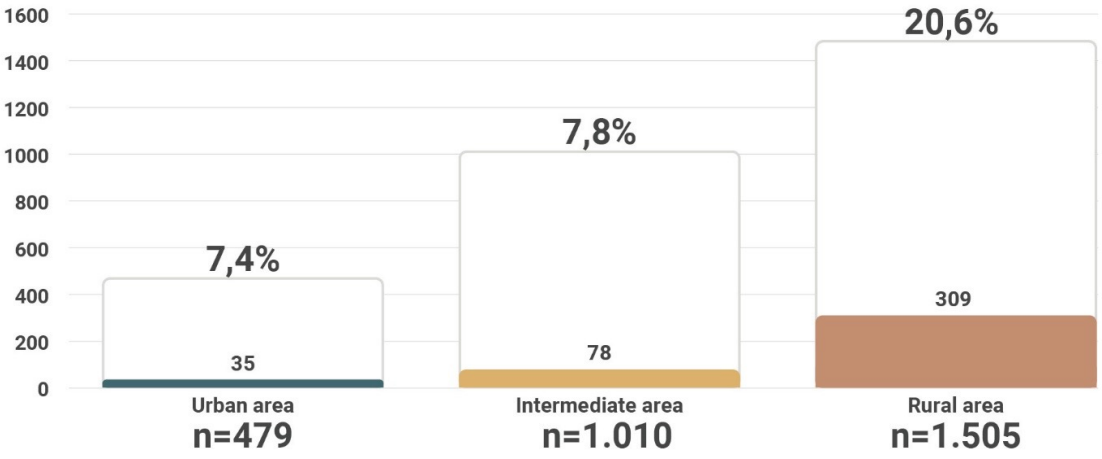

FIGURE 5.30
Share of people living in a nature protected area according to urban-rural typology (urban area: n = 479; intermediate area: n = 1.010; rural area: n = 1.505).

Activities within nature protected areas such as management, various restrictions, and regulations, can have impacts on people's daily lives and work; thereby influencing their QoL. Respondents residing in nature protected areas (422 altogether) were asked about the effects of these activities on their QoL, and they rated the same on a scale from 1 (decreases significantly) to 5 (increases significantly). The majority of respondents indicated that the activities undertaken within nature-protected areas had a neutral or primarily positive impact on their QoL. 40,8% respondents assessed that QoL had stayed the same, while nearly 47,6% were of the opinion that QoL had somehow increased. One fifth of all participants were convinced that QoL had increases a lot. About 11% believed that these activities had somewhat negative impacts on their QoL.

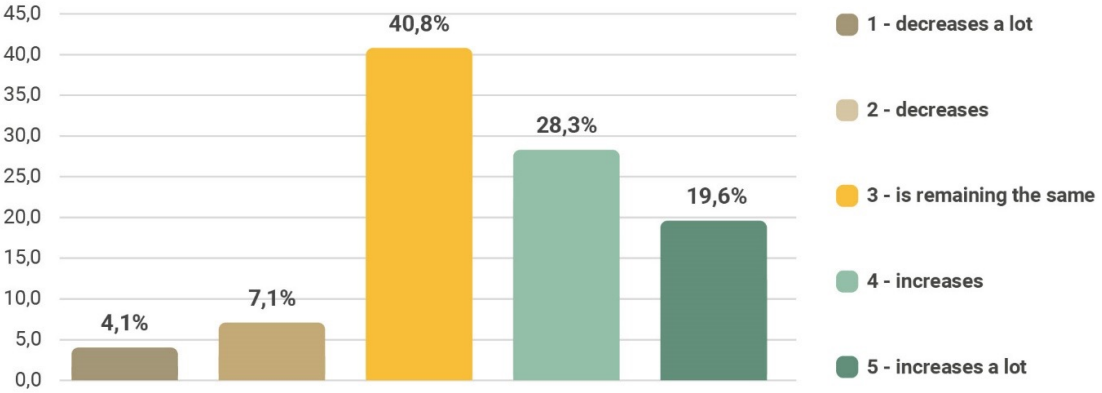

FIGURE 5.31
Activities of nature protected areas influencing QoL (n = 422 – respondents living in a nature protected area)

With regards to urban-rural typology, a consistent trend was observed across all regional types. Respondents generally perceived that the activities within nature-protected areas had a neutral or positive impact on their QoL. In rural areas, approximately 47% of respondents evaluated the impact to be positive, with a grade of 4 or 5. Intermediate areas showed an even higher proportion, with nearly 53% indicating a positive impact. In urban areas, the percentage was slightly lower at 46%. In the case of urban areas, the percentage of people who thought that quality of life had stayed the same was higher (47,5%). On the basis of answers provided it can be argued that in intermediate and rural areas people were mostly convinced that living in nature protection area contributes to their quality of life. The highest score regarding a decrease in QoL was recorded in intermediate areas, 11,7%. In urban areas this score was only 6,4%.

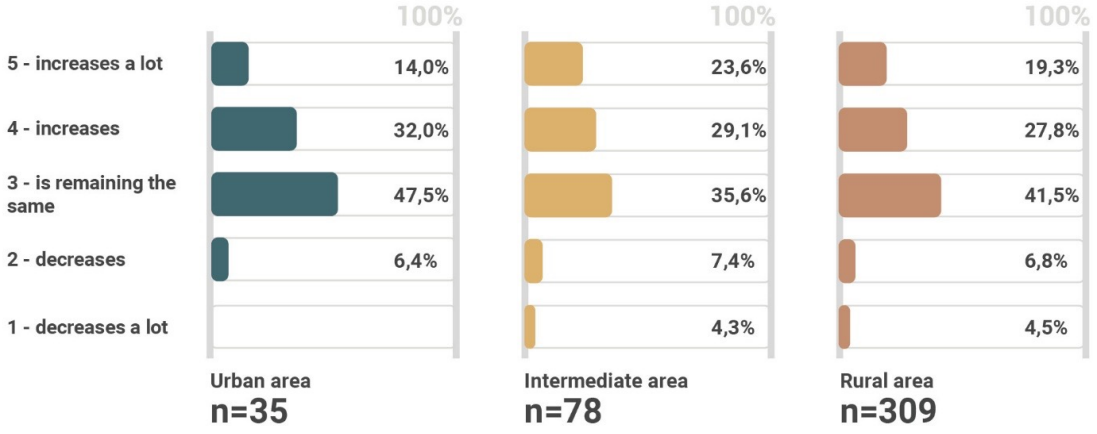

FIGURE 5.32
Activities of nature protected areas influencing QoL according to urban-rural typology (n = 422 – respondents living in a nature protected area; urban area: n = 35; intermediate area: n = 78; rural area: n = 309).

5.4 Infrastructure and services

5.4.1 Satisfaction with infrastructure and services

Infrastructure and services are vital to the functioning of society. They are needed for the provision of everything, from basic needs such as water, food, housing, mobility, as well as culture, sports, leisure, or entertainment. The availability, accessibility and quality of infrastructure and services vary greatly across Alpine countries, regions, and local settings. 2.983 respondents provided an answer. Compared to other topics pertaining to the quality of life in the Alps, the quality of infrastructure and services received lower average scores. On a scale from 1 (extremely dissatisfied) to 5 (extremely satisfied), the respondents rated it on average at 3,3, better only than the quality of governance (2,7), and the same as quality of work and financial security (3,3), and behind social relations (3,6), and the environment (3,6).

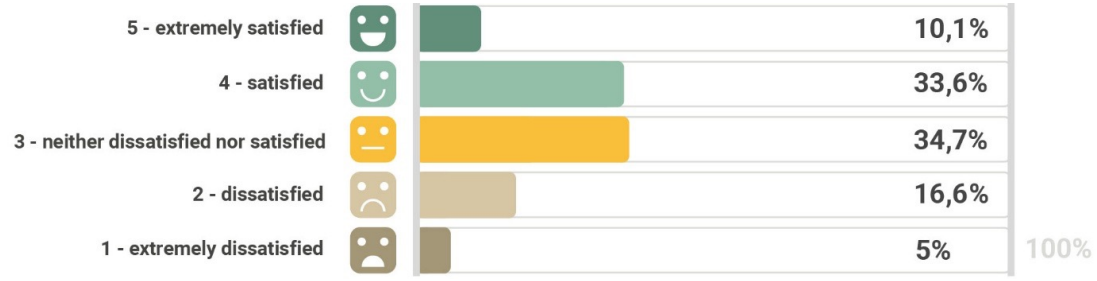

FIGURE 5.33
Satisfaction with infrastructure and services (n = 2.983).

Roughly a third of the respondents evaluated the quality of infrastructure and services as average (almost 35%) or satisfactory (33,6%). Only 10,1% were very satisfied with it, while nearly 17% were dissatisfied. 5% were extremely satisfied with the quality of infrastructure and services. Furthermore, around 30% of respondents (more than 34% in rural, more than 28% in intermediate and more than 22% in urban regions) selected accessibility of infrastructure and services as a factor that would influence quality of life over the next 10 years.

5.4.2 Travel time to infrastructure and services

For a majority of respondents, time spent travelling to a majority of services was a maximum of 15 minutes. Different numerus of respondents was reported depending on the service, with minimum of 2.977 respondents commenting on child-care and maximum of 2.995 respondents on healthcare. Over half of the respondents that estimated the time needed to get to the nearest facility, need maximum 15 minutes to reach grocery shop (applies to more than 85% of respondents), pharmacy (nearly 82%), primary school (nearly 51%), post office (nearly 80%), public library (more than 66%), bank (nearly 72%), healthcare (68%), local famers' market (more than 60%), indoor or outdoor recreational infrastructure (more than 59%), and cultural amenities (more than 54%). Residents of the Alps need more time to travel to specialised shops and elderly care services because only a third of them could reach these two services within 15 minutes. Most respondents living in urban areas needed over an hour to reach elderly care, followed by specialised shops (clothes, furniture, etc.). In rural and intermediate areas, 16 to 30 minutes is needed to reach specialised shops, followed by elderly care, cultural and recreational amenities (such as cultural hall, theatre, cinema, outdoor or indoor sports facilities). For more information, see Figure 5.34 and Table 5.3.

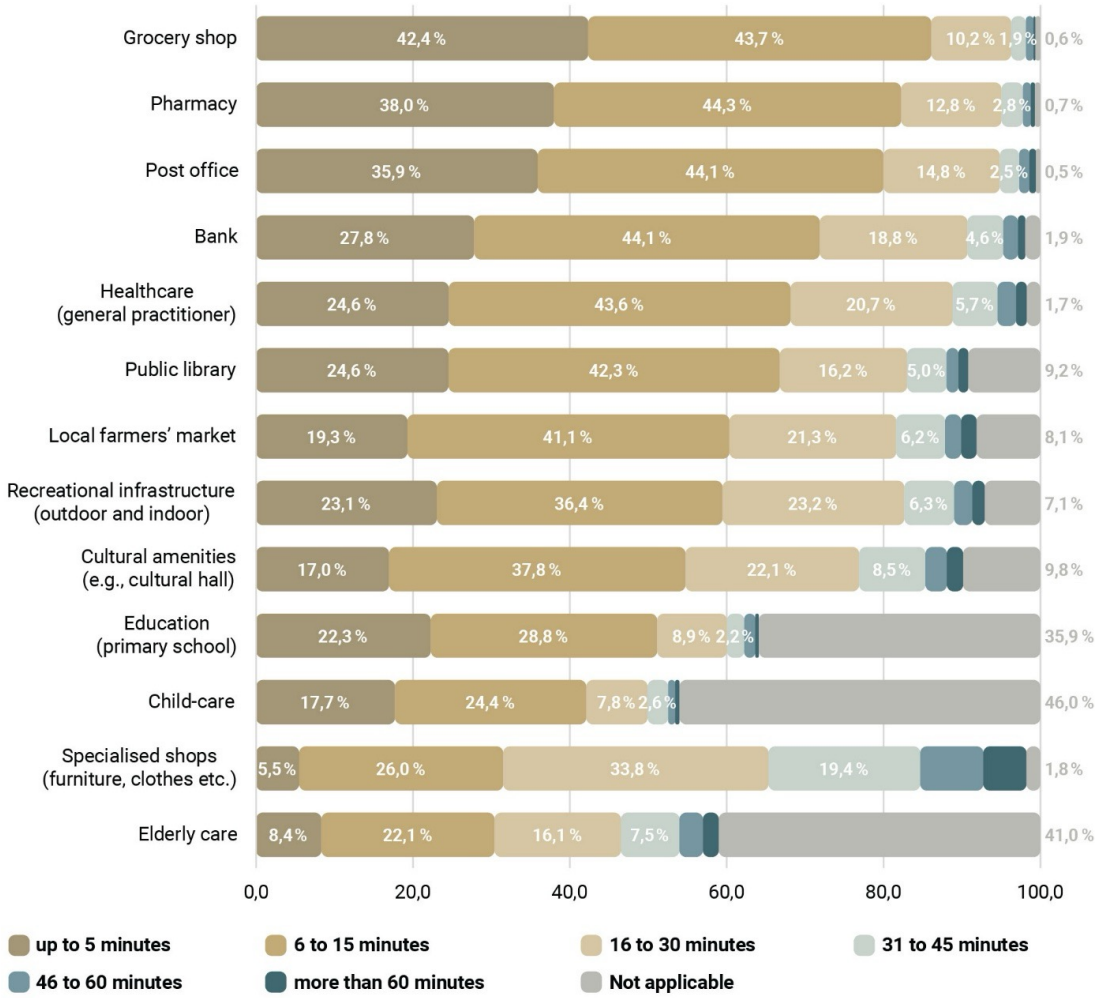

FIGURE 5.34 Travel time to infrastructure and services (grocery shop: n = 2.982; pharmacy: n = 2.986; post office: n = 2.988; bank: n = 2.986; healthcare: n = 2.995; public library: n = 2.981; local farmers' market: n = 2.988; recreational infrastructure: n = 2.986; cultural amenities: n = 2.990; education: n = 2.980; child-care: n = 2.977; specialized shops: n = 2.990; elderly care: n = 2.974).

Services and infrastructure	Urban area	Intermediate area	Rural area
Grocery store	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Pharmacy	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Post office	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Bank	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Healthcare	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Public library	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Local farmer's market	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Recreational infrastructure	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Cultural amenities	16 to 30 minutes	6 to 15 minutes	6 to 15 minutes
Education	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Child-care	6 to 15 minutes	6 to 15 minutes	6 to 15 minutes
Specialised shops	16 to 30 minutes	16 to 30 minutes	16 to 30 minutes
Elderly care	16 to 30 minutes	6 to 15 minutes	16 to 30 minutes

TABLE 5.3
Average travel time to infrastructure and services according to the urban-rural typology.

5.4.3 Satisfaction with accessibility to services

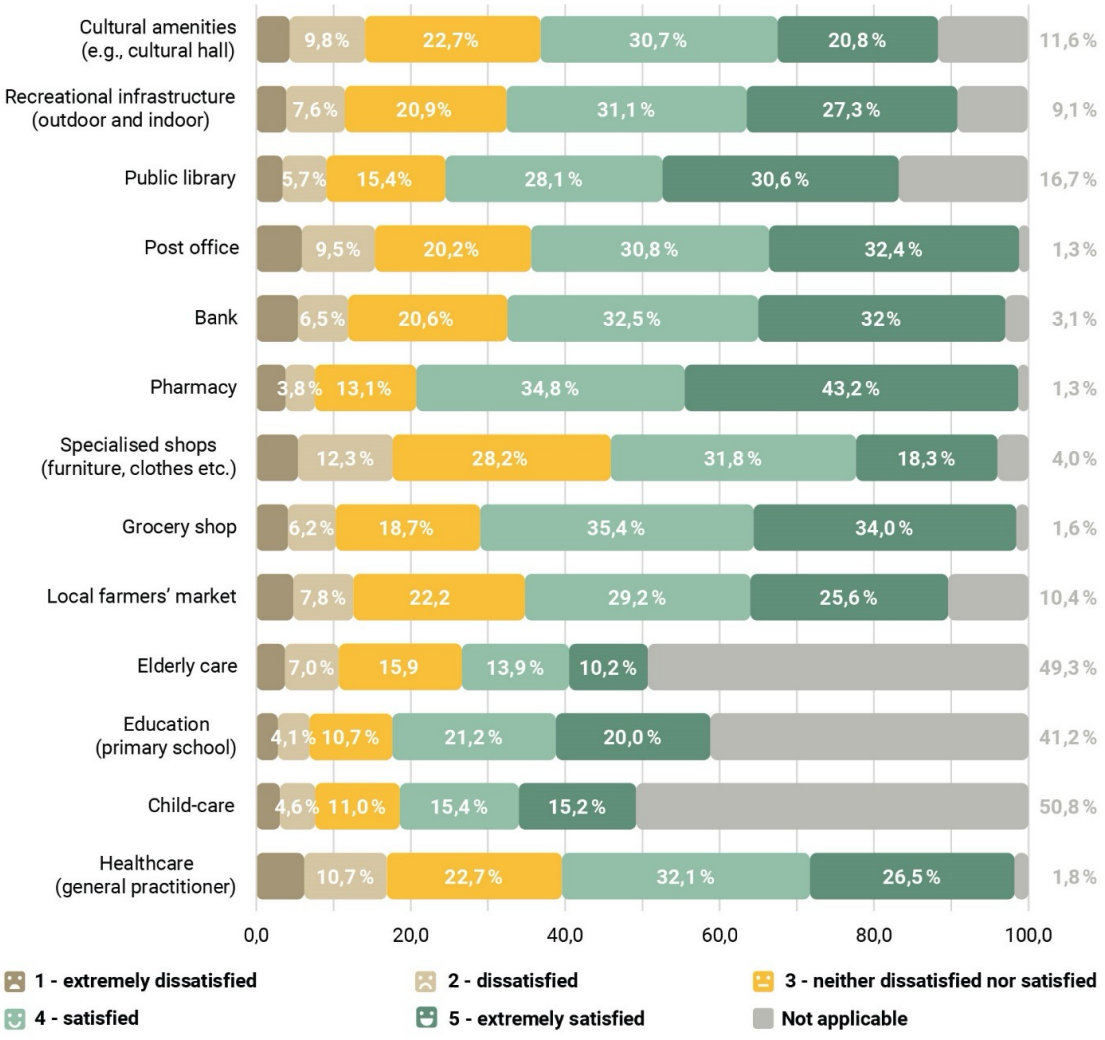

FIGURE 5.35
Satisfaction with the accessibility to services (cultural amenities: n = 2.973; recreational infrastructure: n = 2.975; public library: n = 2.977; post office: n = 2.984; bank: n = 2.980; pharmacy: n = 2.987; specialized shops: n = 2.980; grocery shop: n = 2.981; local farmer's market: n = 2.977; elderly care: n = 2.974; education: n = 2.980; child-care: n = 2.976; healthcare: n = 2.991).

With regards to satisfaction with the accessibility to services, different response rates were again reported: the minimum number of respondents was recorded for cultural amenities (2.973), and the maximum was recorded for pharmacies (2.987). Respondents were most satisfied with accessibility to pharmacies (78,0% satisfied) and to grocery shops (69,4% satisfied), banks (64,5% satisfied), post offices (63,2% satisfied), healthcare (more than 57,6% satisfied), public libraries (more than 58,7% satisfied), and recreational infrastructure (58,4% satisfied). Slightly more than half of the respondents were also rather satisfied with accessibility to local farmers' markets and cultural amenities. Nearly half also reported satisfaction with accessibility to specialised shops. For services such as elderly care, education (primary school), and child-care, the most selected answer was "not applicable" (with a share of between 40% and 50%). Respondents tended to be rather satisfied with accessibility to education and child-care. Elderly care was the only service where a majority of respondents were neither dissatisfied nor satisfied.

Table 5.4 shows the average satisfaction with the accessibility to services according to urban-rural typology. The biggest differences in the scores recorded are for the service "specialized shops" (urban 3,8 and rural 3,3) and elderly care (urban 3,6 and rural 3,3); other differences were negligible. A majority of respondents were satisfied with the services (score 4), except for elderly care in intermediate and rural areas where the score was 3 – neither dissatisfied nor satisfied. The same score was received for specialized shops in rural areas; Alpine residents were neither dissatisfied nor satisfied.

Services and infrastructure	Urban area	Intermediate area	Rural area
Healthcare	3,7	3,6	3,7
Child-care	3,8	3,6	3,7
Education	3,8	3,8	3,9
Elderly care	3,6	3,4	3,3
Local farmers' market	3,9	3,8	3,6
Grocery shop	4,0	4,0	3,8
Specialised shops	3,8	3,5	3,3
Pharmacy	4,2	4,2	4,0
Bank	3,9	3,9	3,7
Post office	3,8	3,8	3,7
Public library	4,0	4,0	3,9
Recreational infrastructure	3,9	3,8	3,7
Cultural amenities	3,8	3,6	3,5

TABLE 5.4 Satisfaction with the accessibility to services – average.

5.4.4 Means of transport in the Alps

Cars are the most frequently used mode of transport in the Alps, with 54,3% of respondents using them for daily errands. With regards to different means of transport, a larger gap can be detected taking into account urban-rural typology: the percentage share for using a car is only 34,2% in urban areas, but 41,0% in intermediate, and 69,5% in rural areas. The second choice of means of transport is a sustainable choice (42,9%), with 22,0% walking, 16,1% cycling and 4,8% taking buses. The sustainable mobility scores were significantly higher in intermediate (55,9%) and urban areas (65,3 %). In rural areas, only 27,7% of respondents walk, cycle, or take a bus to undertake their daily errands. The lower percentage in rural areas is due to the poorer offer and frequency of public transport. Among respondents who selected "other", the most commonly listed response was a combination of various transportation means, such as conducting daily errands by car,

on foot, and using public transport. A few individuals reported using scooters, mopeds, or car-sharing, while commuting by taxi and using a wheelchair were each mentioned by only one individual.

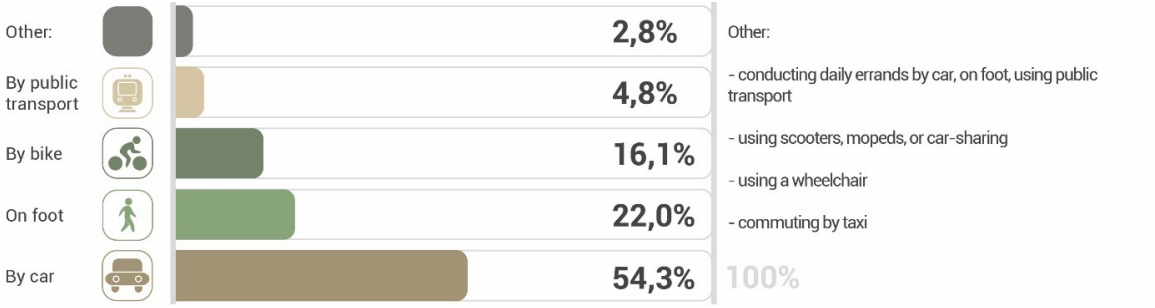

FIGURE 5.36
Means of transport in the Alps (n = 2.995).

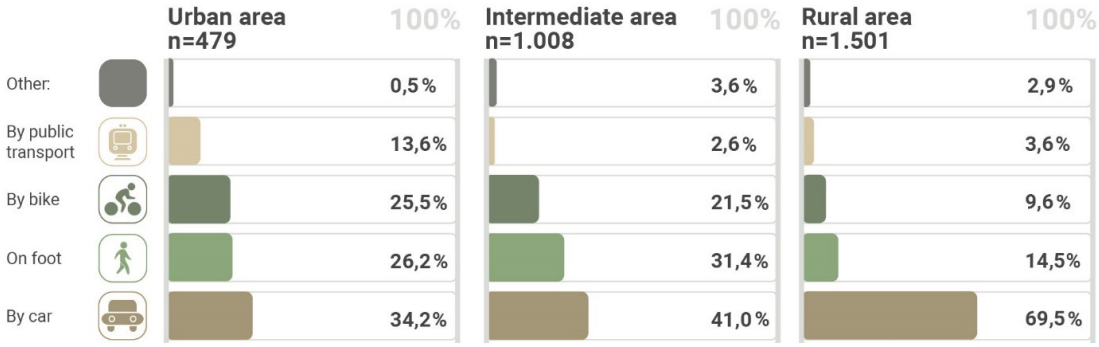

FIGURE 5.37
Means of transport in the Alps according to urban-rural typology (urban area: n = 479; intermediate area: n = 1.008; rural area: n = 1.501).

5.4.5 Use of, and satisfaction with, public transport

The percentage for those using public transport for daily errands was only 4,8%, and ranged from 2,6% in intermediate areas to 3,6% in rural areas and 13,6% in towns and cities. In general, 28% of respondents claimed to never use public transport, and another 29% stated that they used it less than once a month. Only 17% used it more than once a week.

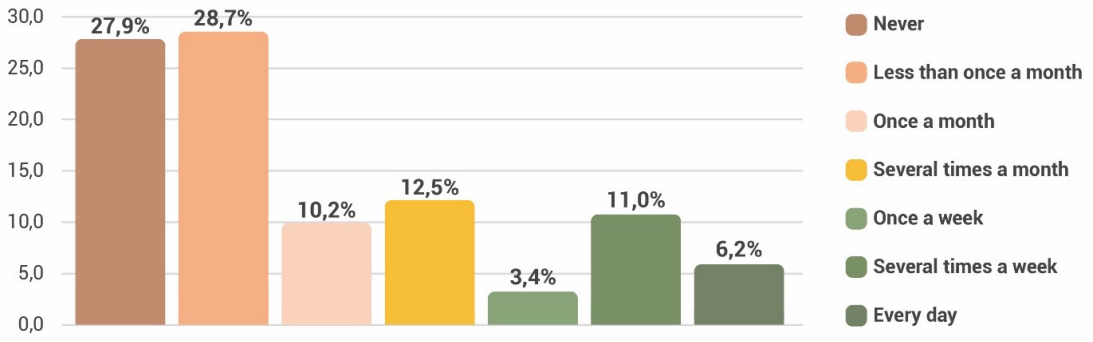

FIGURE 5.38
Use of public transport (n = 2.995).

For all respondents who used public transport at least once a month, an additional question relating to their satisfaction with public transport was asked in the online questionnaire. Only 42% of all respondents answered to the question on how satisfied they were with public transport in the area they lived in. Of them, 15,5% were extremely satisfied, and another 32,0% were satisfied; a cumulative total of 47,5%. Approximately one third of respondents were undecided, and 22,4% were not satisfied at all.

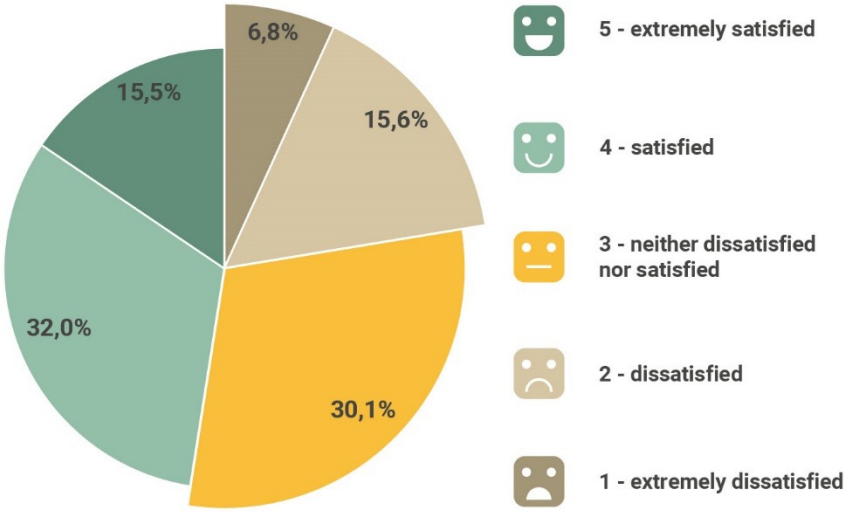

FIGURE 5.39
Satisfaction with public transport (n = 1.281).

58,7% of those living in urban areas, 49,0% of those in intermediate, and 39,1% of those in rural areas were satisfied with public transport. This shows that residents of rural areas were the least satisfied (28,5%). In urban areas this percentage accounted for only 14,7%.

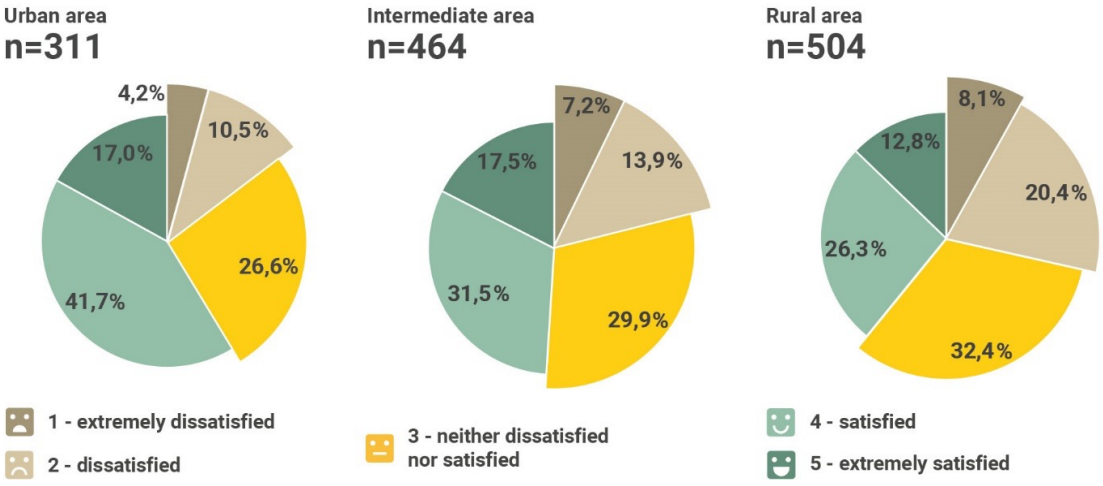

FIGURE 5.40
Satisfaction with public transport considering urban-rural typology (urban area: n = 311; intermediate area: n = 464; rural area: n = 504).

5.4.6 Housing

Type of housing

In total, 2.987 persons responded to the questions about the types of housing they lived in. Half of those lived in rural areas (50,2%), a third in intermediate (33,4%) and the rest (16,0%) in urban areas. In total, 44,3% lived in an apartment, 39,9% in a single-family house, 7,2% in an attached house, and 4,6% in a farmstead. These shares, however, were significantly different between the different types of areas. In cities, more than 65% of respondents lived in apartments, 21,6% in single-family houses, and 7,0% in an attached house. Quite similar shares were observed for intermediate areas (58,2%; 27,8%; and 8,3%). The situation was most different in rural areas, where 64,0% lived in a single-family house, 28,5% in an apartment, and 6,6% in an attached house. The share of people living in farmsteads was 7,3% in rural, 3,3% in urban and 1,0% in intermediate areas.

5.4.7 Housing

Type of housing

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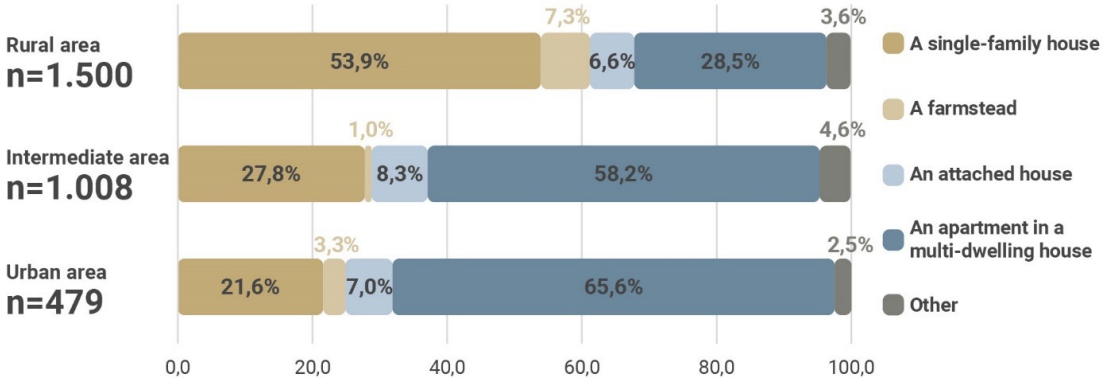

FIGURE 5.41 Type of housing according to urban-rural typology (rural area: n = 1.500; intermediate area: n = 1.008; urban area: n = 479).

Respondents who selected "other" as an answer provided various housing types. The most common was a condominium, followed by a multi-generation/multi-family house, and an attached house. A few respondents also mentioned living in a studio, a hotel, a villa, on a farm, in a holiday house, a rental house, and a tourist guest house. Options listed by only one individual included an Alpine hut, social housing, a weekend house, staff accommodation, a guesthouse, co-op housing, a former mountain school, B&B, and a community building.

Satisfaction with housing situation

The majority of people living in the Alps were satisfied with their housing situation and 2.990 respondents provided an answer to this question. 70,8% of all respondents expressed satisfaction with their housing situation, while only 10,1% stated that they were dissatisfied. Most satisfied were those living in rural areas (44% extremely satisfied; and 32% satisfied), followed by those in intermediate (26%; 40%), and urban areas (22%; 43%). The combined share of dissatisfied and extremely dissatisfied was 13% in urban, 12% in intermediate, and 9% in rural areas.

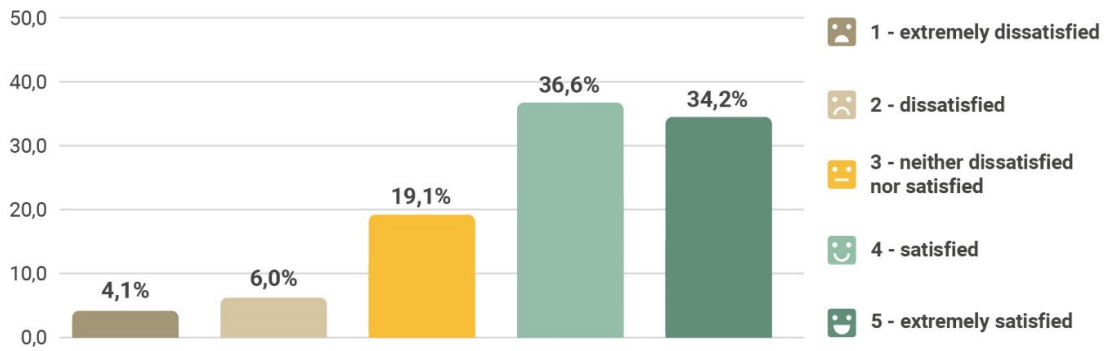

FIGURE 5.42 Satisfaction with housing situation (n = 2.990).

Ownership of housing units

Owning a housing or residential unit where either the respondents or their acquaintances reside can be advantageous in terms of ensuring housing security. Homeownership translates to reduced reliance on landlords and can enhance financial and life stability. The respondents were asked the question: "Do you or one of your household members own the housing unit you live in?" The results of the survey indicated that nearly 70% of the 2.992 respondents were homeowners.

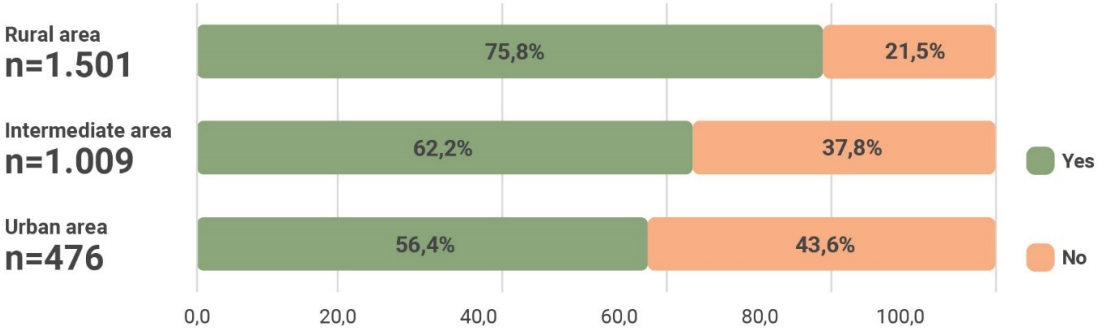

FIGURE 5.43 Ownership of a housing unit combined according to urban-rural typology (rural area: n = 1.501; intermediate area: n = 1.009; urban area: n = 476).

According to urban-rural typology, in all regional types, a majority of respondents answered affirmatively to the question, however, the largest percentage of ownership was detected in rural area (75,8% of all answers). The ownership rate was also higher in intermediate regions, where 62,2% of respondents owned their housing units. In urban areas, the share was 56,4%. As such, homeownership is more prevalent in rural settings compared to urban areas.

Ownership of a second home

Some individuals may own multiple housing units or real estate properties, which can be indicative of their possessing better financial security or a stronger financial background. However, owning multiple residences may also result from other factors, such as inheritance. Those who possess multiple residences might employ their secondary housing units for different purposes, including personal use or rental. Respondents were asked about owning a secondary unit and, where they did, the purposes for which they were used. Response options included personal leisure use, long-term lease, short-term tourism rentals, and "other" options. 2.990 respondents provided an answer. 75,0% of respondents indicated that they did not own a secondary residence. Amongst those who did, the most common purposes noted were personal leisure use (9,7% of all respondents) and long-term lease (9,0% of all respondents). 3,5% reported using a secondary housing unit for short-term tourism rentals, and nearly 2,7% mentioned other reasons.

With the category of "other" use, respondents provided various reasons including housing for family members, owning a housing unit currently undergoing renovation or construction, inheritance, owning another home (in a city or abroad), an empty building,

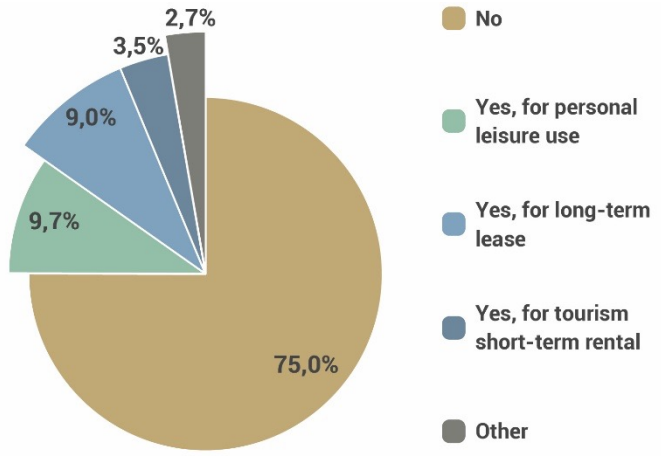

FIGURE 5.44 Ownership of secondary housing units (n = 2.990).

an Alpine hut, and a facility for agricultural use. Less common options included a wine cellar, a maintenance facility, a housing unit with guestrooms, an old house, a housing unit for professional use or timeshare, and owning multiple secondary housing units (e.g. for rental and leisure use).

With reference to urban-rural typology, the predominant response across all regions was that respondents did not own secondary housing units. Consequently, the proportion of individuals with a secondary housing unit across different regions was fairly consistent with the general picture. In urban areas approximately 22% of respondents had secondary housing units, of which a majority were either leased out long-term (42,8%) or used personally (37,3%). In intermediate areas 249 respondents owned secondary houses, and in rural areas 375. The highest share for owning a housing unit to rent it out short-term for tourism purposes was recorded for rural areas (12,7%), and the lowest in urban areas (8,3%). This might be due to the fact that skiing areas are predominantly rural in their nature and the fact that larger, more touristic cities are located outside of the Alpine convention perimeter.

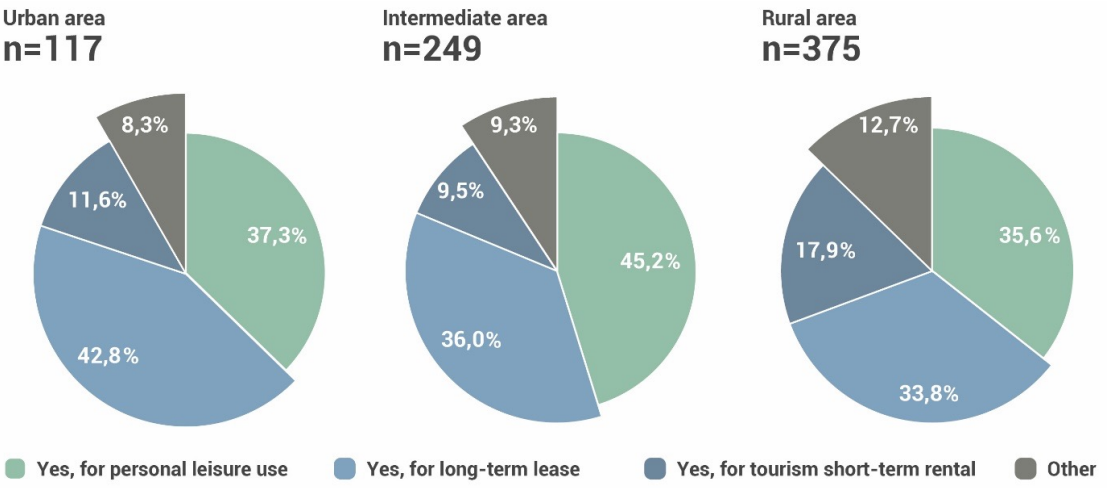

FIGURE 5.45
Ownership of secondary housing units with reference to urban-rural typology (urban area: n = 117; intermediate area: n = 249; rural area: n = 375).

Satisfaction with the availability of affordable housing

In addition to the question on satisfaction with the housing, respondents were asked as to the availability of affordable housing. 2.951 respondents answered this question. A majority expressed dissatisfaction, with one third (30,3%) being extremely dissatisfied and 25,9% being dissatisfied. Altogether, 56,2% of respondents were somehow dissatisfied. Only 5,1% of respondents were very satisfied with the affordability of housing in the areas in which they lived. In total, only around 15% of all respondents were satisfied or extremely satisfied with their access to affordable housing.

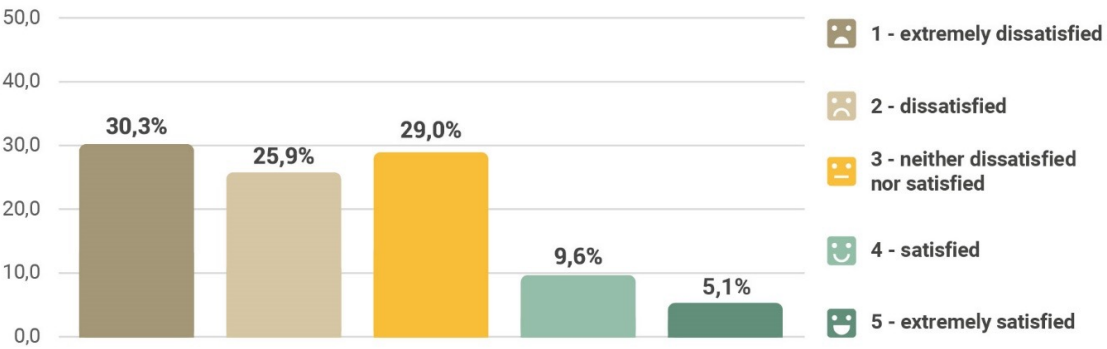

FIGURE 5.46
Satisfaction with the availability of affordable housing (n = 2.951).

In urban areas nearly 54% were dissatisfied, in intermediate areas more than 57% were dissatisfied (13% satisfied), and in rural areas nearly 55% were dissatisfied. This indicates a great need for the better provision of more affordable housing across the whole Alpine area.

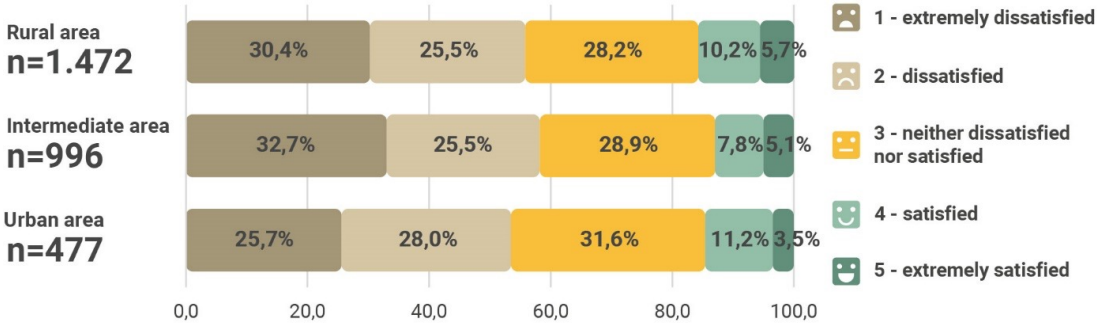

FIGURE 5.47
Satisfaction with the availability of affordable housing according to urban-rural typology (rural area: n = 1.472; intermediate area: n = 996; urban area: n = 477).

Opinions on the (un)availability of affordable housing

Over 2.000 comments were received regarding affordable housing supply, with only around one tenth of the same being positive, stating there was well priced and, in general, a good supply of affordable housing. The vast majority of comments related to issues regarding high or rising prices (half of participants), followed by limited or insufficient offers (one fifth), and there being a lack of incentives for specific groups, such as the elderly, youth, locals, and foreigners (one tenth of all participants). Also mentioned were issues of secondary homes and tourism rentals, the quality and age of housing, empty buildings, and a lack of sufficient housing policies.

FIGURE 5.48
Opinions on the (un)availability of affordable housing.

Considering urban-rural typology, in all of the types of regions, respondents highlighted prominent issues such as high housing prices, limited housing offers, too expensive housing, and a lack of affordable housing. Other concerns acknowledged included no housing being offered, rising housing prices, poor quality housing, unfriendly housing situations for youth and insufficient housing policies. Respondents from urban regions additionally pointed out issues such as high rents, high land prices, and unfavourable loan conditions. In contrast, respondents from intermediate and rural regions listed concerns such as unfriendly housing situations for locals, challenges related to secondary residences, and an excess of tourism rentals (e.g. AirB&Bs).

FIGURE 5.49a—c
Opinions on the (un)availability of affordable housing.

5.5 Work and financial security

5.5.1 Satisfaction with work and financial security

Respondents were requested to assess their satisfaction with work and financial security using a scale that ranged from 1 (extremely dissatisfied) to 5 (extremely satisfied). Overall, respondents demonstrated a considerable level of satisfaction. Approximately 35% expressed satisfaction, while another 13% indicated they were extremely satisfied. Nearly 30% assigned a rating of 3, signifying a neutral stance, while roughly 22% expressed dissatisfaction, with some even reporting extreme dissatisfaction concerning their work and financial security.

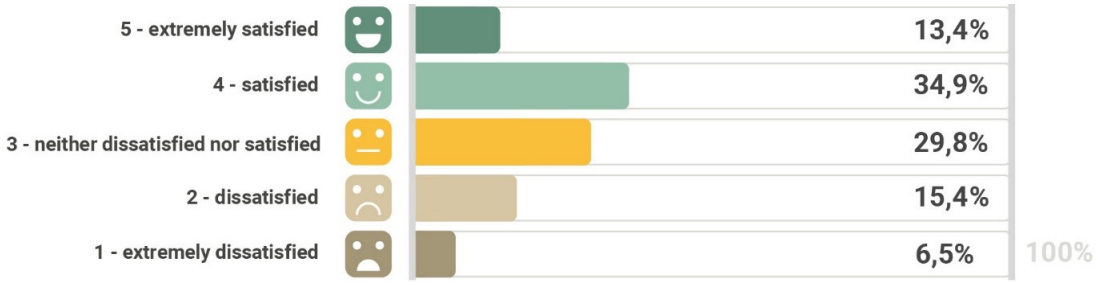

FIGURE 5.50 Satisfaction with work and financial security (n = 2.986).

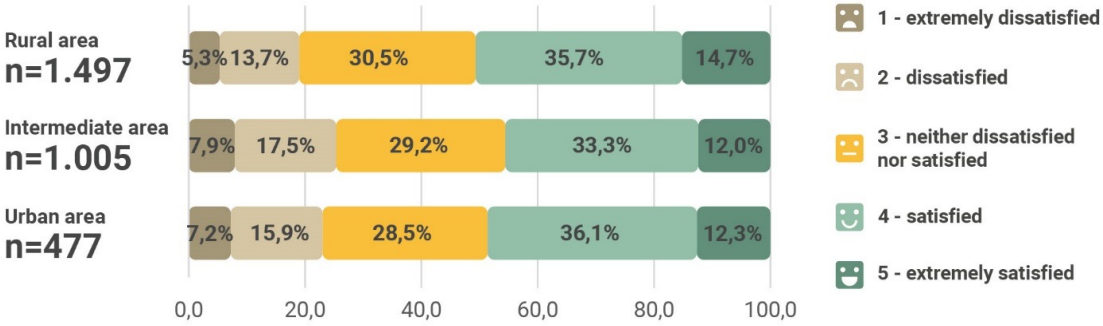

FIGURE 5.51 Satisfaction with work and financial security according to urban-rural typology (rural area: n = 1.497; intermediate area: n = 1.005; urban area: n = 477).

Considering urban-rural typology, the answers did not diverge much with regards to satisfaction with work and financial security. The most satisfied altogether were, again, people in rural areas (50,4%), followed by residents in urban areas (48,4%) and then people living in the intermediate areas (53,2%). The highest percentage of dissatisfied people was in intermediate areas (25,4%) whilst the lowest recorded percentage was in rural areas (29,0%). Approximately one third of population was undecided regardless of the type of the area in which they lived.

5.5.2 Having a paid job

Being employed typically enhances financial security and tends to have a positive impact on people's QoL. Respondents were asked about their current employment status. 2.967

FIGURE 5.52 Currently having a job considering urban-rural typology (rural area: n = 1.487; intermediate area: n = 1.005; urban area: n = 475).

respondents answered this question. A significant majority, over 75%, affirmed that they had a paid job at the moment of answering the question. With regards to urban-rural typology, there were no substantial differences in the percentage of individuals holding jobs across the different types of regions. However, urban regions exhibited the highest share of individuals employed (77,9%), while intermediate areas had a slightly lower percentage (75,1%). Rural regions recorded an employment rate (amongst respondents) of 77,3%.

5.5.3 Satisfaction with work conditions

Satisfaction with work is related to a range of working conditions as well as the opportunities that employers extend to their workforces. More favourable working conditions, such as the duration of parental leave, telework options, and training opportunities significantly contribute to greater satisfaction and, in turn, lead to higher overall satisfaction and enhanced quality of life. Respondents were requested to rate their satisfaction levels using a scale which ranged from 1 (extremely dissatisfied) to 5 (extremely satisfied) for the following work-related aspects: salary, telework possibilities, training opportunities, the number of vacation days, duration of parental leave, and work-life balance management. If a particular working condition was irrelevant to them, they had the option to select "not applicable". The number of respondents was lower than other aspects of this report because not all of the respondents work; altogether, the lowest number of responses to a work-related was 2.261 for parental-leave duration, and the highest was 2.271 for the aspect related to salary.

The respondents highlighted overall satisfaction with their working conditions, with average ratings falling between 3,3 (neither dissatisfied nor satisfied) and 3,8 (satisfied). This suggests that those residing in Alpine regions tend to be somehow satisfied with their workplace circumstances. The working condition that received the highest rating pertained to the number of vacation days, with a score of nearly 3,8. Conversely, the lowest-rated work condition was parental-leave duration, with an average rating just below 3,4; Alpine residents are neither satisfied nor satisfied in this regard. Following closely, work-life balance management received the second-highest rating at around 3,5, while possibilities for training received a similar score of just below 3,5. Satisfaction with salary averaged 3,4, which aligned with the score for possibilities for telework (a scenario with regards to which the Alpine population is neither dissatisfied nor satisfied). In terms of percentages, the highest satisfactions were: number of vacation days (62,4%), work-life balance management (53,7%), and salary (50,6%).

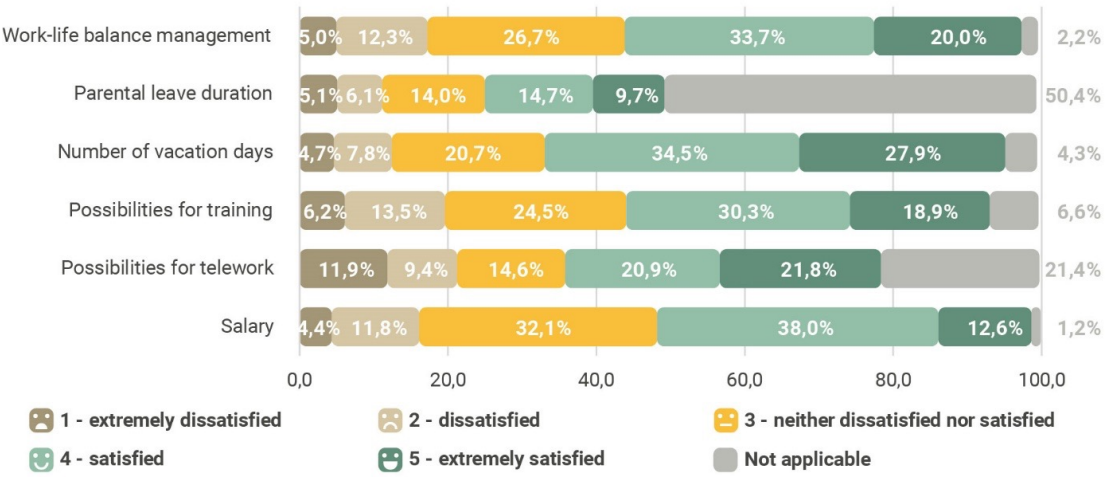

FIGURE 5.53 Satisfaction with work conditions (salary: n = 2.271; possibilities for telework: n = 2.270; possibilities for training: n = 2.266; number of vacation days: n = 2.262; parental leave duration: n = 2.261; work-life balance management: n = 2.264).

Work condition	Urban area	Intermediate area	Rural area
Salary	3,3	3,4	3,5
Possibilities for telework	3,4	3,5	3,3
Possibilities for training	3,4	3,4	3,5
Number of vacation days	3,8	3,8	3,7
Parental leave duration	3,3	3,4	3,4
Work-life balance management	3,5	4,5	3,5

TABLE 5.5 Average satisfaction with work conditions as grouped according to urban-rural typology.

5.5.4 Perceptions of household incomes with regards to comfort of living

When asked about their perceptions of their household incomes, respondents were presented with the following options: living comfortably on present income, coping on present income, finding it difficult on present income, and finding it very difficult on present income. The question was derived from the European Social Survey and was answered by 2.991 people.

Overall, respondents appeared to be satisfied with their incomes, with approximately 84% expressing that they were either living comfortably on their present income or at least coping. The most prevalent response was "coping on present income", which was chosen by 45% of respondents, and this was closely followed by "living comfortably on present income", selected by 39%. About 13% of respondents admitted to finding it difficult on their present incomes, and 3% indicated they were finding it very difficult. From the answers provided it can be concluded that only two fifths of Alpine residents live comfortably on their present incomes while the rest need to plan more carefully how they spend their money to fulfil their daily needs.

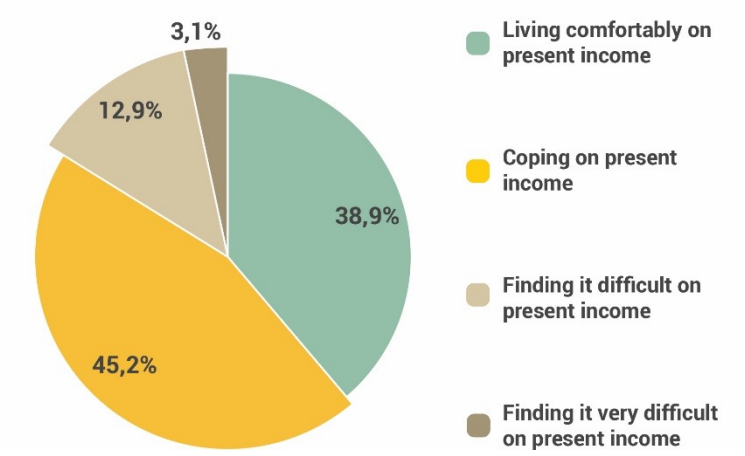

FIGURE 5.54 Perceptions of household income with regard to comfort of living (n = 2.991).

When examining responses based on urban-rural typology, the most frequently selected answer across all regions was "coping on present income". In rural regions, this choice was made by 46,0% of respondents, followed closely by the intermediate regions with 45,6%, and urban areas with 41,7%. The second most commonly chosen response in all regional types was "living comfortably". Approximately 40% of respondents from urban and rural areas selected this option, with 38% of those from intermediate regions also choosing this option.

The response "finding it very difficult on present income" was consistently the least selected answer across all areas. In rural areas, 3% reported such financial difficulty, while in urban areas a share of 4% was recorded, and in intermediate regions less than

3%. These people are the ones who can be statistically considered to be "people at risk of poverty". Combined with the answer "finding it difficult on present income" most of these live in urban areas (with 18,7% being almost one fifth of population), while the lowest share was in rural areas and recorded a percentage of 14,7%. Respondents from rural regions expressed the highest satisfaction with their incomes with 85,3% reporting that they at least coped on their present incomes.

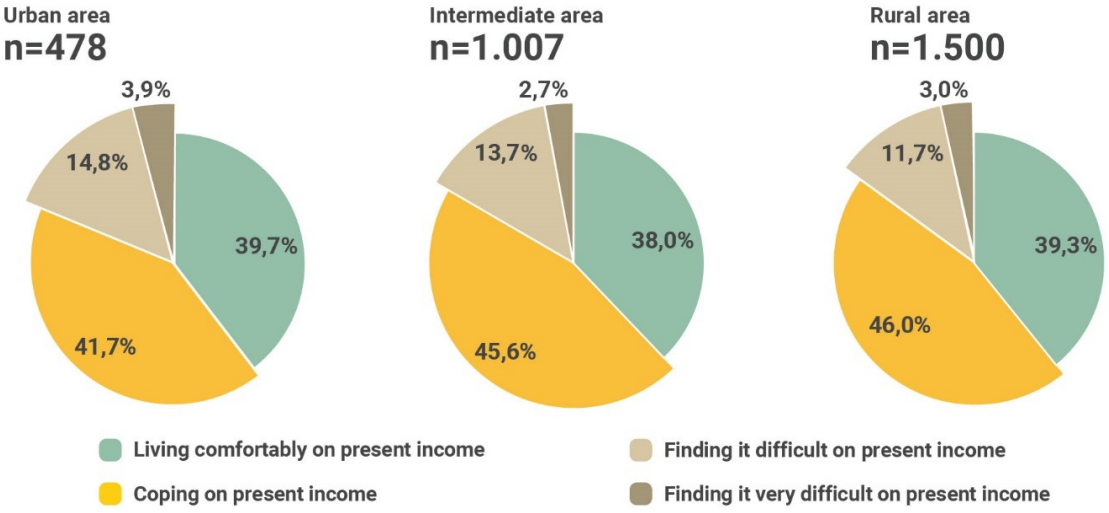

FIGURE 5.55 Perceptions of household incomes with regard to comfort of living (presented with reference to urban-rural typology) (urban area: n = 478; intermediate area: n = 1.007; rural area: n = 1.500).

5.6 Social relations

5.6.1 Satisfaction with social relations

When asked to rate their satisfaction with social relations on a scale ranging from 1 (extremely dissatisfied) to 5 (extremely satisfied), respondents showed rather high levels of satisfaction. In general, social relations ranked as the second-highest rated aspect of quality of life, following closely behind the environment. Altogether 2.982 respondents answered this question. More than 85% of respondents indicated a satisfaction level of grade 3 or higher. Notably, the most frequently selected response was grade 4. This was chosen by 38% of respondents and indicates a significant degree of satisfaction. Moreover, nearly 20% expressed themselves to be extremely satisfied with this aspect of their lives. Approximately 28% selected grade 3 and were thus undecided about their score, while only around 14% reported a degree of dissatisfaction.

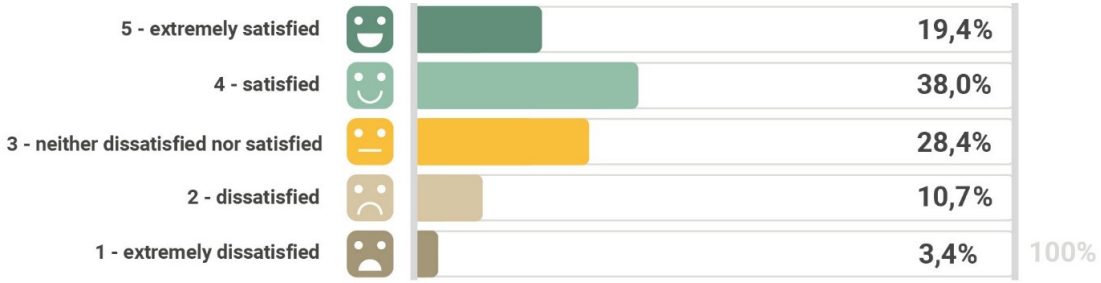

FIGURE 5.56 Satisfaction with social relations (n = 2.982).

Taking into account urban-rural typology, the most satisfied with social relations were those in rural regions, with the share of almost 60% of the respondents from those regions expressing satisfaction. This share was slightly lower in intermediate regions, where satisfaction was reported by more than 56% of the respondents. In urban regions, this share was lowest, however, still more than 52% of the respondents expressed satisfaction.

The share of those reporting dissatisfaction with this aspect of QoL was similar in urban and intermediate areas (more than 15%), while the lowest share was observed in rural regions (slightly above 13%).

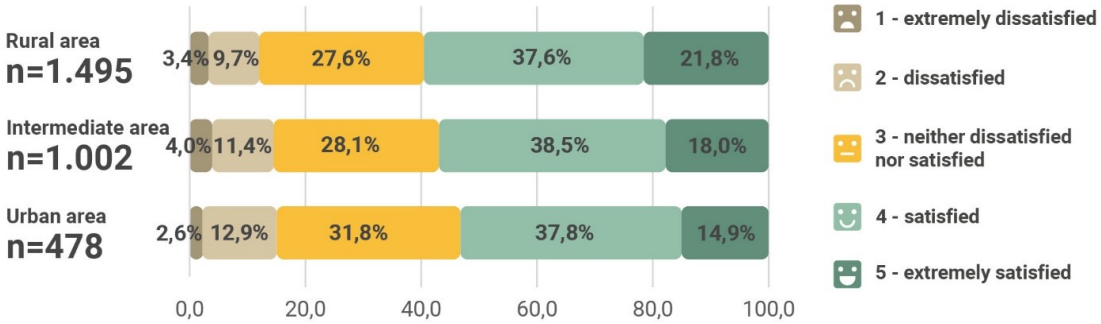

FIGURE 5.57 Satisfaction with social relations according to urban-rural typology (rural area: n = 1.495; intermediate area: n = 1.002; urban area: n = 478).

5.6.2 Frequency of social meetings

Frequency of social meetings plays a vital role in shaping people's social life, expanding their social networks, and ultimately contributes positively to their QoL as well as their overall life satisfaction. Respondents were asked how often they socially meet friends, relatives, and colleagues. They could choose between options: never, less than once a month, once a month, several times a month, once a week, several times a week, and every day. This question was adopted from the European Social Survey. 2.995 respondents answered it.

47,5% of respondents met their friends, relatives or colleagues at least once per week; of which 5,7% stated that this happened every day, 24,0% several times a week, and once a week for 17,8%. The absolutely highest share of respondents chose the answer "several times a month"; 28,4%. No social contact was recorded at 1,5%, and very little social contract, 22,7%.

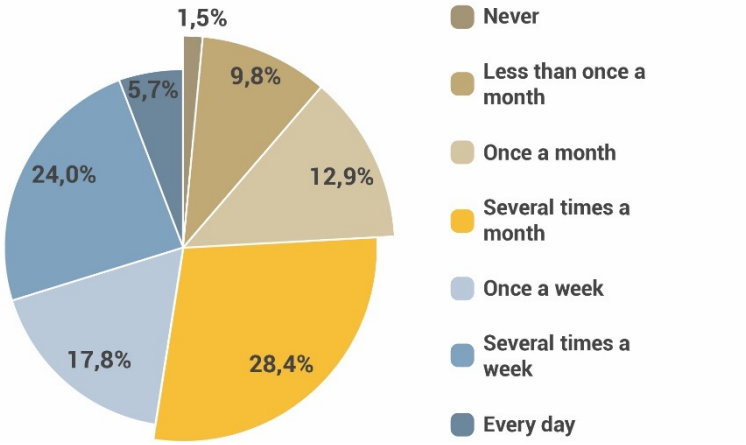

FIGURE 5.58 Frequency of social meetings (n = 2.995).

Taking into account urban-rural typology, the most selected answer, "meeting several times a month", remained consistent across all regional types, with shares ranging between 27,5% and 28,8%. The second most chosen option, "meeting several times a week", showed slight variations. In urban areas, nearly 22% opted for this choice, while in intermediate areas, it increased to almost 26%, and in rural areas, it was approximately 24%. The third most common response, "meeting once a week", was relatively stable across areas. Urban and rural areas each had nearly 17% of respondents selecting this option, whereas the share was higher in intermediate areas; almost 20%. In terms of the percentage of those selecting "meeting every day", the share was highest in intermediate areas, at more than 6%, whereas in rural areas, it was just below 6%, and in urban areas, it

was slightly over 4%. It can be concluded that the loneliest are people in urban areas with 15% selecting answers "less than once a month" or "never", while in intermediate areas this percentage accounted for 9,8%, and in rural areas, 11,2%.

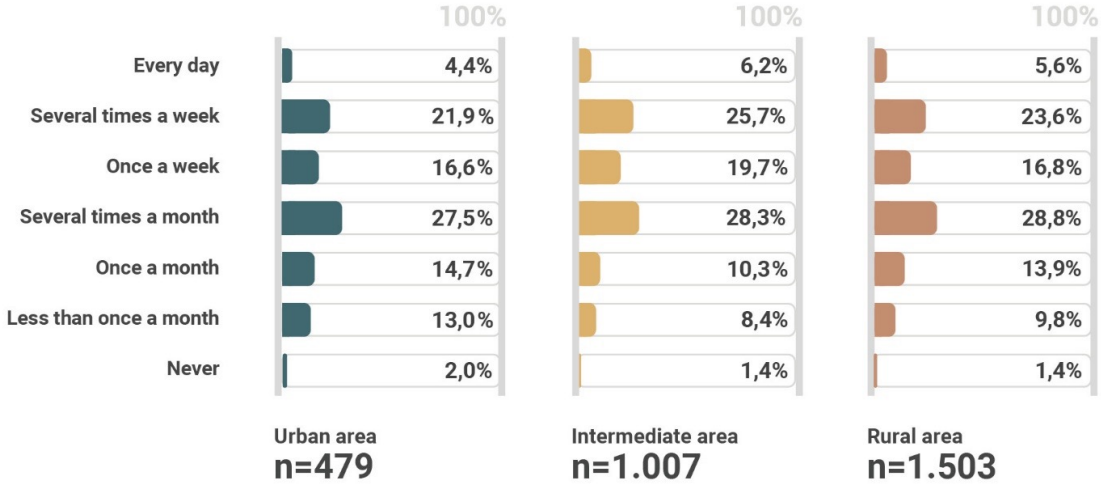

FIGURE 5.59 Frequency of social meetings as per urban-rural typology (urban area: n = 479; intermediate area: n = 1.007; rural area: n = 1.503).

5.7 Governance

5.7.1 Satisfaction with governance

When asked to rate their satisfaction with social relations on a scale ranging from 1 (extremely dissatisfied) to 5 (extremely satisfied), respondents showed rather high levels of satisfaction. In general, social relations ranked as the second-highest rated aspect of quality of life, following closely behind the environment. Altogether 2.982 respondents answered this question. More than 85% of respondents indicated a satisfaction level of grade 3 or higher. Notably, the most frequently selected response was grade 4. This was chosen by 38% of respondents and indicates a significant degree of satisfaction. Moreover, nearly 20% expressed themselves to be extremely satisfied with this aspect of their lives. Approximately 28% selected grade 3 and were thus undecided about their score, while only around 14% reported a degree of dissatisfaction.

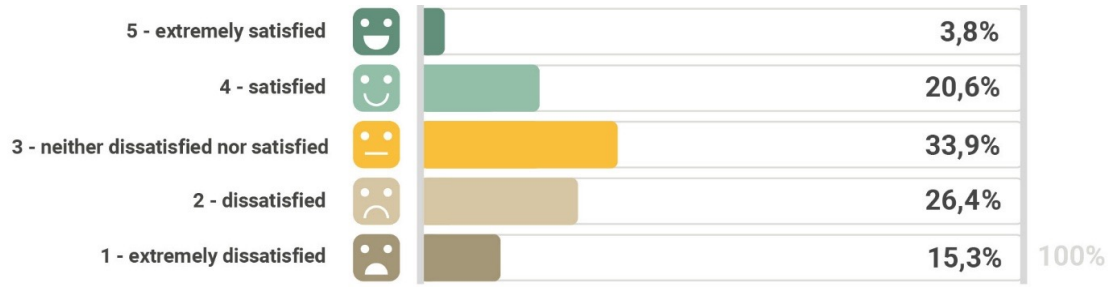

FIGURE 5.60 Satisfaction with governance (n = 2.983).

When considering urban-rural typology, the most satisfied with the aspect of governance are those in urban regions (more than 30% of the respondents reporting satisfaction), while the level of satisfaction is lower in rural and intermediate regions (around 23% in both areas). The level of dissatisfaction with governance is lowest in urban regions (slightly above 31% reporting dissatisfaction), while this share is higher in rural and intermediate regions (around 43% in rural area and slightly under 45% in intermediate area).

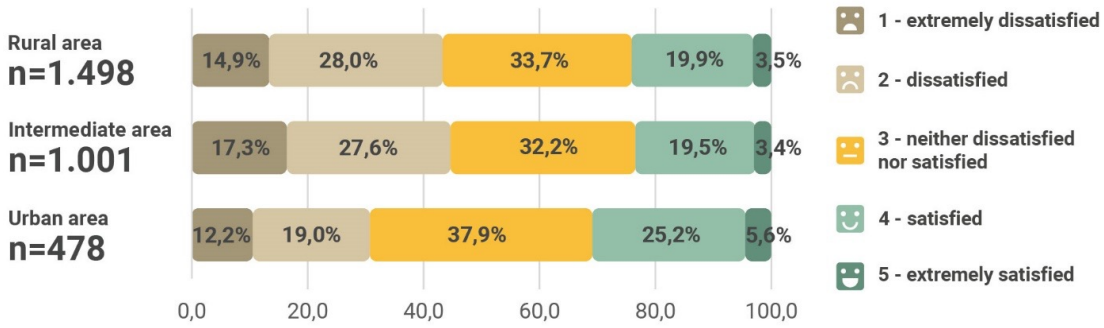

FIGURE 5.61 Satisfaction with governance according to urban-rural typology (rural area: n = 1.498; intermediate area: n = 1.001; urban area: n = 478).

5.8 Strengths and weaknesses of living in the Alps

Living in the Alps has both favourable and unfavourable aspects which can either enhance or detract from QoL. To further explore these topics, respondents were invited to identify the three most significant strengths of living in the Alps that positively impact their QoL, as well as the three most relevant weaknesses of living in the Alps which may impede their having a higher quality of life.

5.8.1 Biggest strengths of living in the Alps

The most prominent and compelling aspect of living in the Alps noted by respondents, was the natural environment and nature itself. The area boasts numerous strengths related to nature, including easy access to nature, beautiful landscape and scenery, proximity to natural landscapes, and unspoilt environment. Respondents also recognized several environmental factors as significant strengths, including the quality of water and air, the overall environmental conditions, the landscape, mountains, lakes, and vegetation. Another notable advantage of living in the Alps is the variety of recreational and leisure opportunities available, with activities such as hiking being freely available. The Alps are also celebrated for their tranquillity, providing a stress-free and quiet living environment. Other strengths highlighted by residents included the region's lower population density, a sense of safety, social relations, good local cuisine, and an appreciation for job opportunities.

When considered from the viewpoint of urban-rural typology and differences between areas, the biggest strengths recorded across all types of regions were nature and good air quality, followed by quiet in urban and rural regions, and recreational opportunities in intermediate regions. For Alpine residents in all three types of regions (urban, intermediate, and rural), there were many commonalities with regards to aspects appreciated: mountains, clean water, landscape, scenery, environment, moderate climate, less pollution, outdoor activities, safety, vegetation, good local food, and good quality of life in general. The most recognisable differences between urban/intermediate area and rural areas were that rural residents valued social aspects as togetherness, community, friendly people, social relations, Alpine mentality, and pristine nature much more highly, whereas urban residents distinguished themselves by appreciating more highly lakes and their proximity to sea, whilst residents from intermediate regions valued hiking and accessible services.

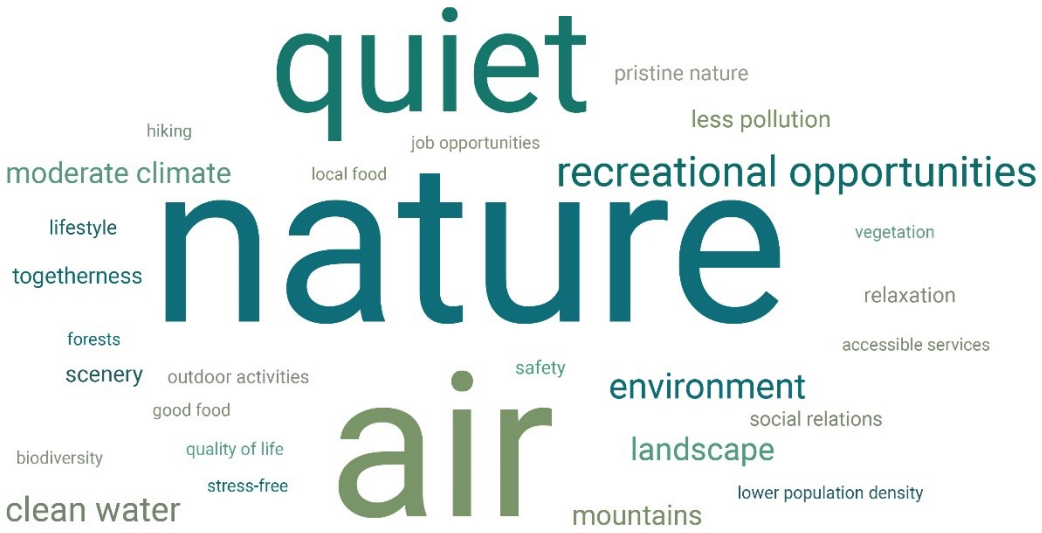

FIGURE 5.62
Biggest strengths of living in the Alps.

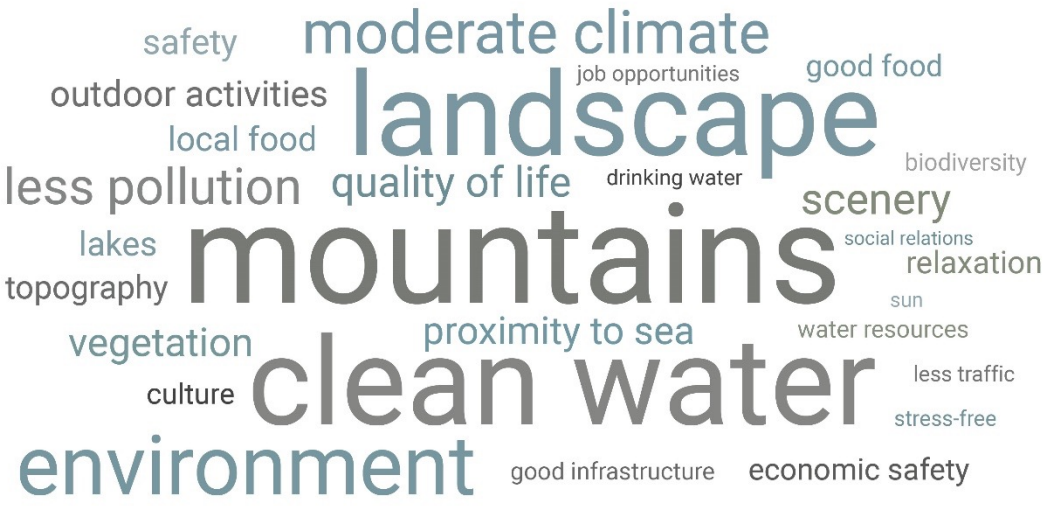

FIGURE 5.63a
Biggest strengths of living in the Alps according to urban-rural typology: urban areas.

FIGURE 5.63b
Biggest strengths of living in the Alps according to urban-rural typology: intermediate areas.

FIGURE 5.63c
Biggest strengths of living in the Alps according to urban-rural typology: rural areas.

5.8.2 Biggest weaknesses of living in the Alps

Residents of the Alps also acknowledged certain weaknesses; primarily associated with services and infrastructure. The most prominent of these weaknesses was poor public transportation, a concern shared by residents throughout the Alpine area. Another significant challenge was overtourism, particularly linked to seasonal tourism and associated traffic congestion. High living costs and high housing prices were also notable weaknesses reported by respondents. Additionally, residents noted weaknesses related to the remoteness of certain Alpine regions and how this resulted in a lack of proximity to essential services and a subsequent dependence on cars for transportation. This limited availability of services extended to shopping and cultural opportunities. Furthermore, the job market in the Alps was perceived as offering limited opportunities.

The remoteness of some Alpine areas was also seen to contribute to a sense of social isolation and a lack of social contacts. Certain climatic factors, such as cold winters and the impact of weather events and climate change, were also identified as weaknesses. Pollution and urbanisation were further noted as weaknesses. Respondents recognized a tendency towards conservatism and encountered individuals with narrow-minded perspectives.

FIGURE 5.64
Biggest weaknesses of living in the Alps.

In urban and intermediate regions, residents expressed greatest concern about factors such as remoteness, overtourism, poor public transport, and high living costs. Additionally, in both urban and intermediate regions, respondents emphasized challenges such as high housing prices, distance, traffic, infrastructure, and accessibility to services. Residents in intermediate regions shared similar concerns to those from rural areas, and highlighted issues such as limited job opportunities, accessibility to healthcare, a shortage of cultural offerings, and a lack of social contacts. Furthermore, and akin to rural regions, residents in intermediate areas also encountered conservatism and people with narrow-minded perspectives, whilst also expressing dissatisfaction with politics and governance. Among the issues stressed by respondents from urban regions were concerns related to pollution (especially air pollution), worries about weather events, cold winters, natural hazards, and a dependence on cars for commuting.

FIGURE 5.65a
Biggest weaknesses of living in the Alps: urban areas.

FIGURE 5.65b
Biggest weaknesses of living in the Alps: intermediate areas.

FIGURE 5.65c
Biggest weaknesses of living in the Alps: rural areas.

When assessed from the viewpoint of urban-rural typology, the biggest weakness recognised in rural regions was, by far, poor public transport. The second biggest weakness was tourism-related (overtourism, seasonal tourism and focus on tourism), followed by infrastructure, high living costs, and high housing prices. Many residents were bothered by having to commute long distances to services, shops, cultural events, educational institutions and health care, and the consequential need to depend heavily on their cars; contributing further to their feelings of remoteness. Being far away from urban centres, job opportunities were limited, and this situation was seen to be made even more problematic due to poor internet connections. Many people were dissatisfied with how their communities are managed at a political level, and therefore they complained about governance. Another problem pointed out by the locals was conservatism and narrow-minded mentality. Weather events (such as storms, winds, heavy snow, cold winters) were recognised as a problem by many local residents in rural areas, as well as natural hazards (such as avalanches, mudslides, droughts). A worrying environmental aspect of living in an Alpine countryside is pollution, including noise and air pollution, as well as intensive agriculture. A lot of rural inhabitants complained about urbanisation and nature degradation. Some were afraid of wild animals. Alpine rural areas are facing depopulation.

5.8.3 What influences the QoL of Alpine residents the most

Residents of the Alps also acknowledged certain weaknesses; primarily associated with services and infrastructure. The most prominent of these weaknesses was poor public transportation, a concern shared by residents throughout the Alpine area. Another significant challenge was overtourism, particularly linked to seasonal tourism and associated traffic congestion. High living costs and high housing prices were also notable weaknesses reported by respondents. Additionally, residents noted weaknesses related to the remoteness of certain Alpine regions and how this resulted in a lack of proximity to essential services and a subsequent dependence on cars for transportation. This limited availability of services extended to shopping and cultural opportunities. Furthermore, the job market in the Alps was perceived as offering limited opportunities.

The remoteness of some Alpine areas was also seen to contribute to a sense of social isolation and a lack of social contacts. Certain climatic factors, such as cold winters and the impact of weather events and climate change, were also identified as weaknesses. Pollution and urbanisation were further noted as weaknesses. Respondents recognized a tendency towards conservatism and encountered individuals with narrow-minded perspectives.

Positive impact/observations on QoL

The factors which were noted as more positively influencing QoL were related to the personal situations of the respondents. The second most frequent responses were having money and economic safety. From this it can be concluded that (having) money is a significant factor which positively contributes to enhanced levels of QoL. Factors related to the living environment such as living in the mountains and beautiful Alpine environment, serenity and the countryside lifestyle and so on were also mentioned. Respondents acknowledged that a favourable work situation, travel opportunities, strong social networks, and increased free time were significant in enhancing their QoL. Among more personal factors that were seen to contribute positively to the QoL of Alpine residents were individual family circumstances including having children, living with a partner, or getting a divorce, as well as positive thinking, achieving educational qualifications, maintaining active lifestyles, faith, and gardening.

Respondents also indicated that their QoL could be influenced both positively and negatively by their own choices, personal circumstances, personalities, values, and lifestyles. Health conditions and life events such as retirement or pursuing further education, were identified as factors that could potentially impact QoL. Governmental actions were mentioned as external factors.

Negative impact/observations on QoL

The most commonly cited factor that was seen to negatively affect QoL was politics and governance, with respondents reporting issues such as unresponsive officials, lack of government support, poor local administration, and complex bureaucracy. Financial challenges were also prevalent, with high living costs, inflation, financial struggles, low income, and difficulties with saving money all negatively impacting QoL. Additionally, and also related to work were unsatisfactory working conditions, long commutes, limited job opportunities, and poor work-life balance. Residents of the Alps were worried about climate change, focus on tourism, poor tourism management and overtourism, natural hazards, extreme weather events and biodiversity protection. However, they also reported too much emphasis on nature and biodiversity protection. Some of them mentioned poor public transport, unaffordable housing, insufficient housing services, intense urbanisation; all related to the areas in which they lived. Additionally, some respondents expressed that their general fear of the future was a significant factor which negatively affected their QoL.

Proposed measures and recommendations to maintain and improve QoL

Respondents added recommendations for improving their QoL, and in so doing proposed measures for all QoL topics. The suggestions were sorted according to the QoL topic and are presented below:

- **Environment:** active government actions to preserve biodiversity, fight climate change, limit land consumption, more focus on animals, nature protection, preserving rural areas, promoting less consumption so as to reduce ecological impacts, promote organic agriculture, restrictions on urbanisation, efficient water management.
- **Infrastructure and services:** accessible services for elderly, affordable housing for students, a better education system, a better health system, better infrastructure, better public transport, high speed internet everywhere, housing policies for housing affordability, infrastructure maintenance, provision of basic services year-round, sustainable infrastructure construction.
- **Work and financial security:** better economic security, greater equality in wages, higher pensions, more job opportunities, possibilities for telework, reductions in weekly working hours, regulated inflation, support for farmers, support for working mothers.
- **Social relations:** accepting cultural differences, enhancing community, improving social justice, more support for single parents, programs for immigrant integration, support for the elderly and the disabled, supporting social connections, supporting voluntary work.
- **Governance:** better local administration/more support from the local government, bottom-up initiatives, considering and addressing directly the needs of residents, decentralised administration, land use management, more efficient action of Alpine Convention, new development strategies (not based on tourism, but on local needs).

In addition to the QoL topic, measures were also proposed for sustainable tourism management, restrictions on tourism, supporting non-tourism activities, and supporting small tourism activities.

QoL topic	Negative impacts/observations	Proposed measures
Environment	Climate changes Natural disasters/extreme weather Nature and biodiversity Wild animals Overprotection Pollution Environmental degradation Destruction of agricultural land Limited natural resources Overgrowth Invasive plants	Climate protection Environmental protection Responsible use of resources Biodiversity protection Change in habitats directive Limiting land consumption Preserving rural areas Promoting organic agriculture
Services and infrastructure	Lack of services Poor public transport Limited travel opportunities Bad roads Too much traffic Dependence on car Unaffordable housing Insufficient health services Too many new constructions Depopulation Aging population Overpopulation	Accessible services Better infrastructure Better health services Affordable and better public transport (especially in mountain valleys and rural areas) Better road and rail connections Traffic regulations Energy independence and self-sufficiency High speed internet everywhere More activities for children and youth More entertainment offer Affordable housing (for students) Regulations on construction
Work and financial security	Inflation Recession Low salaries Pay gap Labour force shortage poor work-life balance Limited job opportunities Commuting to work High living costs Retirement	Better economic security Better work conditions Decrease payment injustice More job opportunities for young Possibilities for telework Reduction in weekly working hours Support for farmers Support for working mothers Supporting work-life balance Higher pensions
Social relations	Social injustice Social change Violence Unfriendly neighbours Narrow-minded mindset Poor social network Individualism Being single	Elderly friendly spatial planning Enhancing community Improving social justice Programs for immigrant integration More support for single parents, especially mothers Support for the elderly and the disabled Support for young Supporting social connections Supporting voluntary work
Governance	EU regulations politics and governance Complicated bureaucracy Local unfriendly policies Unresponsiveness of officials Centralised administration Corruption No political support Civil uprisings	More efficient action of Alpine Convention Better local administration Better political coordination Better territorial management Bottom-up initiatives New development strategies (not based on tourism, but on local needs) Considering and addressing directly the needs of residents Decentralised administration Governmental change

TABLE 5.6
Overview of positive and negative impacts on QoL and proposed measures suggested by Alpine residents.

QoL topic	Negative impacts/observations	Proposed measures
Other, mostly tourism	Fear of the future Focus on tourism Overtourism Seasonal tourism Secondary residences	(Sustainable) tourism management Restrictions on tourism Supporting non-tourism activities Supporting small tourism activities

5.9 Quotes from Alpine residents

5.9.1 General comments on QoL

"If you are lucky enough to be able to pursue your job via 'remote work' from the Alps and are able to participate in the economic life of a metropolitan region, then the Alps allows you to have one foot in a modern and technological world whilst also enjoying the advantages of less technology every day – nature, forest, vegetable garden, self-sufficiency, solidarity-based neighbourhoods, culture and much more."

Male (46–55), an isolated hamlet/the countryside with dispersed settlements, Italy (Udine), employed, professional and technical occupation

"At a local level, housing is the most relevant issue. Government should take strong actions to regulate the market. Inflation is another relevant issue; salaries should be adjusted. Weekly working hours should be reduced in order to also promote gender equality and avoid the common situation of full-time work for men and part time work for women. If measures are not taken, quality of life will decrease, even in Bolzano which has always scored very high for quality of life."

Male (26–35), a big city, Italy (Bolzano-Bozen), employed, clerical occupation

"My quality of life is very good, but it is very impacted by my awareness of the need for global actions relating to biodiversity and stopping global warming. Basically, every day I am stunned by the non-existence (or almost) of impactful measures on the part of our leaders. Watching myself live, watching my neighbours live in this "consumerist happiness" terrifies me … My desire for change is all too often stopped by the lack of means (public transport, local public services, cycle paths for cyclists)."

Female (46–55), the suburbs or outskirts of a big city, France (Isère), employed

"We are witnessing an increase in the destruction of the environment and biodiversity, the grabbing of water for mass tourism and the profits of the real estate lobby, the disappearance of public services, the disappearance of health systems, the disappearance of public transport (before there was a train in our valley) all in favour of cars. In fact, the quality of life of local inhabitants is inversely proportional to the quantity of public money poured into "all skiing" which weakens the sustainable economy and causes a loss of food and energy autonomy."

Female (56–65), an isolated hamlet/the countryside with dispersed settlements, France (Haute-Savoie), higher administrator occupation

"After 50 years of living in the big city, I moved back to my old hometown, a district town, and three years ago and experienced this homecoming as a boost to my quality of life. Social integration, a large selection of leisure activities close to nature, and being within walking distance of all the services you need under normal circumstances are the great strengths of a small town in an Alpine rural area."

Male (66–75), a town or a small city, Austria (Oberkärnten, Hermagor), retired, professional and technical occupation

"Local recreation, infrastructure (mountain railways, hiking trails, cross-country ski trails, ski areas, etc.), the beautiful nature of being surrounded by the Alps. Is there anything more beautiful?"

Female (36–45), a country village, Austria (Pinzgau-Pongau, St. Johann), employed, professional and technical occupation

"Climate change has a great effect on our daily lives. We are experiencing wind and snow storms. Trees are falling on the roads, there are big mud slides. When we live isolated in the mountains, we have to rely on each other to find solutions. Even if living conditions decline (apart from the presence of nature), we have strong ties between neighbours."

Female (26–35), an isolated hamlet/the countryside with dispersed settlements France (Isère), doctoral student, clerical occupation

"I'm doing well at the moment, but things will be tight financially when I retire and then better public transport connections and a safe, non-cancellable apartment would also be important. I would like to stay in Oberallgäu and not be forced to move to a city when I get older."

Female (46–55), a country village, Germany (Oberallgäu), employed, professional and technical occupation

"High quality of life, but too many tourists, too much traffic, too much noise, too little environmental awareness, sustainability or willingness to protect the climate."

Male (76–85), a town or a small city, Germany (Garmisch-Partenkirchen), retired, professional and technical occupation

"I think that there are big differences in the arrangement of matters in the city and in the countryside, where you have to do or finance a lot yourself (e.g. the installation of a sewage treatment plant, arrangement of drainage, higher investment costs due to cultural protection – which is in some places set up unreasonably or unsustainably and would need to be ventilated! Due to the distance (from institutions, shops) and the lack of public transport, it is necessary to have more than one means of transport. Cities are always in a better position than the countryside, which is neglected in various areas. As long as you are able to take care of your health for yourself and you are financially provided for as much as possible, the quality of life is satisfactory."

Female (56–65), an isolated hamlet/the countryside with dispersed settlements, Slovenia (Gorenjska, Tržič), employed, clerical occupation

"If you are lucky enough to be able to pursue your job via 'remote work' from the Alps and are able to participate in the economic life of a metropolitan region, then the Alps allows you to have one foot in a modern and technological world whilst also enjoying the advantages of less technology every day – nature, forest, vegetable garden, self-sufficiency, solidarity-based neighbourhoods, culture and much more."

Male (46–55), an isolated hamlet/the countryside with dispersed settlements, Italy (Udine), employed, professional and technical occupation

"At a local level, housing is the most relevant issue. Government should take strong actions to regulate the market. Inflation is another relevant issue; salaries should be adjusted. Weekly working hours should be reduced in order to also promote gender equality and avoid the common situation of full-time work for men and part time work for women. If measures are not taken, quality of life will decrease, even in Bolzano which has always scored very high for quality of life."

Male (26–35), a big city, Italy (Bolzano-Bozen), employed, clerical occupation

"My quality of life is very good, but it is very impacted by my awareness of the need for global actions relating to biodiversity and stopping global warming. Basically, every day I am stunned by the non-existence (or almost) of impactful measures on the part of our leaders. Watching myself live, watching my neighbours live in this "consumerist happiness" terrifies me … My desire for change is all too often stopped by the lack of means (public transport, local public services, cycle paths for cyclists)."

Female (46–55), the suburbs or outskirts of a big city, France (Isère), employed

"We are witnessing an increase in the destruction of the environment and biodiversity, the grabbing of water for mass tourism and the profits of the real estate lobby, the disappearance of public services, the disappearance of health systems, the disappearance of public transport (before there was a train in our valley) all in favour of cars. In fact, the quality of life of local inhabitants is inversely proportional to the quantity of public money poured into "all skiing" which weakens the sustainable economy and causes a loss of food and energy autonomy."

Female (56–65), an isolated hamlet/the countryside with dispersed settlements, France (Haute-Savoie), higher administrator occupation

"After 50 years of living in the big city, I moved back to my old hometown, a district town, and three years ago and experienced this homecoming as a boost to my quality of life. Social integration, a large selection of leisure activities close to nature, and being within walking distance of all the services you need under normal circumstances are the great strengths of a small town in an Alpine rural area."

Male (66–75), a town or a small city, Austria (Oberkärnten, Hermagor), retired, professional and technical occupation

"Local recreation, infrastructure (mountain railways, hiking trails, cross-country ski trails, ski areas, etc.), the beautiful nature of being surrounded by the Alps. Is there anything more beautiful?"

Female (36–45), a country village, Austria (Pinzgau-Pongau, St. Johann), employed, professional and technical occupation

"Climate change has a great effect on our daily lives. We are experiencing wind and snow storms. Trees are falling on the roads, there are big mud slides. When we live isolated in the mountains, we have to rely on each other to find solutions. Even if living conditions decline (apart from the presence of nature), we have strong ties between neighbours."

Female (26–35), an isolated hamlet/the countryside with dispersed settlements France (Isère), doctoral student, clerical occupation

"I'm doing well at the moment, but things will be tight financially when I retire and then better public transport connections and a safe, non-cancellable apartment would also be important. I would like to stay in Oberallgäu and not be forced to move to a city when I get older."

Female (46–55), a country village, Germany (Oberallgäu), employed, professional and technical occupation

"High quality of life, but too many tourists, too much traffic, too much noise, too little environmental awareness, sustainability or willingness to protect the climate."

Male (76–85), a town or a small city, Germany (Garmisch-Partenkirchen), retired, professional and technical occupation

"I think that there are big differences in the arrangement of matters in the city and in the countryside, where you have to do or finance a lot yourself (e.g. the installation of a sewage treatment plant, arrangement of drainage, higher investment costs due to cultural protection – which is in some places set up unreasonably or unsustainably and

would need to be ventilated! Due to the distance (from institutions, shops) and the lack of public transport, it is necessary to have more than one means of transport. Cities are always in a better position than the countryside, which is neglected in various areas. As long as you are able to take care of your health for yourself and you are financially provided for as much as possible, the quality of life is satisfactory."

Female (56–65), an isolated hamlet/the countryside with dispersed settlements, Slovenia (Gorenjska, Tržič), employed, clerical occupation

5.9.2 Environment

"We should continue to use our Alps for tourism, but protect them in such a way that it sets an example for all regions of the world."

Male (46–55), a country village, Austria (Pinzgau-Pongau, St. Johann), employed, higher administrator occupation

"The world is still fine for me. However, it looks like there are numerous problems facing us (climate change, thawing permafrost, floods and mudslides caused by increased heavy rain)."

Male (66–75), a town or a small city, Austria (Pinzgau-Pongau, Zell am See), retired, higher administrator occupation

"I am very worried about the return of the large predators. Farmers in particular are suffering greatly. The majority of supporters live in cities and the wolf or bear has little or no influence on their daily lives. If agriculture stops, entire regions die. In most cases, herd protection is not possible at all, and where it is possible, it involves a lot of additional effort that neither farmers nor society are willing to bear. The Flora Fauna Habitats Directive must be changed if we value rural areas."

Male (56–65), an isolated hamlet/the countryside with dispersed settlements, Austria (Pinzgau-Pongau, St. Johann), employed, higher administrator occupation

"I hope that man, and not too late, realizes how essential it is to respect our planet and those who live on it. Otherwise our quality of life will still be insignificant."

Female (46–55), a town or a small city, Italy (Imperia), employed, professional and technical occupation

"I would like more awareness and insight into the importance of protecting the environment in this fragile and sensitive mountain world."

Male (66–75), an isolated hamlet/the countryside with dispersed settlements, Slovenia (Savinjska, Luče), retired, higher administrator occupation

"Climate change threatens to reduce the quality of life in the Alps."

Male (26–35), a country village, Switzerland (Valais), employed, higher administrator occupation

"Climate change and its consequences at all social, economic, health and environmental levels will considerably destabilize our societies. I am happy but pessimistic."

Female (46–55), the suburbs or outskirts of a big city, France (Savoie), employed, professional and technical occupation

"Nature on your doorstep, little traffic noise, slows down everyday life – you live where others go on holiday."

Female (56–65), an isolated hamlet/the countryside with dispersed settlements, Austria (Lungau, Tamsweg), employed, clerical occupation

5.9.3 Infrastructure and services

"I find the quality of life in the Alps, in the village, to be much higher than in a city. The quality of life could be significantly improved through sensible roads with little traffic jams."

Male (56–65), a country village, Germany (Ostallgäu), employed, professional and technical occupation

"I hope that in general the Alpine region will not only be left to SENIOR people in their twilight years, but that everything will be done to make the area more attractive for young people. Offers for young people must be the focus of efforts."

Male (46–55), a country village, Austria (Oberkärnten, Hermagor), employed, service occupation

"Until 4 years ago I lived in a mountain town (500 inhabitants), now I live on the outskirts of a city of 35.000 inhabitants, but still in a mountain area. My quality of life has remained substantially unchanged because where I live now has more traffic and pollution (especially noise) but there are more and better services."

Male (56–65), a town or a small city, Italy (Belluno), employed, clerical occupation

"5G should be promoted for total internet coverage, public services with the current timetables are useless, the "empty" 54-seater buses should be replaced with an electric shuttle service every 30 minutes, families should be helped with regard to winter heating, and greater awareness is needed for electric traction and solar panels. Public administration should be made fully digital, so that people can use the services without going on site. Public administration should be moved out of the centre into a single area equipped with public services."

Male (56–65), an isolated hamlet/the countryside with dispersed settlements, Italy (Valle d'Aosta/Vallée d'Aoste), employed, professional and technical occupation

"The first paediatric emergency room is 35km away and I still feel lucky because there are those who are worse off. If I have accidents while driving to work, I am accused of using non-existent public transport."

Female (36–45), a country village, Italy (Bergamo), employed, professional and technical occupation

"In the area where I live, the biggest problem for my generation is that despite good salaries, we cannot afford our own properties."

Female (26–35), a town or a small city, Slovenia (Gorenjska, Radovljica), employed, higher administrator occupation

5.9.4 Work and financial security

"Quality of life is so good because I am a cross-border commuter and therefore have the salary from Switzerland to live in Austria."

Female (26–35), a country village, Austria (Rheintal-Bodenseegebiet, Bregenz), employed, professional and technical occupation

"I live comfortably because I produce my food, don't spend too much, and own my home but the cost of living is very expensive and I couldn't do it if I hadn't become a homeowner before all this inflation!"

Female (36–45), an isolated hamlet/the countryside with dispersed settlements, France (Haute-Savoie), employed, higher administrator occupation

"The cost of living has increased too much, utilities, fuel, and rent. We work to survive and not to live."

Female (26–35), a town or a small city Italy (Vicenza), employed, clerical occupation

"The fact that I do not work in the municipality where I live and have to be away/separated from my family for part of the week lowers the quality the most, I drive too far to work."

Female (36–45), a town or a small city, Slovenia (Goriška, Tolmin), employed, higher administrator occupation

"Life becomes more and more expensive. Everything increases except wages. It could become problematic if it continues like this."

Female (26–35), a big city, Switzerland (Vaud), employed, clerical occupation

"I am happy to live in the Alps and I can do so thanks to the possibilities of teleworking."

Female (36–45), the suburbs or outskirts of a big city Italy (Trento), employed, professional and technical occupation

5.9.5 Governance

"It is shameful that municipalities leave small mountain villages without essential services, namely aqueducts, sewers, and snow removal. We are abandoned by the institutions. For the municipality of Aosta it is as if we do not exist."

Male (46–55), an isolated hamlet/the countryside with dispersed settlements, Italy (Valle d'Aosta/Vallée d'Aoste), employed, service occupation

"The quality of life for rural people is deteriorating, because decisions about the countryside are made by "couch nature conservationists", who are out of touch with reality. Politics should listen to the people who live in the areas concerned, because they know the real situation."

Male (18–25), a country village, Slovenia (Gorenjska, Bled), student, professional and technical occupation

"The deterioration of the quality of life in rural areas is mainly influenced by marginal groups, who have gained the ability to influence and implement measures, without taking into account the opinion of those affected. For example, the favouritism towards animals (e.g. SLO-WOLF, Alpe Adria green), the introduction of more and more restrictions for the inhabitants of the land, especially farmers, while at the same time opening spaces to all kinds of activities that disturb the rhythm of the peaceful the countryside (wild tourism, foraging everywhere, easy construction of fertile land … mainly at the expense of the landowners and the indigenous rural population. The countryside is losing its basic function, that is, above all, agriculture, which should have the first priority."

Male (66–75), a country village, Slovenia (Gorenjska, Radovljica), retired, professional and technical occupation

5.9.6 Other, mostly tourism

"The Alpine region has become too crowded. All the beautiful places are overflowing with day visitors. On weekends you can hardly go up the mountain because everything is overcrowded."

Male (56–65), a country village, Germany (Garmisch-Partenkirchen), semi-retired, service occupation

"In Upper Gorenjska, tourism strongly affects the quality of life of the local population practically on a daily basis (traffic congestion, introduction of parking fees almost everywhere, higher prices of services, high prices of real estate, lack of privacy –

tourists are everywhere, conflicts between agriculture and tourism – encroachment on agricultural land). Despite the fact that this is the main economic industry for the region, it crosses all borders and already has a negative impact on the general opinion of the people."

Male (36–45), a country village, Slovenia (Gorenjska, Jesenice), employed, professional and technical occupation

6 GOVERNANCE FRAMEWORK FOR QOL

The chapter outlines the governance framework for the quality of life which consists of relevant existing regulations, institutional settings, and other organisational practices which operate at cross-border/supranational, national, regional and local levels within the AC signatory countries. The data for the governance framework was collected using a form prepared by the University of Ljubljana (see Annex 1.1) between February to July 2023. The respondents were experts delegated by the AC countries to the RSA 10 preparation working group. Altogether 8 forms were collected, and they covered all 8 of the Alpine Convention countries. The coverage of policy documents mainly comprises the topic of QoL in the cases when it is an overarching policy topic, aside that policies for spatial and regional planning sectors are depicted.

6.1 Policies and institutions addressing QoL

6.1.1 Supranational level

The European Union integrates QoL in its major policy goals (Lisbon Treaty), concerning all three major cohesion objectives, e.g. economic, social and territorial cohesion. In Territorial Agenda 2030 territorial cohesion is defined as the objective *"to promote balanced and harmonious territorial development between and within countries, regions, cities and municipalities, as well as ensuring a future for all places and people in Europe, building on the diversity of places and subsidiarity"* (TA 2030). Territorial Agenda 2030 defines two overarching objectives, a Just Europe, which offers future perspectives for all places and people, and a Green Europe, which will protecting common livelihoods and shape social transition. The agenda's actions call to increase citizens' quality of life and well-being beyond economic performance and prosperity, since healthy environments, high-quality architecture and public/urban spaces, and access to quality public services are integral for overall well-being. The TA2030 makes a clear case for securing quality of life through spatial planning efforts. Further actions, relevant to QoL and Alpine areas as well, include: the provision of services of general interest (par. 27), tackling demographic and societal imbalances (par. 28); employment and economic development (par. 30); tackling increasing pressures on the environment, loss of biodiversity, and increases in land consumption (par. 36); climate change adaptation and mitigation as new development opportunities for places (par. 35); and ensuring the quality of air, soil, and water (par. 37); protecting nature, landscapes and cultural heritage as local and regional development assets offering unique opportunities, as well as high-quality living environments (par. 41).

In addition, **EUROSTAT** was given the task of measuring QoL across European member states. Consequently, EUROSTAT's annual flagship publication in 2015 was dedicated to the **Quality of Life**. The different aspects of people's well-being are presented both by objective indicators and by the measured subjective perception of individuals. The later are based on the EU-SILC 2013 ad-hoc module on subjective well-being, complemented by the European Statistical System ESS and EU Labour Force Survey EU-LFS. The measuring concept addresses 8+1 dimensions of QoL (material living conditions, productivity/main activity – employment, health, education, leisure and social interactions, economic and physical safety, governance and basic rights, natural and living environment and overall life satisfaction). The data covers EU Member States and EFTA countries (Switzerland).

The **Alpine Convention** Protocols provide details as to how to execute the convention's goals and objectives and include concrete steps and specific measures for the protection and sustainable development of the Alps. The signatory countries ratified ten protocols, eight of which are thematic. Additionally, the Alpine Convention has, so far, adopted six ministerial declarations. Even though none of the ten existing Alpine Convention Protocols directly addresses Quality of Life, overarching goals and actions indirectly contribute to the maintenance and enhancement of quality of life and well-being in the Alps. In particular, these are the **Protocol on Spatial Planning and sustainable development** (AC III, 1994a) and the **Protocol on Nature Protection and Landscape Conservation** (AC III, 1994b), as well as the **Declaration on Population and Culture** (AC IX, 2006a), the **Declaration on Climate Change** (AC IX, 2006b).

Furthermore, the new **Multi-Annual Work Programme** of the AC (MAP) for the period 2023–2030 focuses its third priority on enabling a good quality of life for the people of the Alps. In so doing, it notes that QoL is an overarching topic that is linked to three spheres of sustainable development: economic, social, and environmental. The two main objectives the MAP's third priority focus on a) furthering AC's knowledge of quality of life in the region, and b) promoting the inclusion of QoL measures in public policies and decision-making processes at all territorial levels.

In addition to the efforts of the Alpine Convention, there are other governance structures in the Alps. **The EU Strategy for the Alpine Region** (EUSALP) is one of four European macroregional strategies. EUSALP seeks *"to **balance development and protection through innovative approaches** which strengthen this area located in the center of Europe as a living space for people and nature as well as a field for economic and social activities in a sustainable way"* (EUSALP, 2023). Seven member states participate in the agreement: Austria, France, Germany, Italy, Liechtenstein, Slovenia, and Switzerland. **The Alpine Region Preparatory Action Fund** (ARPAF) was established by the European Parliament to financially support its nine Action Groups in the work plans' implementation and establish economic and social cooperation in the Alps. Covering the topics of sustainable mobility, natural resources, circular economy, digitalisation, soil protection, qualifications, and demographic change, the supported projects contribute to the objectives of the EU strategy for the Alpine Region. A longer established financial instrument is the Interreg **Alpine Space Programme**, a European Union Cohesion instrument which finances cooperation projects across the borders of Alpine countries which are focused on tackling common challenges and improving the QoL of Alpine citizens in a transnational manner. The programme addresses public authorities at different levels (national, regional and local), higher education institutions, enterprises, business support organisations, NGOs and associations.

There are also several **regional** or **thematic networks** in the Alps (see Annex 6.4) **which contribute** to the implementation of the Alpine Convention and steer Alpine development in a sustainable way. Among these networks are:

- **ALPARC – the Alpine Network of Protected areas** (AC implementation),
- **Alliance in the Alps** (which promotes sustainable development of the Alpine living environment through AC implementation),
- **Alpine Town of the Year Association** (Awards to towns committed to the AC implementation in sustainable, balanced, economic and environmentally conscious ways), and
- **CIPRA** (achieving sustainable development in the Alps).

6.1.2 National level

Germany, Austria, Switzerland, Liechtenstein, Italy, and France have three or more levels governance, including federal/national, regional, and local levels. Slovenia is organised on two levels, national and local, while Monaco's national and local levels coincide geographically, but have separate responsibilities. Germany, Austria, and Switzerland are federal states; therefore, they grant legislative power to sub-national levels, e.g. in Germany and Austria, to federative states, and in Switzerland to cantons. Even though Italy is a unitary state, its legislative powers have been transferred to the regions (as well as to autonomous regions and *self-governing provinces*). France is a unitary state that does not have intermediate level but instead has three levels of lower-tier governance without legislative power, namely: regions with directly elected assemblies, departments, and municipalities (*communes*). Municipalities can also form intercommunal cooperation bodies (*EPCI – Etablissement de coopération intercommunale*), and can pass certain levels of municipal jurisdiction to the EPCI.

Policies related to QoL

Equally diverse are the governance, administrative, and regulatory systems of the AC signatory countries, as are their ways of addressing QoL and well-being through policies. In addition, the UN's Sustainable Development Goals (SDGs) are sometimes used as a reference framework which influences many policies across AC territories. Some countries include QoL in their fundamental laws, while others include it in various strategic and developmental documents. These can be Sustainable Development Strategies (SI, CH, IT, DE-BY) or governmental political programmes (AT, LI, MC), and may be supplemented by Recovery and Resilience programmes (IT, FR) or other documents and programmes (EU Programmes, Action Plans, Investment plans; SI, FR, CH, DE-BY). The aforementioned development policies are further explained as examples below.

At the highest level, Liechtenstein and Bavaria (DE) address welfare and equivalent living conditions (EQC) in their **constitutions**. Liechtenstein has included public welfare in its constitution since 1921, and refers to *"the primary task of the state [as being] to promote the entire welfare of the people"* (Art. 14)[6] (GFS LI, 2023); while Bavaria, following a referendum in 2013, included EQC in the constitutional amendment of Art.3[7] *"The State protects the natural basis of life and its cultural traditions. It promotes and secures equivalent living and working conditions throughout Bavaria, in urban and rural areas"*. As a result of the constitutional amendment coming into force on the 1 January 2014, the key objective of state planning contained in the Bavarian State Planning Act and the State Development Programme (*Landesentwicklungsprogramm – LEP*), according to which equivalent living and working conditions are to be created and maintained in all of Bavaria, became elevated to a constitutionally anchored state goal (GFS DE-BY, 2023a).

[6] „Die oberste Aufgabe des Staates ist die Förderung der gesamten Volkswohlfahrt ..."

[7] „[1]Der Staat schützt die natürlichen Lebensgrundlagen und die kulturelle Überlieferung. [2]Er fördert und sichert gleichwertige Lebensverhältnisse und Arbeitsbedingungen in ganz Bayern, in Stadt und Land."

Furthermore, Austria, Liechtenstein and Monaco have based their development on the **government political programmes** and their mandates. The main theme of the current coalition government programme in Austria is "Out of a Sense of Responsibility to Austria" (*Aus Verantwortung für Österreich. Regierungsprogramm 2020–2024*), which has stated goals of ensuring a good life for everyone in the country, protecting the environment and nature, enabling good health, nutrition, prosperity, work conditions and thus creating sustainable place in long term. Liechtenstein's' government programme (*Regierungsprogramm 2021–25*) directly addresses the constitution goal of promoting the welfare of the people.

The majority of AC countries do not possess policies or legislation that only addresses QoL issues. Instead, the topic is addressed through **a range of different sectoral policies**, which target QoL indirectly. For example, Austrian legislation integrates and implicitly addresses QoL concepts across different levels and topics such as: social, health, education, mobility and traffic, food quality, safety and crime prevention, environmental quality, leisure facilities, work and labour and many more. As a result, regulations and target values of environmental qualities (air, water, noise) impact and enact measures to secure a high level of QoL (GFS AT, 2023).

Even though QoL is constantly considered by The Prince's Government of Monaco, a separate QoL-related strategy has not been adopted so far. The Monegasque government likewise assures QoL through a range of sectoral policies, as well as monitoring and implementing the long-term strategy as a means to guarantee quality with regards to housing, daily life, entertainment and the country's development (GFS MC, 2023). Monaco's sustainable development focuses on the preservation of biodiversity and resources, the reduction of greenhouse gas emissions, and a policy for sustainable towns that is based on four pillars:

- Managing natural heritage;
- Implementing a climate and energy plan;
- A policy for a sustainable town;
- Mobilising the Monegasque community.

These pillars are named in the Sea Code adopted in 1998 and in the *Environment Code* (*code de l'environnement*), adopted in 2017. This legislation covers all areas (protection of nature and the environment, pollution, risks and nuisance, the enhancement of quality of life, securing the right to a healthy environment; MC, 2023a).

Within existent **strategic documents**, no Alpine Convention country has denominated QoL directly in their titles. Those which come closest to addressing QoL are Switzerland's Sustainable Development Strategy 2030 and Slovenia's Development Strategy 2030. The Slovenian Development Strategy 2030's (*Strategija razvoja Slovenije 2030, 2017*) main theme is *"QoL for all"*, and this is outlined through twelve development goals and priorities such as sustainable economic growth, social inclusion, environmental protection, access to general services and housing, effective governance, etc.; all of which support specific policy objectives, measures and actions that are designed to promote sustainable development and improve the QoL of all citizens. More strategic SI documents may be found in Annex 1.2.

[8] Strategie Nachhaltige Entwicklung 2030 (German) / Stratégie pour le développement durable 2030 (French) / Strategia per uno sviluppo sostenibile 2030 (Italian)

The *Swiss 2030 Sustainable Development Strategy*[8] acts as a meta-strategy to achieve QoL and well-being, following the UN's 2030 Agenda for Sustainable Development and its 17 SDGs as a reference framework. The Swiss Federal Council adopted the Sustainable Development Strategy 2030 as well as an Action Plan for implementation. The Federal Councils' understanding of sustainable development is that *"sustainable development enables the basic needs of all people to be met and ensures a good quality of life worldwide, now and in the future"*, encompasses the three dimensions of environmental responsibility, social solidarity, and economic performance, and does so on an equal, balanced and integrated basis that considers the tolerance limits of global ecosystems. Similarly, the Italian National Sustainable Development Strategy (*Strategia Nazionale per lo Sviluppo Sostenibile – SNSvS, 2017*), outlines the national path that is being taken towards achieving the UN's 2030 Agenda as well as meeting the 17 SDGs. The strategy is structured into six thematic areas, according to the 5ps (people, planet, prosperity, peace, and partnerships) and drivers of sustainability. QoL is addressed by all 6 thematic areas, but more specifically the part focusing on people provides strategic decisions and goals connected with the quality of life. Furthermore, The National Recovery and Resilience Plan (*PNRR – Piano Nazionale di Ripresa e Resilienza*) focuses on creating an equitable, sustainable, and inclusive Italy.

The **development strategies and programmes** are often supplemented by other statutory programmes, strategies, and local action plans. For example, in Germany, at the national level, the Federal Government steers **rural development** via the GAK Framework Joint Task for the Improvement of Agricultural Structures and Coastal Protection (*Gemeinschaftsaufgabe "Verbesserung der Agrarstruktur und des Küstenschutzes"; GAK*). GAK's purpose is to improve the country's agricultural structure within the framework of the EU common agricultural policy and possesses the main objectives of securing the development of living, working, and recreational conditions and natural spaces. It is the most important national funding instrument which supports agriculture, forestry, rural development, and coastal improvement, as well as flood protection. At the federative state level, Bavaria's development programmes are closely related to spatial planning and

therefore described in detail in the section c) of this subchapter. Bavaria has also adopted other strategies for the future such as the Community Strategy 2025 (*Heimatstrategie 2025*) and The Future Vision for the Community (Zukunftsvision Heimat), which aim to maintain high QoL and ensure equivalent living and working conditions for all and are aligned with the aforementioned constitutional amendment. Additionally, Bavaria rewards municipalities and villages for promoting and ensuring good QoL with the label: *Gütesiegel Heimatdorf 2023*.

France's guiding programmes and development plans are based on the **Recovery and Resilience plan** and are supplemented by various **investment plans for the future**. QoL and well-being are addressed indirectly through tackling low-carbon transition, creating a climate-resilient economy, investments, health, and education in the following documents:

- Recovery and Resilience Plan (main guiding development plan preparing future-ready France);
- The French Investment Plan France 2030 (pursuing 10 objectives for better understanding, better living and better production by 2030);
- the Plan for investment in the future (*Programme d'investissement d'Avenir PIA, 2010)* – an economy and technology centred programme for research on national issues post-financial crisis 2010), which in the section named Ecology, Development and Sustainable Mobility Mission (*Mission "écologie, développement et mobilité durables"*) addresses energy transition, sustainable economy, waste recycling and de-carbonisation.

From the policy overview, it can be concluded that the topic is best represented in development strategies on the national level and, else, via various sectoral policies concerning topics like health, transport, infrastructure and others. Only Switzerland and Slovenia have policies which directly integrate quality of life as a main policy concept.

Institutional Frameworks for QoL

France, Italy, and Monaco have governmental bodies supporting QoL. France has a sub-directorate for QoL; the General Commission for sustainable development (*Commissariat général au développement durable – CGDD*) (GFS FR, 2023). Italy has a Steering committee on well-being (*Cabina di regia Benessere Italia*), a body which supports the Prime Minister on QoL and people's well-being dedicated topics, as well as monitoring and coordinating the activities of Ministries', and assisting regions, autonomous provinces and local authorities (GFS IT, 2023). Since 2011, Monaco has had The Strategic Council for Attractiveness (*Conseil Stratégique pour l'Attractivité – CSA*), which contributes to decisions on issues relating to the Principality's economic development and future prospects (GFS MC, 2023). One of its Committees is dedicated to Quality of Life (CSA, 2018).

Besides France, Italy, and Monaco, no other AC country has reported the existence of an institution that is specifically dedicated to QoL or Well-being governing. In general, securing good QoL, well-being, and welfare is a cross-sectoral duty of all governmental bodies.

To provide a bridge across sectors, Germany established a commission in 2018 on equivalent living conditions (*Gleichwertige Lebensverhältnisse*), which resulted in a policy document: Our plan for Germany (*Unser Plan für Deutschland – Gleichwertige Lebensverhältnisse überall*). This has been adopted by three federal ministries (Federal Ministry of Interior, Federal Ministry of Family Affairs, Federal Ministry of Agriculture). The main goal is to achieve comparable living conditions across Germany, and to provide everyone in Germany with fair chances to participate in society. Bavaria pursued the concept[9] and its commission elaborated theoretical foundations for four pillars by which to achieve equivalent living conditions for all. These are:

- Allocation of justice (*Verteilungsgerechtigkeit*),
- Justice of equal chances (*Chancengerechtigkeit*),
- Generational justice (*Generationengerechtigkeit*),
- Procedural justice (*Verfahrensgerechtigkeit*) (GFS DE-BY, 2023; QOL DE, 2022; Bayerischer Landtag 17/19700).

[9] Bericht der Enquete-Kommission „Gleichwertige Lebensverhältnisse in ganz Bayern" Drucksache 17/19700

Spatial Planning systems of AC countries

In addition to development policies and legislation, the spatial planning systems and institutional solutions of individual countries were also analysed. The spatial planning policies of different AC countries differ. Smaller states have predominately national and local levels, and sometimes regional. In contrast, bigger, federal states' spatial planning competencies are often fully or partly transferred to regional or federative state level, and there is no common national legislation on spatial planning. The documents steering the spatial planning in the countries are either strategies (SI), concepts (AT, CH, LI), regulative/ legislative decisions (DE, IT, FR, MC), or urban development policies or programs (DE-BY). Quality of Life is generally not directly addressed by planning activities, but is addressed through measures improving the living environment, as well as integrated planning and environmental protection. This is profoundly intertwined in the cases of Austria and Bavaria (DE), where spatial planning and development are traditionally associated with providing appropriate living conditions.

Austria has no spatial planning at the national level, not even a framing law. Each of the nine federative states (*Bundesländer*) have their own responsibilities and spatial planning legislation. Austrian spatial planning is outlined by the Austrian spatial development concept (*Österreichisches Raumentwicklungskonzept, "ÖREK 2030"*), which steers national spatial planning through recommendations and guidelines. This concept should be followed by all institutions represented in the Austrian Conference on Spatial Planning (*Österreichische Raumordnungskonferenz, ÖROK*). The ÖREK is a strategic recommendation and serves as a voluntary agreement. The ÖREK 2030 motto is "Need for transformation", thus, the future central challenge for spatial development will be to jointly achieve the transition to a sustainable, non-fossil fuel society and economy that offers a high quality of life and equivalent living conditions across all regions. The contributions of spatial planning are essential for achieving this transition in energy use and mobility behaviour. QoL is addressed across 10 priorities, set in the concept, but more specifically in the 7th priority, which focuses on ensuring equivalent living condition via the supply of basic services and housing *(ÖREK 2030)*. Legislative competence in spatial planning is at federative state and municipal levels. (GFS AT, 2023).

In German the legal basis for planning system is the Federal Spatial Planning Act (*Raumordnungsgesetz ROG*), amended in 2017. National and Federative state (*Länder*) governments have some complementary legislative authorities in spatial planning. If both governmental levels adopt spatial planning laws, the latest enacted law (either federal or state law) takes precedence (OECD, 2017). The National level issues sectoral plans (transport infrastructure, maritime economic zones, landscape programmes, risk-based planning and so on), while the supra-local level is, in general, the responsibility of the Federative states (*Länder*), which prepare guidelines for lower levels of government. The Bavarian State Development Programme (*Landesentwicklungsprogramm LEP*) is, as a result, the main spatial planning document in Bavaria. The LEP is preceded by a common vision in all thematic sub-areas (equivalent living and working conditions; attractive living and working spaces; spatially balanced and polycentric development; diverse regions, towns, villages and landscapes; efficient transport infrastructure; climate protection and climate adaptation measures; sustainable and efficient energy infrastructure; moderate and efficient land use). The LEP is implemented via 18 Bavarian regional plans, of which three are in the Alpine area (*Allgäu, Oberland, Südostoberbayern*). The further development of rural areas is a common shared responsibility between the state, citizens, initiatives, and the cooperation of different social groups and planning partners. Additional Bavarian strategies and programs which indirectly address QoL are:

- the Bavarian Biodiversity Strategy (*Bayerische Biodiversitätstrategie, 2008*) and its Nature Diversity Bavaria Programme (*Natur Vielfalt Bayern – Biodiversitätsprogramm Bayern 2030, 2014*);
- the Village Renewal Programme for rural development, CLLD EU LEADER and their Local Action Groups (LAG); as well as
- the Programme for Forest Conversion Offensive or Initiative to climate change (*Waldumbauoffensive 2030*).

In addition, integrated urban development is since 2007 led by The National Urban Development Policy (*Die Nationale Stadtentwicklungspolitik*), a joint policy initiative of the national government, federative states and local municipalities to pursue the Leipzig Charter on Sustainable European cities in Germany (OECD, 2017; GFS DE/BY, 2023).

The responsibilities of France's national government when it comes to spatial planning are focused on creating the legal framework which addresses land use planning and environmental policies, as well as planning and financing national infrastructure projects (motorways, railways, facilities, universities and so on). National-level spatial plans do not exist in France (OECD, 2017a). In the past, France's spatial planning system was dependent on the economic and social development of regions i.e. "regional economic", tackling social and territorial disparities. France has now broadened its land use planning objectives and shifted focus from economic development to a more integrated approach that includes social and environmental objectives, with a stronger emphasis on spatial coordination though a hierarchy of spatial plans (regional plans are now binding on lower tier plans). Territorial and planning reforms have placed regions as the lead actors for strategic spatial planning and sustainable development, while départements focus more on social development and services, and communes focus on land use plans and public services (OECD, 2017b). Spatial planning in France is organized on three levels:

- **Regional:** strategic plans guide planning policies and the spatial vision of the region; Regional planning, sustainable development and equality scheme (*SRADDET– Schéma régional d'aménagement, de développement durable et d'égalité des territoires*), is legally binding for subordinate plans and includes former sectoral plans;
- **Intermediate:** *Metropolitan Territorial Coherence Scheme* (*SCoT– Schéma de cohérence territoriale*) provides general spatial strategies and zoning regulations for areas comprised of several municipalities and is the legally binding framework for local land use plans;
- **Local:** provides local zoning regulations for *Local Urban Plan* (PLU – Plan local d'urbanisme) and/or Intercommunal Local Urban Plans (*PLUI – Plan local d'urbanisme intercommunal*) (OECD, 2017a).

Italy has a national planning policy, which organises the hierarchy for supplementary levels and transfers competencies to them. The National Urban Planning Law (*LUN Legge urbanistica Nazionale 1150/1942*) is somehow outdated and has been amended several times (e.g. 167/1962, *Legge ponti 765/1967, 1187/1968, 865/1971, 1444/1968, 10/1977, 142/1990*) or has had individual articles suspended due to court rulings. Nevertheless, the country's planning instruments (plans typology) remain the same. The main goal of legislation is to guarantee controlled/guided territorial urbanisation (OECD, 2017). The LUN sets the spatial hierarchy at three levels:

- Regional territorial coordination plans (*PTCR Piano territorial di Cordinamento Regionale*);
- Provincial (supra-municipal) plans / territorial coordination plans (*PTCP Piano Territoriale di Coordinamento Provinciale*);
- Municipal plans which are widely applied through General regulatory plans (*PRG Piano Regolatore Generale*) and can include several more detailed implementational plans (e.g. Detailed regulatory plan – PP Piano particolareggiato, Restoration Plan – PdR *Piano di Recupero*) (GFS IT, 2023).

Since 1972, the building and land sector has gradually passed from centralized (national) management to regional, with individual regions adopting regulations on territorial and spatial planning as well as the construction sector (Regional Territorial Plans – PTCR and Regional Landscape Plans – PTP). Not all regions have adopted regional territorial plans; hence, Provincial Territorial Coordination Plans (PTCP) and Metropolitan Territorial Strategic Plans (PTM) have replaced provincial plans in newly created metropolitan city areas (2014). Since the 2001 Constitutional reform, spatial governance has been a shared competence between national and regional levels, and this is why each region has greater autonomy when it comes developing its spatial governance and planning laws in accordance with LUN (GFS IT, 2023; OECD, 2017).

Slovenian spatial planning system is outlined in the National Spatial Order (*Državni prostorski red, 2004*), which outlines 21 basic rules of spatial planning. It frames the foundations for preparing general guidelines, spatial planning recommendations, and expert studies. The Spatial Development Strategy of Slovenia (*SPRS – Strategija prostorskega razvoja Slovenije, 2004, 2050*), is a long-term vision for the state's spatial development, and outlines the state's the main spatial development objectives, including those related to QoL. It also provides guidelines for regional and local planning. The SPRS aims to promote sustainable development by balancing economic, social, and environmental objectives. The SPRS 2050, has been developed to be consultative process between representative stakeholders form all levels of spatial planning and management, including non-governmental organisations and interested members of the public. In the SPRS 2050, the principles of sustainable spatial development have been strengthened. The development requirements to achieve competitiveness have been aligned through the rational use of space, resources, and energy. The activities which seek to achieve spatial cohesion are focused on solving spatial development challenges, the sustainable development of urban areas and the countryside, the coordination of goals and measures for public policies, the efficient, sustainable and innovative use of resources, and the gradual transition of territorial governance from a normative to a participatory model of spatial management.

Based on the Spatial Planning Act (*Zakon o urejanju prostora UL RS 199/21, 18/23*), spatial planning is organised hierarchically: national, regional (currently under pilot implementation), and municipal; and divided into strategic and implementational (executive) acts. Strategic acts are development planning documents which define mostly the objectives and aims of spatial development of the country (*Strategy of the Spatial Development of the Republic of Slovenia 2050*), region (RPP – Regional Spatial Plan), or municipalities (OPN – Municipal Spatial Plan).

Liechtenstein's' main spatial development orientation is balancing the settlement development and traffic streams, due to many daily commuters from neighbouring countries. This orientation is pursued by adopting spatial (*Raumkonzept 2020*) and mobility (*Mobilitätskonzept 2030*) concepts. The main objectives of both are: cooperation with the Swiss border region to handle cross-border traffic; ensuring settlement development in existing building zones and their densification; transitioning traffic from individual motor cars to public transport and non-motorised traffic; protecting agricultural areas outside settlements to ensure security of supply; and balancing the safeguarding of natural areas with recreational needs.

The strategy of the Swiss Federal Office for Spatial Development (*Bundesamt für Raumentwicklung ARE, 2018*) guides spatial development and, in considering principles of sustainable development, targets the development of the national transport system and transport infrastructure as well as the federal government's energy policy objectives until 2030. The Swiss Spatial Concept (*Raumkonzept Schweiz*) is a strategic document, an orientation framework, and a decision-making aid for future spatial development. Its main objectives are promoting the quality of settlements and regional diversity, securing natural resources, controlling mobility, strengthening competitiveness, and living in solidarity. The Federal Act on spatial planning (*Bundesgesetz über die Raumplanung– Spatial Planning Act, SPA of 22 June 1979; Status as of 1 January 2019*) instructs the Confederation, cantons, and communes as to how to ensure the economical use of land and regulates where buildings are permitted, or land is protected. QoL is not an explicit goal of the Federal Act, but indirectly, most of its objectives contribute to securing and promoting good QoL. The Spatial Planning Ordinance (*Raumplanungsverordnung RPV vom 28. Juni 2000; Stand am 1. Juli 2022*) provides procedures and specifications to the cantons as to how they must implement the Spatial Planning Act. In accordance with the federal principle, each canton in Switzerland draws up its own legal basis for spatial planning based on the framework legislation of the federal government which then examines and approves the cantons' legal foundations (GFS CH, 2023).

Monaco's urban development is challenged by territorial scarcity; its land mass is but 2 km^2; as a result, the city is developing upwards as well as towards the sea and

belowground (water and energy supply, wastewater treatment, telecommunication services). Furthermore, the Government is constantly maintaining the quality of public areas, roads, traffic control systems, street lighting, parks and gardens, recreational areas, and pedestrian paths. Mobility is one of the central issues that affects both the sustainable development of the city and public health through its effect on air quality. At the same time, it is also a driving force behind Monaco's economic development. The long-standing Government policy in this area has already had considerable effects with regards to the balance found between the different ways of moving across Monaco. More importance is given to soft and decarbonized mobility (GFS MC, 2023).

Institutional framework for spatial planning

The main institutions responsible for spatial planning are usually ministries, ministerial departments (SI, IT, MC), or offices associated with spatial issues (CH, LI). Austria, France, and Bavaria have special bodies for spatial planning. The Austrian Conference on Spatial Planning (*Österreichische Raumordnungskonferenz, ÖROK*) is responsible for a national overview of spatial planning goals, prepares Austrian spatial development concept (valid for 10 years), spatial planning reports (every 3 years), provides information (*ÖROK-Atlas*), and gives strategic recommendations for spatial development, as well as coordinating EU Structural Funds, European Territorial Cooperation, Interreg programs, URBACT, and ESPON (GFS AT, 2023, ÖROK).

In France, the major national planning agency is the Directorate General for Development, Housing and Nature (*Direction générale de l'aménagement, du logement at la nature – DGALN*) which is under the responsibility of the Ministry of Ecological Transition and Territorial Cohesion. DGALN's main duties are developing, leading, and evaluating policies on urban planning, construction, housing, landscape, biodiversity, water, and non-energy minerals. It promotes sustainable development in all territories by ensuring that planning documents and development operations meet the needs of the population. The National Agency for Territorial Cohesion's (*Agence Nationale de la Cohésion des Territoires – ANCT*) main role is to enable local authorities to carry out projects responding to major regional development challenges and needs, such as revitalization of town centres and industrial fabric, strengthening public access to services of general interest, economic attractiveness, digital coverage, and employment (GFS FR, 2023).

In Bavaria, according to the Bavarian State Planning Act (*Bayerischen Landesplanungsgesetzes – BayLplG*), the federative state has transferred the spatial development tasks of preparing regional plans to the 18 regional planning associations (*Regionaler Planungsverbände*[10]), which are public entities that were constituted by the municipalities (*Gemeinden*) and districts (*Landkreisen*). The guiding principle of regional planning is sustainable spatial development, which is aligned with aims of objectives the Bavarian State Development Programme (*Landesentwicklungsprogramm LEP; see section c) of this subchapter*). Similarly, in Italy, spatial planning is the responsibility of the Ministry of Infrastructure and Sustainable Mobility, while tasks are carried out by administrative bodies (regions, metropolitan cities, municipalities) which implement governmental provisions in the planning field.

[10] List; in the Alpine space: Allgäu, Oberland, Südostoberbayern

Slovene spatial planning is the responsibility of the Ministry of Natural Resources and Spatial Planning, and its roles are to ensure that spatial policies are designed to meet the people's needs and promoting sustainable development based on the efficient and economical use of natural resources while also ensuring social wellbeing. The ministry strives to raise awareness of the Slovene inhabitants about the shared responsibilities that they have with regards to the preservation of natural resources as well as the management of physical spaces (GFS SI, 2023).

Monaco's spatial planning competencies are under the responsibility of Ministry of Public Works, the Environment and Urban Development (*Département de l'Equipement, de l'Environnement et de l'Urbanisme*) and the Department of Environment (*Direction de l'Environnement*). The ministry is responsible for public works and urban development, property construction, the environment, urban amenities, parks and gardens, and

quality of life, as well as the maintenance of state properties, the management of land, maritime and air transport authorities, and the control of public service concessions (GFS MC, 2023).

Switzerland's Federal Office for Spatial Development (*ARE – Bundesamt für Raumentwicklung*), indirectly contributes to securing and improving QoL. It can be described as a coordinating federal office that coordinates priority policies on "spatial development", "mobility", "agglomerations and rural areas" and "sustainable development" in close cooperation with thematically focused Federal Offices. The ARE also implements projects and programmes independently (GFS CH, 2023).

Liechtenstein's Office for Building and Territorial Planning (*AHR – Amt für Hochbau und Raumplanung*) is responsible for spatial and traffic planning, civil aviation, building laws, fire protection, and housing subsidies, and is also changed with balancing public, economic and private interest with settlement development, landscape protection, and the preservation of recreation and leisure areas. The institution is also focused on measures to unseal already sealed surfaces (GFS LI, 2023).

In Austria, two institutional arrangements are primarily responsible for spatial planning. First, is the federative states which issue their own spatial planning legislation. Besides spatial planning laws, they are also in charge of environmental assessment legislation, state development programmes, and tree protection legislation. The main ministry that is relevant for issues of spatial planning at the federal level is the Ministry of Agriculture, Forestry, Regions and Water Management. However, it has no legislative competence for spatial planning, but engages with topics such as water, forests, agriculture regions, spatial development, and food. Health and transport issues, which are relevant for QoL, are the responsibility of other ministries.

From this overview of spatial planning policies and organisations overview it can be concluded that there is a diversity of spatial planning traditions and approaches at regulatory and administrative levels within the Alpine Convention countries with regard EU framework policies, the *Territorial Agenda 2030* emphasises territorial cohesion and promotes balanced and harmonious territorial development across territories, builds on the diversity of places and subsidiarity to ensure future of all places and people in Europe (*Just Europe*), protects livelihoods, and shapes social transition (*Green Europe*); all of which impact peoples' well-being. In addition, spatial planning is profoundly intertwined with the development of the states. This is reflected in the development policies and complements the fundamental spatial planning frameworks. Quality of Life is usually not the central topic of either spatial or developmental policies, or the frameworks, guidelines and measures that come from them. Thus, it can be concluded that QoL is indirectly impacted by measures ensuring good conditions of living and natural environments, protecting the environment and integrating planning.

6.1.3 Regional and local levels

Policies steering QoL at regional and local levels are mostly the responsibility of regional and municipal authorities; all have some level of autonomy with regards to how to address them. CLLD/LEADER Rural development plan are part of the common EU agricultural policy and tis therefore followed by all EU Members as well as those in the AC. In addition, the regional and local authorities adopt development strategies (DE-BY, SI, IT), concepts (LI), schemes (FR), visions (CH) and action plans and programs (AT, SI) as executives.

In Austria, the regional level prepares most development programs, and concepts, however they might concern explicitly NUTS 3 areas but are other areas of similar size considered as regions. The local level, on the other hand, is very important for territorial development as it has most of the competencies for spatial planning and zoning. In addition, the Rural Development program (CLLD/LEADER) places primary emphasis on restoring, preserving, and enhancing ecosystems related to agriculture and forestry.

Austria aims to ensure sustainable farming management, including organic farming and climate actions. Many fields are the combined responsibility of the national level, federative state levels (*Bundesländer*), and regional levels (examples include, nature conservation, education, health, and transport).

In Germany, the federative government offers some national support to the regions (via the Competence Centre for Regional Development Cottbus) to provide equivalent living conditions. At the Bavarian regional level, regional strategies are undertaken by municipalities, districts, and regions. Connected to the spatial planning policies, 18 regional plans have been developed. Each county (NUTS 3) has a further elaborated forest function map as part of the regional forest function map, which describes different forest functions and protective functions.

Switzerland's' federal constitution and national regulatory framework grants each canton its own constitution and legislative powers. Based on cantonal instructions, the municipalities in the given territory implement the laws and strategies of the respective canton, create regions for common cross-communal issues and issue guidelines, which the cantons must approve. Swiss local development governance is, therefore, very decentralised and diverse. For example, the Canton of Bern's Office for Municipalities and Spatial Planning (*Amt für Gemeinden und Raumordnung – AGR*) is responsible for implementing cantonal spatial planning in cooperation with municipalities and regions. The office has a "Strategy 2030"[11], which explicitly mentions QoL as the overriding political goal. Furthermore, The Government Council's "Vision 2030 – governmental policy guidelines 2019–2022" specify that the objectives of The Canton of Bern are increase its resource strength and economic power, increase the population's QoL, strengthen social cohesion, and become a leading example when it comes to meeting environmental challenges.

[11] Canton of Bern, Office for Municipalities and Spatial Planning of the Canton of Bern 2019: Strategy 2030. Bern

In Liechtenstein, the municipalities have different concepts steering QoL, for example, the capital city of Vaduz has a territorial planning policy (*Räumliches Konzept Vaduz, 2022*) and a sustainability concept (*Vaduz 2030 Nachhaltigkeitsstrategie*). Furthermore, the village administration (communes) promotes and realise the infrastructure designed to increase QoL, such as meeting points (GFS LI, 2023).

In Slovenia, at a regional level, regional development agreements signed by the municipalities in the region provide background for the preparation and adoption of Regional Development Programs (current period 2021–2027, *regionalni razvojni program*) which are prepared by Regional Development Agencies. Each RRP sets out a long-term vision for the social, economic, and environmental development of its region. Additional national programs are available to provide developmental support for disadvantaged areas which either possess high unemployment rates or are border areas. At the local level, municipalities prepare the development strategies of the municipality and other strategic documents (sustainable development, tourism, education, health, culture, sport, local action group strategies, transport, local energy concepts etc.). In addition, some national development tasks are carried out at the regional level (regional scholarship scheme, entrepreneurship scheme, and so on).

The Italian Regional Development Programme is a planning instrument which identifies the general framework and strategies of regional community development. Regional and Provincial Sustainable Development Strategies (*SNSvS – Strategia Regionale e provincial per lo Svillupo Sostenibile*) consist of measures concerning governance and citizens' involvement, preparation and monitoring of such strategies, preparation of frameworks for planning the cohesion policy 2021–27, and policy evaluation at the local level. The Metropolitan Agenda for Sustainable Development (Agenda Metropolitana per lo Sviluppo Sostenibile) is an instrument for the integration and orientation of existing instruments that have already been adopted (it expands the sustainability scope of the Carta di Bologna 2017). For example, the Metropolitan City of Bologna agenda's main objective is to maintain and increase quality of life by developing a resilient and healthy territory.
At a regional level, France's normative scheme is the Regional Development, Sustainable development and equality of territories scheme (*Schémas régionaux d'aménagement, de développement durable et d'égalité des territoires – SRADDET*). Other regions have

interregional governance programs. Interregional governance of the French Alpine Massif (*La schéma interrégional de Massif des Alpes*) includes strategic provisions to improve QoL and explicitly refers to the quality of spaces and landscapes. In the same manner, the EUSALP refers to the quality of spaces and landscapes in action 6 and affirms orientations which are focused on QoL (quality of air, transports, services, alpine products, and rural development)

Although Monaco's national and local level geographically coincide, the responsibilities of the two levels differ. The municipal level's main responsibilities are ensuring social, cultural, educational and civil services for all generations, maintain public areas (green spaces, cemetery), and managing municipal public properties – but not including urban planning initiatives, public works projects, construction of buildings, green space, infrastructure or other projects changing the Monaco's appearance, which need to be supervised by the State Ministry (MC, 2023c).

6.2 Instruments addressing QoL

There are a number of measures and instruments that could improve the AC countries' QoL. They address different fields, administrative levels and legislative powers, and some are further described in this section. The causes utilized were highlighted by respective countries' representatives and the list is, therefore, not exhaustive.

The highlighted examples of instruments in the field of **public transportation**, are from Austria, Bavaria (DE), and Monaco. Austria has an integrated public transport system ticketing service called **KlimaTicket Ö**, which allows use of public and private railways and public transport in regional, cross-regional, or national areas for a year. The services aim to reach the Paris climate goals through a climate-friendly alternative to individual motorized transport, and this ticket facilitates individual mobility to a large extent. In addition, the North-eastern Austrian Federative States, Burgenland, Lower Austria, and Vienna have a common public transport network VOR – Verkehrsverbund Ost-Region. Its programme **VOR Flex**, is a demand-oriented public transport system which offers information and booking whilst also making paying for journeys easy and flexible. The municipalities implement the system and adapt it to their needs (payments, operating hours). Similarly, Bavaria (DE) has supported an expansion of local public transport through various programs. Via a funding programme that aims to improve rural mobility, the state supports local authorities in providing **demand-oriented mobility services** and **express bus lines**. Rural areas and the Alpine region benefit particularly from this (GFS AT, DE-BY, 2023). The CSA of Monaco, proposed passenger **transportation via sea** as a solution to congested roads and railways. The CSA sees the proposal as a viable option because the Principality has two ports in the city centre (CSA, 2018). In addition, Slovenia has established an integrated transportation ticket that makes it easier and more affordable for vulnerable people such as the young and the elderly to use public transport.

Environmental quality is ensured by various measures in the AC countries. The highlighted **environmental governance** examples which follows are from Italy and Bavaria. Italian legislative decrees (152/2016 and 104/2017) address Environmental impact assessments (EIA) and combine them with development, QoL, and environmental sustainability (Annex 6.1). Furthermore, The River Contracts (*Contratti di fiume*) are a useful instrument for the reconciliation of local interest in terms of QoL, the creation of integrated strategies, and the redevelopment and management of the river basins' environmental and landscape qualities. Similarly, the Bavarian Water Action Programme 2030 (PRO Gewässer 2030), provides an integral strategy for flood protection and natural water body development, foresees increased recreational functions and experience-ability of the water bodies through accompanying measures and environmentally friendly accessibility (GFS DE-BY, 2023).

The Federal government of Switzerland ensures measures promoting QoL via new regional policies (*NRP – Neue Regionalpolitik*), spatial planning policies, and nature protection policies (*Pärke von nationaler Bedeutung*), as well as through sustainable development programs (a non-exhaustive list of the same is provided in Annex 6.2).

The Slovene Social Welfare system ensures social assistance and benefits, and through so doing ensures a minimum standard of living for those in need whilst also providing subsidies for housing for low-income families in social housing programs. Furthermore, a universal health care system provides all residents with access to medical services and treatments, whilst the education system provides equal opportunities and access to education and knowledge at primary, secondary, and tertiary levels.

In terms of **participatory and climate governance**, Austria initiated the *Klimarat* project (Climate Council). Austria randomly selected citizens from all regions, social groups, education and income groups, and age groups (17–79), who have lived in Austria for at least five years, to form a representative Climate Council that would, over a period of six weekend, develop measures addressing key future questions on transportation, energy production and sustainable food production. The citizens were supported by scientists from different disciplines. The results of the Climate Council seek to create a climate-healthy and climate neutral Austria by 2040; the Climate Council's proposals were then handed over to the national government in mid-2022 (GFS AT, 2023).

The Bavarian State has set up several climate protection policies (Bayerisches Klimaschutzprogramm and Bayerisches Klimaschutzgesetz) in order to reduce at least 65% of the CO_2 equivalent of greenhouse gas emissions by 2030 and to ensure that the state becomes carbon neutral by 2040. Climate protection is a central prerequisite for QoL as well as prosperity of current and future generations. In addition, a Bavarian Climate Council (*Bayerischer Klimarat*) was set up in order to provide important impetus for the future orientation of climate policy in the state. Another important task of the Climate Council is supporting climate research in Bavaria (GFS DE-BY, 2023).

By adopting **The climate and Energy Plan** (*plan climat*), Monaco has set itself on path to lower greenhouse gas emissions by 55% by 2030 and reach climate neutrality by 2050, based on the reference year of 1990. The main objective of the plan is to combat climate change, adapt the territory to climate changes sustainably, and to build a resilient and robust territory for the benefit of its population and businesses (GFS MC, 2023).

The Liechtenstein political parties (VU), NGOs (*Lebenswertes Liechtenstein, Stiftung Zukunft*), and Foundations (*Hilti Family Foundation*) are supporting programmes for maintaining and improving QoL (a non-exhaustive list is provided in Annex 6.3).

TABLE 6.1
Examples of existing instruments in each of the AC countries.

	Topics	Instrument type	Instrument
AT	TRANSPORTATION	Integrated public transport system	KlimaTicket Ö
AT	TRANSPORTATION	Demand-oriented public transport system	VOR Flex (Verkehrsverbund Ost-Region Flex)
BY-DE	TRANSPORTATION	Demand-oriented public transport system	Call bus systems and express bus lines
MC	TRANSPORTATION	Sea public transport	Proposal for sea passenger transport
IT	GOVERNANCE / POLICY	Impact assessment	Environmental Impact Assessment
IT	GOVERNANCE / POLICY	Integrated management and development of water bodies and their landscapes	The River contracts
BY-DE	GOVERNANCE / POLICY	Integrated management and development of water bodies and their landscapes	PRO Gewässer 2030
BY-DE	REGULATIONS	Climate Change	Bayerisches Klimaschutzprogramm Bayerisches Klimaschutzgesetz
AT	PARTICIPATION	Participatory practices and bottom-up actions	Klimarat

6.3 Financial incentives and initiatives

Financial incentives in the AC countries primarily focus on: 1) rural and mountainous development, 2) energy transition, climate change adaptation, and mitigation and 3) investment opportunities, entrepreneurship, and tourism. The actions funded address QoL and well-being indirectly by enhancing citizens' living conditions. Initiatives usually take the form of actions and are introduced by public institutions. However, they are not necessarily monetarily based but can still motivate actions that contribute to better QoL within the Alpine region.

Financial incentives

The most generous financial incentives **address mountainous, remote and border areas**, and seek to secure continuous settlement and housing, whilst also providing services, preserving nature and managing landscapes, forestry, and agriculture. Usually, the funds are targeted at local communities, municipalities, or regions. Often, they are connected to specific policies which provide a governance framework, program, or financial background, e.g., the Swiss Federal Policy for rural and mountainous areas, the French interregional governance of Alpine Massif, The Italian National Strategy of Inner Areas (SNAI) and other Italian[12], Austrian[13], Slovene policies (further explained in Annex 6.2).

[12] 1. Italian National Mountain Fund; 2. Fund for the development of Italian Mountains; 3. The Italian Border Municipalities Fund, 3. Green Communities National Strategy (SNGC)

[13] Rural development programme (since 1979)

The French international governance of Alpine Massif co-finances calls for projects carried out by the regions which include committed partnerships between several territories and several partners in order to enable dynamic alpine cooperation. Similarly, many Italian funding opportunities address the preservation and development of mountainous areas, for example, SNAI – National Strategy for Inner Areas (financially supported by the European Structural Funds (ERDF, ESF, EAFRD) and national funds), co-finances local development projects tackling the demographic decline in remote, rural and mountainous areas (further opportunities are explained in Annex 6.2). The Bavarian Ministerial Funding instrument for Regional Management supports innovative projects at a regional and inter-municipal level that address at least one future issue (regional competitiveness, settlement, regional identity, climate change and energy, demographic change). Specific funding is available for converting military areas and projects dealing with land take reduction (for further see Annex 6.2).

Financial incentives targeting citizens directly, such as funding associated with EU cohesion policies, rural development programs and allowances paid in the context of agricultural policies, enable the further operation of mountainous farms and thus preserve traditional landscapes, alpine pastures, agricultural land, and village settlements, as well as rural towns.

In Liechtenstein, subsidies are available for densified residential construction which discourage single-family housing. Dispersed settlements lead to high costs for public administrations when it comes to providing infrastructure and services (electricity, water, wastewater) (GFS LI, 2023).

The second most common funding incentives address **energy transition and climate change** and seek to tackle the latter's impacts on local communities. For example, the Bavarian policy on multifunctional forests (see Annex 6.1) provides financial incentives via the silvicultural support program (WALDFÖPR) to forest owners and seeks to make forests more climate tolerant. In addition, through the *KommKlimaFöR* funding guideline, Bavaria provides financial support to Bavarian municipalities as well as partners of the Bavarian Climate Alliance (*Bayerische Klima-Allianz*) to implement climate protection projects (reduction of greenhouse gas emissions) and/or climate adaptation measures. The Austrian Federal Ministerial Climate and Energy Fund (see Annex 6.2) promotes and funds innovative projects that are focused on efficiency and sustainability, and aims to transform the energy system. The fund's total annual budget is 150 million EUR. The Slovene Eco Fund (Eko Sklad), is a public fund which promotes development in the field of environmental protection, and offers financial incentives (soft loans, grants) for environmental investment projects. The Eco Fund's different programmes target the general public, the public sector, NGOs, and businesses/entrepreneurs.

Furthermore, there are many small-sum funding options which primarily focus on raising awareness at the local level of municipalities, towns, and the public e.g. Austrian KLAR! *Vorbereit auf die Klimakrise, Klimabündnis, e5-Programm für energieeffiziente Gemeinden* (see Annex 6.2).

Monaco's incentives are related to decarbonization and mobility, and provide subsidies for electric and hybrid vehicles, as well as financial support via introducing price policies which limit price rise for households (to 15%) and for companies (to 35–45%) (GFS MC, 2023). In addition, there are incentives addressing **investment opportunities**, entrepreneurship, and sustainable tourism. For example, Liechtenstein Tourism actively promotes mountain areas, as destinations for tourists and financially supports infrastructure in, for example, in ski areas (GFS LI, 2023).

Initiatives

Initiatives at regional and local levels are supported in different fields that are intrinsically part of the QoL, as for example initiatives supporting municipalities and citizens on securing living conditions and infrastructures in remote mountainous communities or protecting the natural and cultural landscapes. Different funding options are available for EU Member States from various EU funds, cross-border schemes, CLLD/Leader programs, as well as national, regional, and local funds. Some of the initiatives are noted below:

The European regions (EUREGIOS) are **transnational regions** with an economic focus that promote cross-border cooperation and sustainable regional development through funded initiatives and projects[14]. Such cooperation is valuable for the border areas, as their accessibility towards inland centres can be low and, therefore, they may be more connected to neighbouring areas.

[14] E.g. Interreg Bayern Österreich

Furthermore, initiatives may **integrate local lifestyles**, economies, services and balanced tourism in interesting ways. An example of the same is the Mountaineering Villages[15], a supranational initiative, which has formed an alliance across the Alpine Convention area. The villages strive for permanent preservation and the establishment of protected areas, as well as promoting a tourism offer that sustains alpine traditions. Participating municipalities take an active role as partners in the maintenance and development of these areas (public transport, needs of citizens and guests). Moreover, in Bavaria, the Achental, created an eco-model (*Ökomodell Achental*), which integrates local agriculture and forestry, trades and crafts, gastronomy and tourism to maintain and improve QoL in the valley by focusing on preserving the natural and cultural landscape, the operation of small farms, nature-friendly tourism and trade, and through using local renewable energy sources.

[15] DE: Bergsteigerdörfer / SI: Gorniške vasi / IT: Villaggi degli alpinisti

Initiatives addressing **climate change** include the Bavarian Mountain Forest Offensive (*Bergwaldoffensive BWO*) which is a unique programme within the Bavarian forest administration that uses a strong participatory approach. Its primary aim is to raise the resilience of mountain forests, to find applicable solutions to climate change, and to raise awareness about climate change and its risks to forests. Moreover, the Bavarian Ministerial Regional Management[16] supports initiatives and projects; there are currently more than 60 initiatives and nearly 200 projects[17] which address QoL issues including housing, accessibility, the ageing population, youth participation, local supply (*Kitzingen County – The Strategy for Demography*); enhancing the vitality of the region, providing social and mobility services (*Altmühl Jura County*) and promoting active citizenship (*Regen county: Arberland*) (for further see, Annex 6.3).

[16] The Bavarian State Ministry of Economic Affairs, Regional development and Energy

[17] The Projects Data Bank

How to **attract young people** is being addressed by the French AlpSattelites, which is at analysing opportunities and challenges **for transitioning to hybrid work**, telecommuting and co-working in remote satellite working ecosystems. New inhabitants would work virtually while enjoying the QoL in the Alps and revitalising the area.

6.4 Monitoring systems for QoL and responsible institutions

No AC country has an institution that is specifically dedicated to measuring QoL or well-being. Most commonly, the national statistical offices or different governmental bodies monitor, collect data, and research different aspects of QoL. Partial monitoring of specific aspects of QoL is also conducted through various institutions and organisations (e.g. national institute of public health, environmental agencies and research institutions). Each country/institution has developed its own approaches and concepts to measure QoL/well-being, and how it is periodicity disseminated is further described below.

At the international level, Austria, Germany, Italy, France, Switzerland, and Slovenia collect and report indicators at the national level for the 12 dimensions of the OECD Better Life Index study. The Swiss Federal Statistical Office (since 2014) provides the Swiss data to the OECD. In this context, context, the notion of QoL covers a broader and multidimensional approach which encompasses health, mobility, work, income, and security. Altogether, in Switzerland they commonly name this with words *Wohlfahrt* (welfare), or *Wohlbefinden* and *Wohlergehen* (well-being).

The annual study "How is Austria? (*Wie geht's Österreich?*) by Statistics Austria measures material prosperity, subjective well-being and satisfaction, and the environment. The study has been updated annually since 2012. The study strongly addresses the links between QoL and tourism in the municipalities so as to better understand perceptions of tourism balance/excess. The time-use survey (*Zeitverwendungserhebung*) is carried out by Statistics Austria in intervals of approximately 10 years, the latest having been in 2022. The EU-SILC (European Union Statistics on Income and Living Conditions) is an annual survey in which Austria has participated since 2003. There are no standardized regional studies on QoL, only local case studies within scientific surveys, such as the public's opinion on regional development, inter-communal cooperation, participation, tourism, QoL, and so on. In addition, the *ÖROK ATLAS* has been, since 2004, a regional monitoring system with indicators which address spatial and developmental topics that are indirectly associated with QoL, while the Environment Agency Austria (EAA, *Umweltbundesamt*) measures environmental quality. Furthermore, The Gender Equality Index (*Gleichstellungsindex*) has, since 2021, measured equal opportunities among men and women, in all regions in Austria.

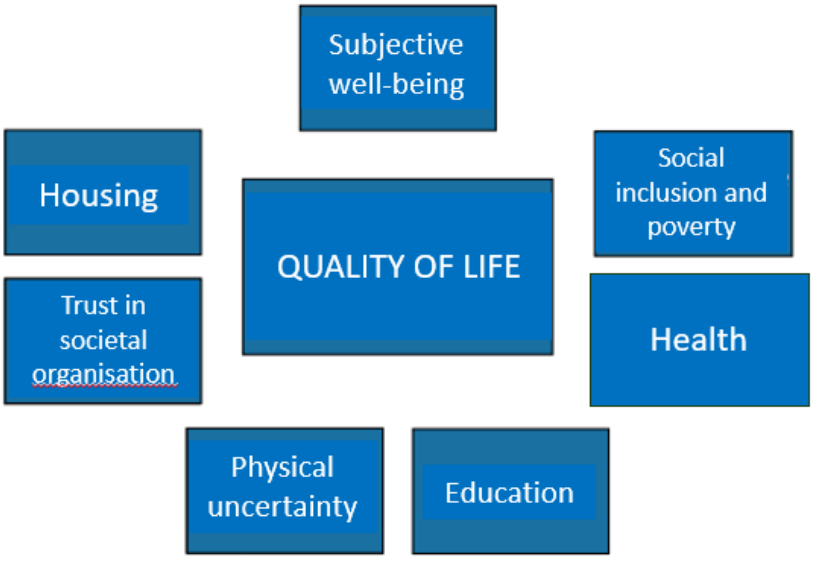

FIGURE 6.1
Austrian concept of monitoring Quality of life. (Source: Statistics Austria)

At the federal level in Germany the equivalent living conditions check-up instrument was introduced for checking if the new federal laws might worsen the living conditions in remote areas. The regular report was last published in 2021 (*Politik für Gleichwertige Lebensverhältnisse*). At the federative state level, the Bavarian State Government conducted a QoL survey (*Heimatspiegel 2022*). The main research questions were: How satisfied are Bavarian Residents; Which factors are particularly important, for achieving high QoL, and what does *"Heimat"* mean? The survey results will be integrated into future decision-making processes and measures. Furthermore, the Federal Office for Building and Regional Planning (*Bundesamt für Bauwesen und Raumordnung*), issued the study at local levels, thereby addressing the Quality of Life in small cities and rural communities (*Lebensqualität in kleinen Städten und Landgemeinden, 05/2011*), as well as in small towns in Germany (*02/2022*).

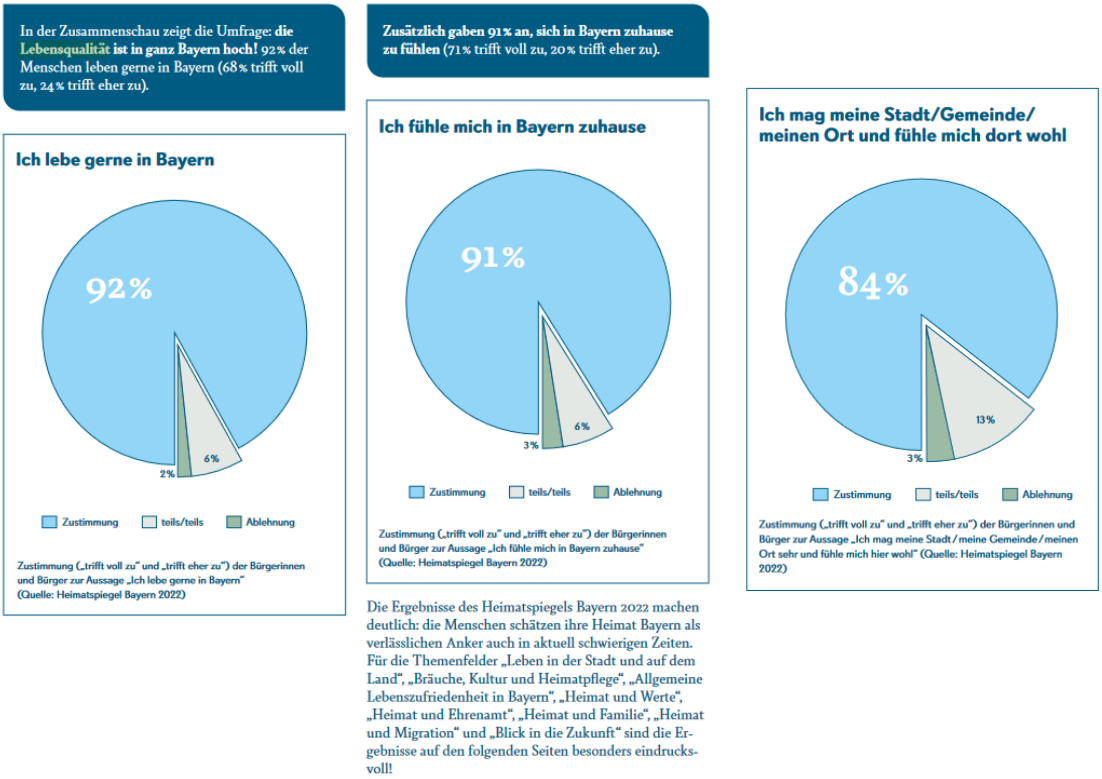

FIGURE 6.2
Examples of results of the survey conducted in Bavaria. (Source: Heimatspiegel Bayern)

The Liechtenstein Institute conducted two studies on satisfaction and QoL: *LIE-BAROMETER* (2019 and 2020). Furthermore, the NGO Stiftung Zukunft, conducted a study on economic growth, the environment and QoL *Wirtschaftswachstum Trilemma zwischen Wachstum, Umwelt und Lebensqualität* (2022).

The Slovenian Statistical Office annually measures QoL indicators (SURS *Kvaliteta življenja*) and well-being (SURS *Blaginja 2022*). Moreover, The Republic of Slovenia issued a report on the well-being indicators (*Kazalniki blaginje*), which covered material, social and environmental well-being for the period 2011–2013. The Environmental indicators in Slovenia are monitored by the Slovene Environmental Agency (ARSO). Furthermore, under Slovenian presidency of the Council of Europe in 2020, the Atlas on Quality of Life was published, which covered in detail various QoL indicators at municipal and regional level (ESPON Atlas on Quality of Life).

FIGURE 6.3
Theoretical concept of well-being as a ground for measurement by the Slovenian Statistical Office. (Source: SURS)

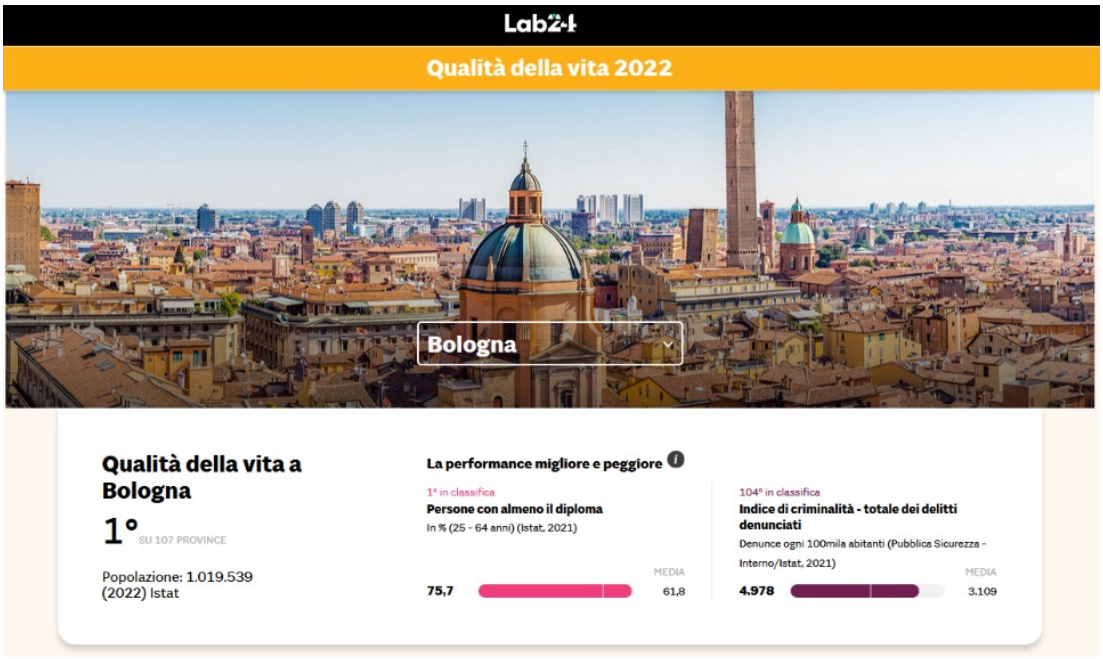

FIGURE 6.4
Example of measurement of Quality of Life by the newspaper IlSole24Ore which monitors the most liveable provinces in Italy. (Source)

The Italian ISPRA and ISTAT monitor specific elements and aspects of QoL and indicators connected to well-being. The Italian Institute for Environmental Protection and Research ISPRA (*Istituto Superiore per la Protezione e la Ricerca Ambientale*) provides a report on Urban Environmental Quality (*Qualità dell'Ambiente Urbano*). Furthermore, the Steering Committee Cabina di regia Benessere Italia is monitoring some institutional instruments related to QoL, oversees welfare policies, and evaluates citizens' QoL. Italy has numerous other studies and rankings based on different indicators and criteria which have been conducted by different organisations. For example, the national economic newspaper *IlSole24Ore* provides QoL rankings for the most liveable province (*La classifica delle province più vivibili Qualità della vita*), whilst the *Avvenire* newspaper provides its own *BenVivere* report; the Legambiente, an environmental association provides a ranking of italian cities *Ecosistema Urbano*.

At a national level, France has tried to establish new reporting on wealth since 2009. The new alternative indicators of wealth have been discussed by two governmental cabinets; those of Sarkozy and Hollande. The first, under the presidency of Sarkozy, proposed measurements related to 1) GDP issues, 2) Social well-being/quality-of-life, and 3) Sustainable development and environmental issues. The second, under the presidency of Hollande, adopted a law (*LOI n° 2015–411 du 13 avril 2015*) which considered alternative wealth indicators in the definition of public policies. An annual report on the evolution of the 10 new indicators considered the economy (employment rate, R&D, Public and private debt), social issues (Healthy life expectancy, Life satisfaction, Income inequality, Early school dropout) and environmental issues (carbon footprint, land artificialization, waste recycling). These indicators are also part of the international reporting on the national achievement of SDG's UN Agenda 2030. Furthermore, they are continuously monitored by the French National Institute for Statistics – INSEE and the National Agency for territorial cohesion (*Agence National pour la Cohésion des Territoires – ANCT*); and additionally published in Observatory of the Territories as part of the regional monitoring. The same observatory also issued the Report on the quality of life in 2014 (*Rapport 2014: Qualité de vie, habitants, territoires*). Since 2016, the French Observatory of Well-being (*Observatoire du bien-être – CEPREMAP*) has measured the well-being of French people in two observatory dashboards: 1. A quarterly dashboard on well-being, based on the 20 questions asked as supplementary questions to the INSEE (French Statistical Office) monthly household survey (CAMME) of a representative sample of approximately 1800 people; and 2. The barometer of French morale, which based on an analysis of Twitter posts. Researchers from different institutions, affiliated with the observatory, work on measuring subjective well-being and its determinates, such as education, health, social relation, trust, economic environment etc. Three reports have been published so far; in 2020, 2021, 2022.

Since France's national and regional development measures and instruments do not entirely follow the aforementioned new wealth indicators, the initiatives by the public institutions at regional, local and municipal levels have tried to set up alternative QoL indicators, using participative methods, as a base for new public measures of the improvement of QoL. The Metropole Grenoble developed the sustainable territorial well-being indicators (*IBEST – Indicateurs de Bien-être Soutenable Territorialises*), which aims to measure what counts for people in terms of well-being. They identified 8 dimensions: work and employment, assertiveness and commitment, democracy and living together, natural environment, health, access to public services, time and pace of life, and assistance needs. The *SPIRAL – Societal Progress Indicators for the Responsibility of All*, a bottom-up methodology of the Council of Europe, was used to define the IBEST indicators. The inventory of well-being and living conditions of the Grenoble Alps Metropolis inhabitants consists of quantitative survey data (sample 1.000) supplemented by information gathered

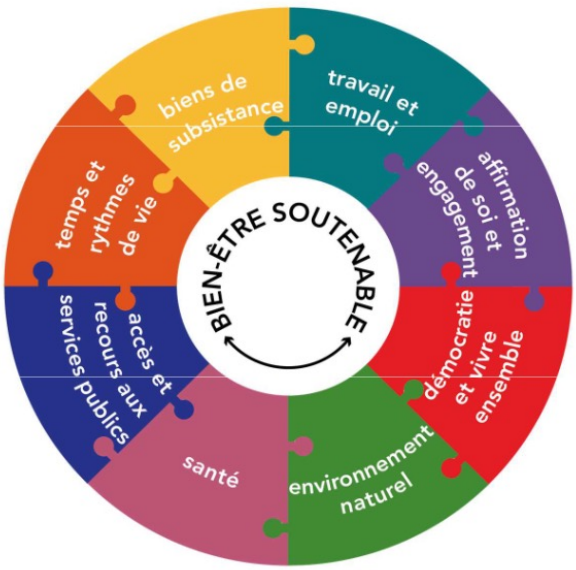

FIGURE 6.5 Concept of measuring well-being as set up by the Metropole Grenoble, the so-called IBEST – Indicateurs de Bien-être Soutenable Territorialises. (Source: IBEST, 2018)

during open forum and participatory processes with citizens, technicians, and elected officials. Three evaluations using IBEST have been conducted in the past five years, and these have sought challenge policy objectives and evaluate interventions in terms of the well-being of the people. Further French examples are described in the Annex Table 1.2 (GFS FR, 2023).

Monaco Statistics IMSEE oversees the collection of data across different parameters and publishes the annual publication Monaco in Figures (*Monaco en Chiffres*). This also includes a chapter on the living environment *'Cadre de vie'*, which is also included in sectoral strategies (GFS MC, 2023). The annual report also includes other chapters addressing QoL parameters, such as the environment, employment, population, the economy, and so on. The IMSEE also publishes various annual observatories on issues such as employment, the economy, real estate, industry, and so on (MC IMSEE, 2023).

6.5 Identified gaps

As a result of governance analysis, the gaps in governance framework for QoL are identified. The gaps are an input for the preparation of recommendations which follow in the next step of the preparation of RSA 10. The gaps were identified by WG members during the Radovljica June's 2023 meeting. Further elaboration of the gaps can be found in Chapter 8 of this Background Study.

The starting point of the RSA 10 preparation; that countries have various approaches concerning understanding, legislation and regulation when it comes to addressing QoL and wellbeing was also confirmed by this analysis. Having the whole AC area in mind, QoL needs to be addressed in a supranational context more coherently, as currently, there is no common governance framework on QoL in AC. Alpine countries have different frameworks at different territorial levels (e.g. national/regional) which are characterised by cross-sectoral and interdisciplinary approaches. The AC multi-annual programme is recognised as a good example of a governance framework policy, and AC climate and other thematic bodies' activities overlap the QoL topic as well. Overall, such diversity is generally understood as positive, but more integrative actions should take place to join together the efforts of several bodies which are active within AC. The AC can also serve as a mobiliser or provider of data on QoL, and as a promotional channel by which to provide support towards achieving a common approach to guiding and monitoring QoL. Furthermore, there is no common baseline among the AC countries, since not all of them are members of the same international organisations. Switzerland is not in EU, but reports to the OECD, while Liechtenstein and Monaco are part of neither the European Union nor the OECD. This leads to gaps in knowledge and data) on multiple levels. Consequently, useful knowledge of sufficient quality for policy-making is not generated. The AC could integrate the monitoring systems of the member states which could consider the specific characteristics of the Alpine area.

One of the general weaknesses of QoL is its dispersion between several sectors since no sector has an "umbrella" role to prepare and implement policies related to QoL. Such a role could be granted to spatial or development planning as is evident from some of the AC signatory member countries.

Furthermore, there is no common understanding or comprehension of QoL concepts since terminology derives from linguistic foundations, personal beliefs, political views, and so on. As a result, it is difficult to interpret and formulate. Another dichotomy related to the concept is that it allows both objective monitoring and subjective perceptions. People tend to perceive QoL in the moment rather than understanding its long-term development, and therefore prioritize projects that deliver short-term results rather than strategic improvements. It follows, that some efforts should be put into synchronizing the use of QoL as a term, as well as its understanding within the AC framework.

To better address QoL across the Alpine area, a strong vertical structure is necessary which considers all levels, from supranational to the local, as well as cross-border. Policies and measures should not stop at national borders because people and resources move across

borders. There is a lot of soft legislation (conventions, frameworks, recommendations, guidelines and so on), but these are not accompanied active implementation and they are not efficiently/understandably transferred to the local level. It follows, that there is a lack of targeted and place-based specific QoL policies. The municipal level should have more QoL-related policies and measures but there is also a need to ensure that too much local power or lack of upper-level supervision does not lead to the emergence of clientelism, corruption, or a lack of procedural transparency. The regions show different capacities when it comes to following through their development policies; some regions are more proactive and get more projects/investments. Public participation is often seen as an obstacle.

The governance framework overview exhibits not only weaknesses but also the strengths of the current framework to secure QoL in the Alpine area. Some of the strengths were also identified as weaknesses. For example: the lack of a common governance framework is a strength, allowing a variety of approaches to tackle QoL, but most do not target QoL specifically, and it thus also a weakness at the same time. The cross-sectoral and interdisciplinary approach of the governance framework might be beneficial, but its coordination could be problematic due to a lack of a supervising body (e.g. a single ministry).

7 OVERVIEW OF GOOD PRACTICES

7.1 Overview of collected examples

The purpose of the good practice collection (see Annex 1.7) was to prepare an overview of potential measures, instruments, and initiatives that could contribute to securing better QoL in the Alpine area. Further focus was given to the measures that can be implemented via spatial planning or refer to regional planning, and are relevant and applicable in the Alpine context (e.g. dispersed settlement, mountainous area, declining demographics). As QoL is becoming an increasingly pertinent topic in the Alpine area, some examples of good practices can already be noted and these were identified in the governance framework questionnaire. Among them are:

- **Multifunctional forests** (DE, Bavaria) – several policy tools exist to conserve, sustainably use and adapt forests in times of climate crisis and thus their impact on QoL.
- **The Swiss Federal Policy for rural and mountainous areas** (CH) – coherent spatial development, aligned with the Swiss spatial concept seeks to maintain and strengthen internal cohesion in Switzerland whilst further connecting the mutual interdependencies that exist between urban, rural, and mountainous areas.
- **New Regional Policy** (CH), support for mountainous regions, rural areas, and border regions to cope with changes in economic structures.
- **Parks of National Importance** (CH) – preservation of rich landscapes, biodiversity and cultural resources and increasing the parks' sustainable economic and social development.
- **The French interregional governance of Alpine Massif** (FR) – promotion of living well in the mountains, adapting lifestyles to climate change, and financial provisions to improve QoL, with the aim of increasing solidarity, services, mobility between cities, valleys, villages, and ski resorts.
- **Indicators 21** (FR) – development model which considers natural resources and human well-being.
- **Agenda 21**, adopted by Region Pays de la Loire (FR); programme for sustainable development.
- **Environmental Impact Assessment** (EIA) and Strategic Environmental Assessment (SEA) as tools for considering development, QoL, and environmental sustainability in the policy making process.
- **Legislative Decrees 104/2017 and 152/2016 (IT) promote quality of human life through preserving and improving environmental conditions** and the prudent and rational use of natural resources.

However, since the questionnaire was filled in only by the ministerial representatives and equivalent, we have stretched the query to all members of the WG to determine examples which target at least one of the QoL RSA 10 identified topics; environment, infrastructure and services, work and financial conditions, social relations, and governance. Each of the good practice examples is described with the following elements: name of the measure/project, QoL topic, stakeholders in charge of implementing measure, time frame, location or area, description of the measure, description of (potential) impact on quality of life, target groups, funding, and a link to the (given) project's website. More detailed description of good practices is available in Annex 7.1.

Based on the inquiry, twenty-four good practices were collected. Of these, eleven are international and thirteen are national or local projects. Seven of the good practices are topic focused Interreg projects. In total, six are institutional or monitoring projects, seven are research projects, and eleven are 'on-the-ground' projects. Only nine projects are not supported by supranational funding, of which the EU is the primary contributor. Three projects are funded by all four governance levels, two combine supranational funds with national, and two supranational with local sources. Most projects that do not receive supranational funds are supported by national funding, e.g. the Bergwaldoffensive project by the Free State of Bavaria, and project Dialogues on wolves by the German Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection. MARO Housing is the only project which is funded only by private investors.

The noted projects mostly address multiple quality of life aspects, as defined by the RSA 10 framework (see Figure 7.2). Most projects (six) address a combination of two QoL topics, and six only focus on one topic. Three projects address all five QoL topics as designated for RSA 10. The most addressed topic is the quality of infrastructure and services (sixteen out of twenty-four projects), while quality of the environment, social relations, and governance are the focus of twelve to fourteen projects. Least addressed is quality of work and financial security, which is the focus of only eight projects.

The projects also address a variety of target groups; only three projects have one specific target group with most focusing on two to six target groups. Five projects are not target group specific, as they address over ten target groups altogether. The most mentioned target groups are citizens, enterprises, regional or local authorities, farmers, and NGOs (all

Project name	Area	Organisation	Type	Institutional	Topic focused	On the ground	Funds	Supranational	National	Regional	Local
Bergsteigerdörfer	Int.	Collaboration		■				■	■	■	■
Bergwald Offensive	DE	National		■					■		
KARE	DE	Regional		■					■		
Reg. health resolution	DE	Regional		■					■		
Biosphere Reserve	AT	UNESCO		■				■	■	■	
smartAltitute	Int.	Interreg		■				■			
Dialogues on wolves	Int.	Cipra			■				■		
Amigo	Int.	Cipra, Interreg			■			■			
AlpSib	Int.	Interreg			■			■			
CESBA Alps	Int.	Interreg			■			■			
SmartVillages	Int.	Interreg			■			■			
LOS_DAMA!	Int.	Interreg			■			■			
PlurAlps	Int.	Interreg			■			■			
Tu was, dann tut sich was	AT	Interreg				■			■		
4 Gemeinden, 1 Lebensraum	AT	Local				■		■			■
KastlGreissler	AT	Private				■		■	■	■	■
EuroRegioFamilyPass	Int.	Regional				■			■	■	
Digital Alpine Village	DE	Interreg				■			■		
MARO Housing	DE	Regional				■					
Sei mein Schatz!	Int.	Interreg				■		■	■		
SmartLand	DE	Interreg				■		■	■		
Station 4 Transformation	IT	EUI				■		■			■
ZUMGLUECK.JETZT	AT	Local				■		■	■	■	■
Area-Conscious Town	DE	Local				■			■		■

FIGURE 7.1 Projects of good practices in Alpine space by their area (country; international), leading organisation, type (institutional or monitoring; research; implementation project) and funding (supranatural; national; regional; local).

addressed by 10 or more projects), followed by children, tourists, youth, elderly, migrants, women, students and unemployed. Some rarely addressed target groups are workers (w), owners (f), patients (p), and educators (e). The most narrowly focused projects are Smart Land (regional and local authorities), Dialogues on wolves (Farmers), Bergwald Offensive (farmers and forest owners), Amigo (workers and enterprises), KARE (regional and local authorities), MARO (citizens and elderly) and Sei mein Schatz! (citizens and regional and local authorities).

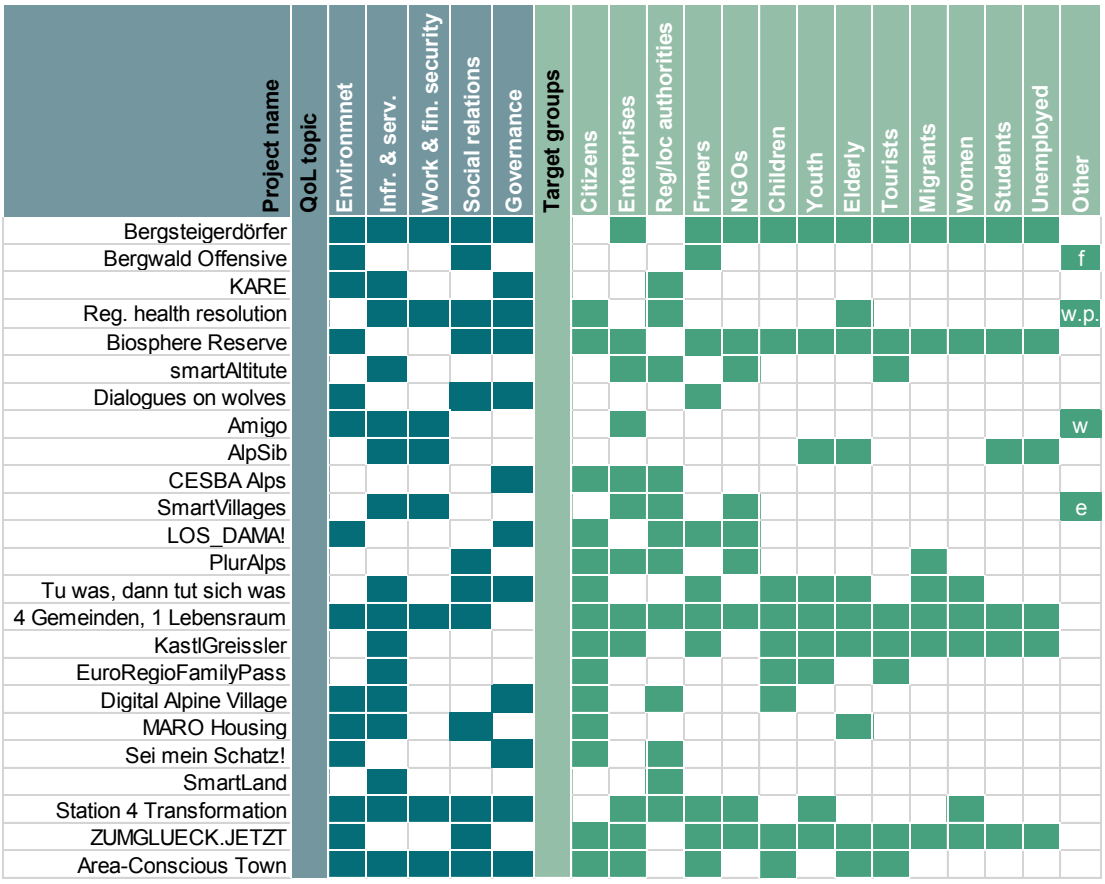

FIGURE 7.2
Projects of good practices according to the quality of life topics and target groups they address.

7.2 Institutional or monitoring projects

Bergsteigerdörfer or Mountaineering villages is understood as a seal of quality for towns and municipalities in the Alpine area. Applicants have to fulfil a strict catalogue of criteria – there are mandatory criteria and target criteria as well as exclusion criteria – before they are allowed to officially carry the designation. The main contents or principles of the mountaineering villages initiative are:

- Preservation of local culture and tradition;
- Sustainable tourism without technical development measures, a small number of high-quality accommodation establishments and a focus on a sophisticated range of mountain sports;
- Typical countryside development;
- Sustainable mountain and forestry management with a focus on the production and marketing of local and regional products;
- Active nature and landscape protection;
- Soft mobility and extensive renunciation of motorized traffic;
- Communication and exchange of information among each other.

One of the desires of the mountaineering villages is that they wish to realize the goal of sustainable development in the Alpine region in harmony and compliance with relevant legal provisions and programmes. The ongoing project was started in 2008 by the Austrian Alpine Association's Department of Spatial Planning and Nature Conservation. So far 38 municipalities in the area of the Alpine Convention have been rewarded the seal of a Mountaineering village (see Figure 7.3).

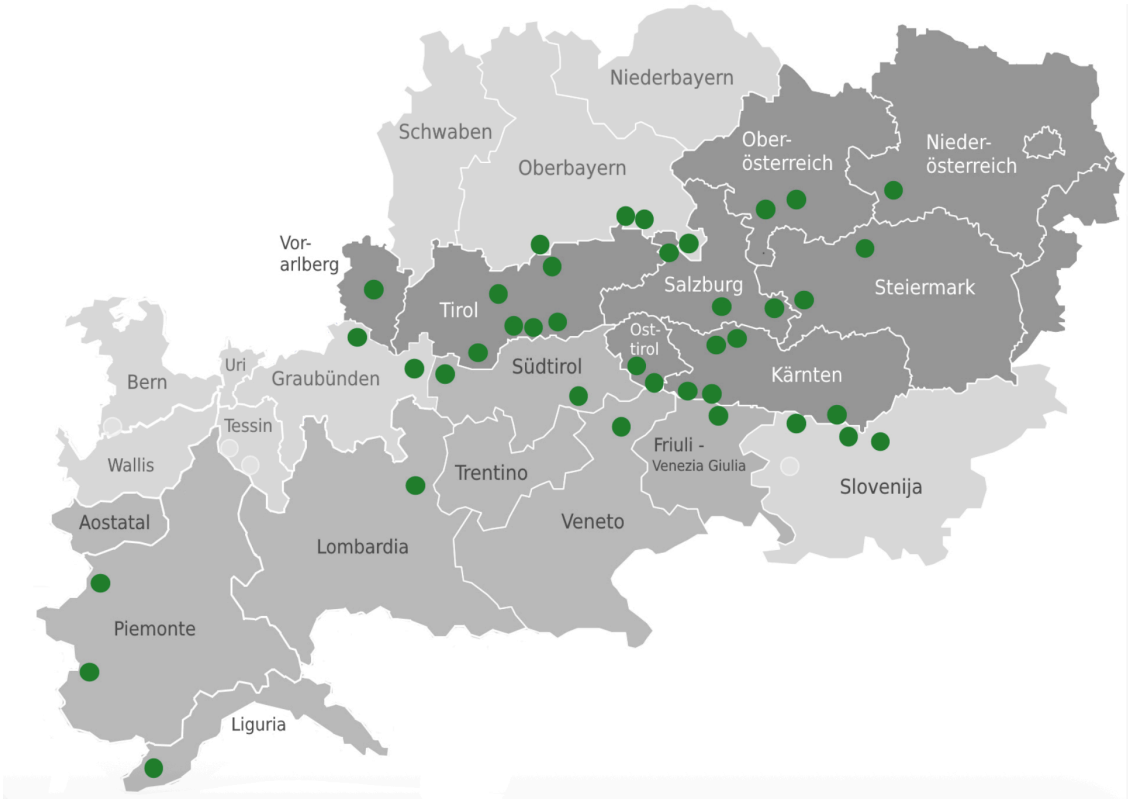

FIGURE 7.3
Mountaineering villages. (Source: Bergsteigerdörfer)

The Bergwaldoffensive (BWO) is a Bavarian State initiative which seeks to enhance measures to enable forests in the Alpine region of Bavaria to adapt to climate change. The BWO is part of the Bavarian climate adaptation programme and covers the whole Bavarian Alpine region. It has existed since 2008 and supports private and municipal forest owners with various measures regarding forest management, stakeholder participation, awareness raising, and knowledge transfer. The participatory approach and project-based character of BWO is unique within Bavarian forest administration. Special staff members based at local forestry offices plan and manage projects in defined project areas to raise the resilience of the mountain forests therein. They bring together stakeholders and society to balance competing interests (round tables) and find applicable solutions as well as raising awareness about climate change and its risks to mountains and protective forests. Resilient mountain forests protect quality of live in the Bavarian Alpine region.

The Oberland is one of six model regions in Germany that is supported as part of the BMBF funding measure RegIKlim (Regional Information on Climate Action). It independently and proactively develops and implements adaptation measures tailored to the regional context by building knowledge. In order to develop suitable protection, precautionary and adaptation measures, the KARE project analyses both the risks arising from climate change and the socio-economic developments and land use that significantly determine current and future vulnerability trends and adaptation requirements. Together with regional practitioners and political actors in the two pilot municipalities of Garmisch-Partenkirchen and Weilheim, planning-relevant instruments for municipal risk management and climate change adaptation will be developed, tested, and transferred to other municipalities to assist local decision makers.

The Regional Health Conference Southeastern Upper Bavaria (Regionale Gesundheitskonferenz Südostoberbayern, Planungsregion 18) looked into an increasingly important regional issue; the spatial organisation of healthcare areas. Through passing a resolution, it was determined that although the current division of service areas into centre areas is a step in the right direction, the service areas are still too large and impractical. As a result, a proposal for a new demarcation was presented, which would better meet the needs and circumstances of the region in question. Based on the criteria developed and the methodology of the procedure, the demarcation could be transferred and adopted to other regions.

The UNESCO biosphere reserve concept is a comprehensive protection and development instrument. Since it combines protection and (land)use and includes people of the region, it is tailor-made for cultural landscapes with high natural values. The BR management therefore organizes nature conservation projects where habitats and species need this protection and also initiates projects and initiatives which contribute to a more sustainable economy. Zoning the region into core zones (natural zones), maintenance zones (buffer zones) and development zones (transmission zones) supports these aspirations. The impacts are visible and perceptible in the landscape and make, therefore, a direct contribution to the quality of life of the population whilst also acting as motor for sustainable regional development. Among objectives are better ecosystem-services, more possibilities for sustainable tourism and leisure stays, better regional products and sustainable circular economy, as well as improved air and water quality.

The SmartAltitude project is based on the premise that Alpine territories can adopt adaptation and mitigation strategies. Such strategies anticipate and reduce the adverse effects of climate change. The design and adoption of these strategies can help ski resort operators and policy-makers of mountain regions to deal with new climatic conditions. The new measures and activities can build a new model for alpine winter tourism. The SmartAltitude toolkit, developed by partners from Austria, France, Germany, Italy, Slovenia, and Switzerland includes tools to perform audit, set priorities, and plan, as well as implement, monitor, and communicate strategies.

7.3 Topic focused projects

Among the eight collected research projects, seven are Interreg projects supported by the European Regional Development Fund, one is an Interreg project implemented by CIPRA, and one is an individual CIPRA project. The CIPRA project Dialogues on wolves focuses on the wolf population in the Alpine space by providing support for coadaptation between humans and wolves, seeks to improve the conflict management skills of stakeholders concerned by the issue of wolves, herd protection and humans, and also seeks to preserve and promote biodiversity in the Alps. The Interreg projects focus on a variety of topics covering demography, mobility, digitalisation, sustainability, and climate change.

Due to **demographic changes and economical challenges**, the social sector in most Alpine countries has suffered considerably. The resulting restricted financial resources cannot satisfy the needs either of the **ageing population** or the increasing number of NEETs (**young people** not in education, employment or training). These growing societal challenges need social innovation and a new social economy, which connects the public-private-third sectors: the AlpSib project addresses NEETs' and seniors' needs by introducing innovative solutions, such as social impact investments (SII), social impact bonds (SIB) and a Social Impact Investing Hub for knowledge sharing and policy coordination.

In addition to internal demographic changes, there are also strong **migration flows** from and into the area of Alpine space. The PlurAlps project addressed cultural pluralism as a strength of the Alps. The pilot regions demonstrated how integration can succeed with the help of municipalities, companies, and civil society. These experiences can now inspire others while giving insights into how to set up successful and sustainable integration projects. The project partners developed an instrument for social planning

in municipalities that helps to improve quality of life for the population and immigrants. Another relevant Alpine issue is strong **daily commuting** between rural and urban areas, as well as between regions and/or countries. Project Amigo focuses on active **mobility** and the reduction of cross-border car traffic in collaboration with enterprises and workers in the Alpenrhein-Bodensee-Hochrhein region.

The CESBA Alps project generated the first tool for the **sustainable development assessment of territories** using a common methodology and a list of 280 indicators, which enabled the local standards and degrees in the sustainability field defining for each assessment criterion on a territorial performance scale. Moreover, CESBA Alps defined 18 Key Performance Indicators which were in line with the UN 2030 Agenda and the goals of the EU strategy for the Alpine region (EUSALP) to assess the sustainability of territories at a transnational level. The possibility to implement new measurable, verifiable and reliable indicators and assessment tools at a territorial scale, will increase the quality and level of implementation of low carbon policies. The population in general would benefit from a more sustainable and liveable built environment.

Alpine **rural communities** often lack good provision of services as well as a favourable climate for entrepreneurship and social innovation. **Digitalisation** is a promising approach to counter the situation, but is underexplored in the Alps due to poor infrastructure. SmartVillages unlock the potential of local actors to make their regions more attractive places in which to live and work through new forms of stakeholder involvement, and by bringing together policy makers, business, academia, and civil society. Finally, the transfer of project results to the policy level can contribute to improving the political framework conditions for digital innovation. The situation and challenges are different in Alpine **urban areas**. Land use pressure is dramatically increasing as Alpine cities grow and transform. In metropoles such as Munich, around 8.500 flats are built every year to accommodate the 10- to 15.000 new inhabitants who have moved to the metropolitan area. Green spaces in and around cities are in high demand. LOS_DAMA! unleashed the potential of peri-urban green infrastructure for sustainable development, by improving governance and planning in this domain. The project partners cooperated to protect liveable open spaces while also connecting people and green spaces throughout the Alpine region.

7.4 On the ground projects

In some cases, research projects manifest in on-the-ground implementation projects. Sei mein Schatz! or Be my treasure! is one of the pilot projects of the Interreg project LOS_DAMA! And has the goal of strengthening green infrastructure in the growing metropolitan regions of the Alpine region. This was the pilot project of the City of Munich and had the slogan ***"Adding value to the landscape!"*** Among other things, a landscape treasure map was created (see Figure 7.4). The treasure map and its development process were met with great interest and were extended to green spaces north of Munich in the "Be my treasure!" project. The deepening of the content and the spatial expansion were made possible by the so-called “docking funding” of the German Federal Transnational Cooperation Programme.

Similar was the case of the Interreg project SmartVillages for the digital transformation of rural communities in the Alpine region. The project brought many insights with regard to the organisation and financing of digital networking and the financing of digital networking opportunities (e.g. civic taxi cabs and coworking spaces). With the aim of transferring the results of this Interreg project to two neighbouring municipalities (Friedenweiler and Eisenbach), the project partner Regionalverband Südlicher Oberrhein has received additional funding from the German Federal Transnational Cooperation Programme. The project named SmartLand included development of ideas on the topic of "digitization and quality of life" with citizens discussing possible implementation paths. As a result, a brochure with general recommendations for action targeting German cities and communities in rural areas has been published.

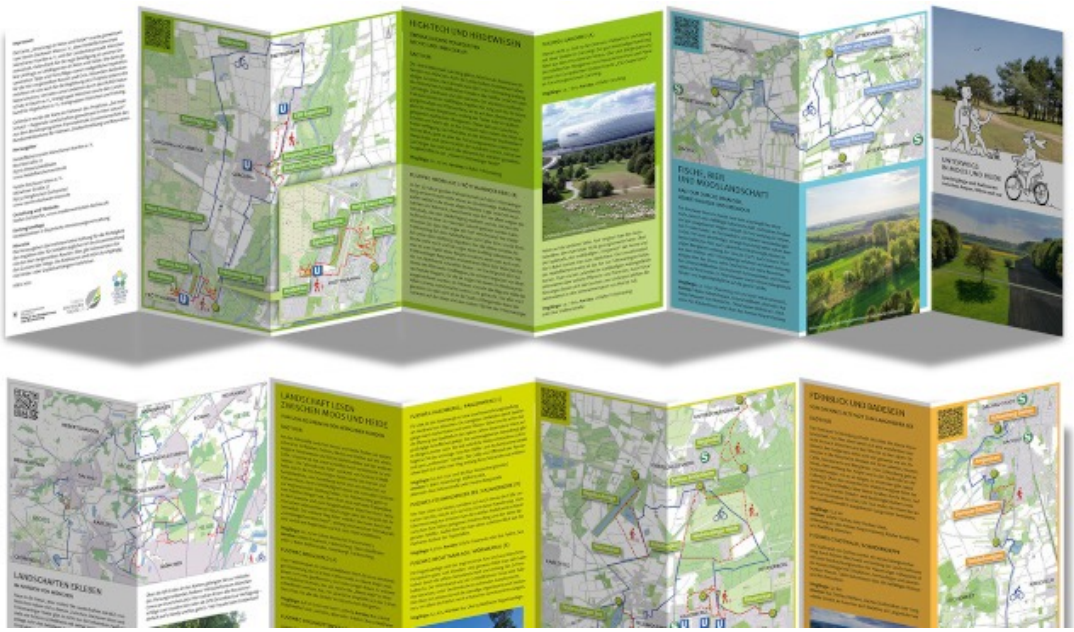

FIGURE 7.4
Sei mein Schatz! Maps.(Source: Stefan Gerstorfer)

Tu was, dann tut sich was (*Do something, then something will happen*) is one of first social festivals to have been held in Austria. The project was initiated by Clemens Sedmak together with a consortium of Austrian private foundations (the Sinnstifter). The festival's main objective was to encourage citizens to take their own initiatives. The social festival took place for the first time in Lungau in Salzburg in 2011 and then took place in the Steirische Eisenstraße, Mühlviertler Alm and Mostviertel-Mitte regions. The project aimed to enhance quality of life by (i) promoting the self-efficacy of people and communities, (ii) appreciating local knowledge, and (iii) tackling problems of poverty and social inequality. These aims have been implemented through project proposals submitted by regional populations.

In Austria, a project on grocery shopping within short distances has been initiated. Currently, in the whole country 19 KastlGreissler shops are in operation, 9 of which are located within the Alpine Convention area. This means that there is no need for a car, and people are encouraged to purchase high-quality food which is locally produced and often organic. The approach encapsulates local added value (support for small farms and manufacturers) and food security. This is achieved by the local supply of regional and daily needed products in self-service containers as well as in small venues in village centres; increasing the amount of purchased local products (strengthening local value chains), and securing local supply especially in rural areas.

The municipality of Moosburg in Carinthia presents itself as "Austria's first town of happiness", and has brought together business people, community representatives and committed Moosburg citizens. The website "https://zumglueck.jetzt/" is dedicated to the topic of happiness and would like to motivate people of all ages to take the risk of becoming "the architect of their own happiness" (see Figure 7.5). Enhancing happiness can be seen as an important element of enhancing QoL. Specific measures include *the happiness academy* (the playground of ideas for perspectives on a successful life), and *the happiness trail* (an artistically designed adventure path). Visitors embark on a journey of discovery on the "Path of Abundance" and the "Path of Silence". There are around 50 stations to explore; they make the most diverse facets of happiness visible and tangible.

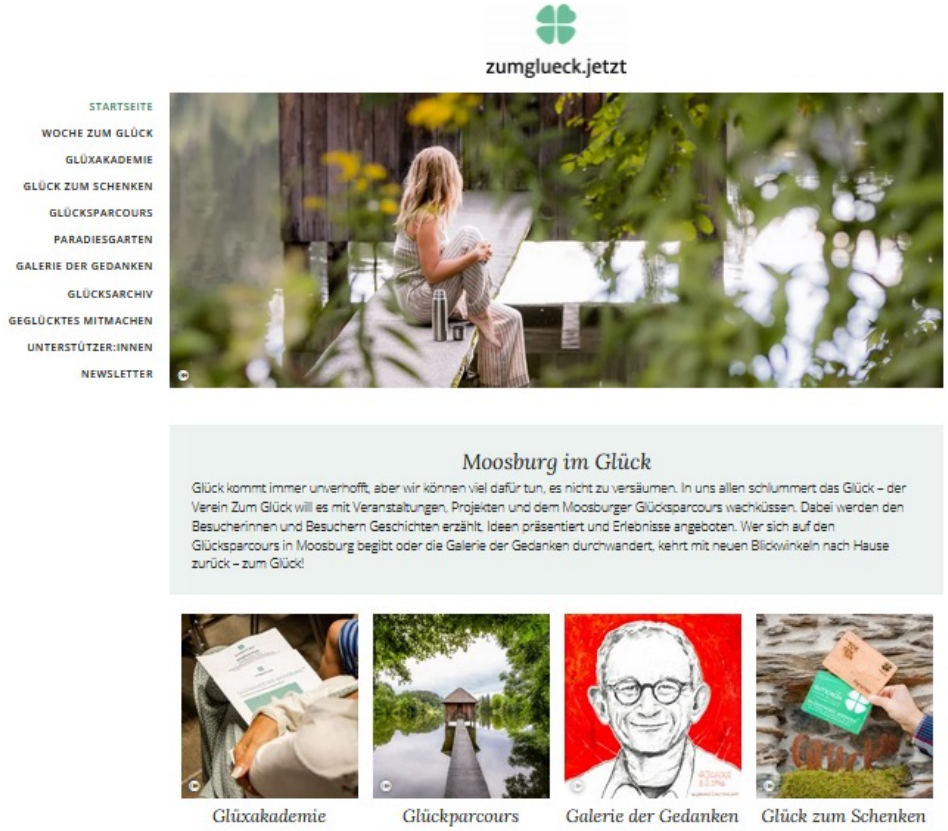

FIGURE 7.5
The website "Moosburg is happy" – a portal to motivate citizens of the town to be pro-active in regards to their well-being.

The project 4 Gemeinden, 1 Lebensraum (4 Municipalities, 1 Living Space) aims to execute quite a number of project ideas and measures/actions which have been suggested through civic participation. For example. Measures for closer cooperation in tourism, economy, agriculture, mobility and so on have been developed further or implemented in collaboration with the four neighbouring rural municipalities Kartitsch, Obertilliach, Untertilliach and Lesachtal situated in the two Austrian federal states (Bundesländer) of Tyrol and Carinthia.

The Digital Alpine Village DAHOAM 4.0 project introduced new digital solutions to three Bavarian communities, as well as other new solutions for the municipal administrators, citizens and tourists; a digital care compass, a nature adventure platform, municipal data and public documents access, and a website for ridesharing.

Station for Transformation is modelling a train station as a replicable hub for public-civic engagement to tackle climate change and biodiversity challenges (see Figure 7.6). This project which is supported by European Urban Initiative transformed the train station in Alpine town of Rovereto in Trentino, Italy. Its functional urban area is facing the challenge of rapidly adapting to the effects of climate change and effectively mitigating the resulting loss of biodiversity; both are closely linked to territorial cultural heritage and well-being. To address these challenges, the town has transformed the empty main building of the train station and its surrounding area into a public-civic hub for joint actions on climate change, biodiversity loss and heritage regeneration in line with the EU's New Leipzig Charter.

Euregio Family Passes are personalised, annual smart cards or electronic tickets which provide educed fares on all means of public transport across all of South Tyrol. Any parent or legal guardian of at least one underage child is entitled to a Euregio Family Pass. The ticket itself works much like a Südtirol Pass: The more kilometres you travel throughout one year, the cheaper each new journey becomes. Fares are calculated per journey and automatically charged whenever you use your pass. You can either pay by direct debit from your bank account (post-paid ticket version) or top up your pass with credit and pay as you go (pre-paid ticket version). Euregio Family Pass holders are also entitled to a range of discounts and offers in many shops, museums, and so on across South Tyrol, Trentino, and Tyrol.

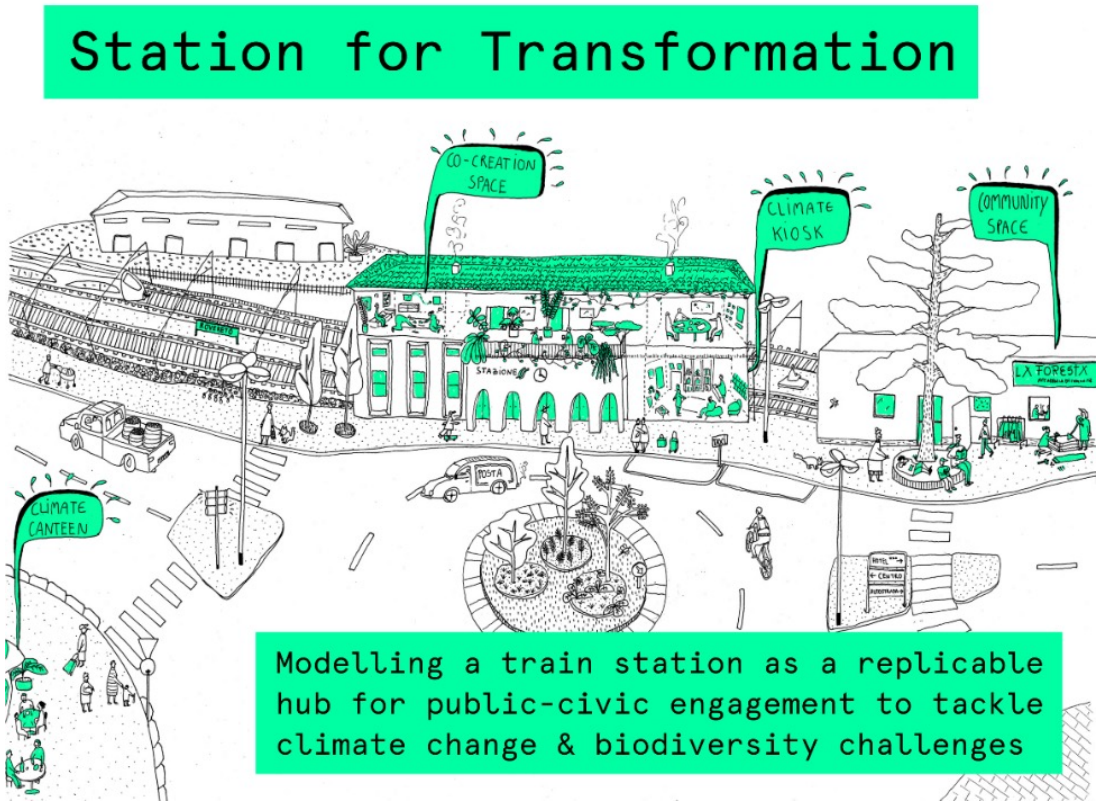

FIGURE 7.6
The concept of Station for Transformation project in Rovereto, Italy. (Source 1, 2)

MARO is a housing cooperative, which offers a new approach to creating affordable housing whilst simultaneously addressing social (elderly living, integrative approaches) and architectural/environmental issues (reuse of vacant buildings, inner-urban development). For its projects, MARO manages to activate capital at the regional level for meaningful regional projects. Besides interest rates, it is providing an "emotional" interest rate for people who want to invest in the sustainable development of their city or region.

With the help of the area management database of the Bavarian State Office for the Environment, the municipality of Schleching recorded land vacancies and areas that can be redeveloped. To ensure that the townscape is not disturbed, and the rural architectural style is maintained, a construction manual was created. This serves as a guide and contains examples of successful renovations, and is intended to safeguard the townscape as well as the attractive effect of the rural climatic health resort on tourism. In addition, the village centre was made friendlier; a road was laid and space was created for events and celebrations. Social infrastructure in the village centre is now bringing life to the village: Schleching's kindergarten children are now allowed to spend their hours in a listed farmhouse and the fire department, mountain rescue service, and the shooting club have been quartered in an empty building. There has been a village shop in Schleching since 2014, and it is run by citizens. The community acquired the building for this purpose. There is a shared apartment for seniors and people with disabilities above the village shop. From 2014–2016, Schleching was a partner community in the project "Sustainable Community 2030 – Shaping the Future" of the Munich University of Applied Sciences and the SIREG Institute which is funded by the Bavarian State Ministry for the Environment and Consumer Protection.

8 CONCLUSION

To conclude this work on the quality of life (QoL) in the Alpine Convention area, challenges to be addressed in the future to secure good quality of life ought to be identified. These challenges were identified through the analytical work done in preparing this report and through the participative workshop carried out with work group members in September 2023 in Bolzano. The challenges pertain to the general QoL situation in the Alps and its measuring and monitoring.

8.1 Overall picture

The analysis shows that QoL in the Alpine area is generally good (as measured by the survey). Moreover, preparing the database on QoL and identifying the indicators and their graphical representation yielded similar results when compared with the European average. However, extended discussions with WG members have identified QoL challenges in the region.

Among these challenges, the following issues were most often mentioned: climate change and natural hazards. These issues were mostly discussed independently, but in some cases, workgroup members related them to their impact on infrastructure, physical wellbeing, tourism, climate-induced displacement and biodiversity. Tourism was also recognised as a challenge, being connected to land take, housing problems, biodiversity degeneration and overtourism. Demographic changes were also identified, both internal ones (e.g., an ageing population and people moving from rural to urban areas) and external ones (e.g., international migration), influencing social life and cultural identity. Policies and governance should play a larger role in addressing objectives related to QoL and spatial planning, including measures and secure monitoring.

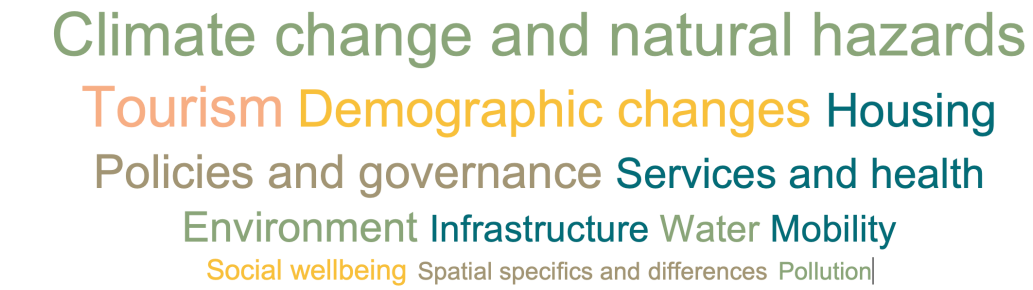

FIGURE 8.1
Categories of identified challenges to QoL in the Alps (individual answers) based on the WG members' opinions.

How to maintain good service provision was also addressed, especially regarding health, the ageing population and rural areas. In addition to already mentioned climate change and natural hazards as environmental issues, the following topics were listed: biodiversity loss, land seizure, landscape deterioration and sustainability. Specifically, pressure on water supply was emphasized due to climate change and increased demand (e.g., tourism). Also frequently discussed, both in the WG and criticised in the survey was a poor public transport system, which causes car dependency and hampers accessibility of services. Surprisingly, the GIS analysis and the survey did not find negative impacts regarding the provision of infrastructure and services; however, in the open-question portion, respondents raised a lot of issues, as did the WG group. These issues included high maintenance costs, better resilience to natural hazards and building standards, as well as constructing infrastructure for using renewables.

The respondents also had negative feelings about social relations; they mentioned pessimism about life, conflicts, neglection of marginalised groups and loss of social life. Some of these topics were mentioned in the last, open question of the survey, in which residents of the Alps were invited to comment on the QoL as they see it. They highlighted themes about living in the Alps, such as its remoteness, feelings of isolation and the inhabitants' conservativeness. In the survey, however, residents reported they kept relationships with friends, neighbours, or relatives.

Regarding governance, the analysis showed that there is no unified approach to governing QoL. Generally, it is a cross-sectoral topic, addressing various sectors, either directly or indirectly. Switzerland and Slovenia have so far adopted policies specifically adopting QoL as the major concept to identify objectives and measures, while some of the other countries focused on global sustainable goals as relevant to this topic. In terms of QoL measuring instruments, a variety was listed, as were the good practices of mostly Interreg Alpine Space projects whose activities ought to bring changes to Alpine regions. Several practices of monitoring QoL were mentioned, including individual studies ordered by states (e.g. Bavaria, South Tyrol and Vorarlberg).

Both the GIS analysis and survey showed that in general, it matters little where (region-specific) a person lives in the Alps. Correlations between geographical area and QoL satisfaction were not identified. However, the WG members mentioned that such geographical differences do exist in terms of what measures are carried out on the administrative level (e.g., local and regional).

8.2 Major challenges according to five QoL topics

Aside from the overall picture, specific challenges were described according to the five selected QoL topics.

Environment:

- Climate change and natural hazards should be considered while preparing and implementing policies so that their negative impacts can be limited or mitigated and the adaptability of Alpine regions can be strengthened.
- There is a need to improve land management, water and air quality and food production and ensure the protection of biodiversity and the health and safety of all living beings.

Infrastructure and services:

- Providing services and infrastructure should be addressed, specifically in remote areas with negative demographic trends and in tourism regions because of changes in population and service demand.
- Public transportation is poor (e.g., infrequent services and route closures). Alternatives to traditional public transportation (e.g., bus and train) should be further explored (e.g., on-demand, voluntary service for the elderly).
- Due to the depopulation of remote areas, empty buildings are abundant; revitalising them should be prioritised instead of continuous land take.
- Lack of affordable housing was mentioned due to the high prices, presence of secondary homes for leisure purposes as tourism is a major economic activity in some of the areas; this is especially problematic for vulnerable groups, such as youth, elderly and young families.
- Infrastructure should be made resilient to climate change and natural hazards (e.g., improved construction standards and better zoning of residential areas).
- Digital services offer good alternatives for classic supply of services on location; however, they are not utilised enough because of poor telecommunication infrastructure in some areas.

Work and financial security:

- GIS analysis shows that income is the greatest disparity between the Alpine regions.
- Similarly, parental leave varies across countries, providing different conditions for young parents to balance their work and family life.
- Remote work is a welcomed solution to keep the population in remote areas; however, employers across Alpine countries are not similarly willing to let people work remotely. A further problem is poor digital infrastructure in some areas, which does not allow for such an option.
- Spatial differences in population dynamics and availability/accessibility of jobs are identified.
- The ageing population is limiting the size of the working population, as is the outmigration from the remote Alpine areas for education and work.
- Immigrants have difficulty integrating into the job market.
- Diversification of the economy is needed, especially in rural areas (e.g., opportunities for circular economy).

Social relations:

- Demographic changes, such as the ageing population, immigration and brain drain, have altered the population dynamics and social relationships.
- Increases in the immigration of non-Alpine/non-European populations mean an increased possibility for conflicts between the local people and incomers.
- Youth and other vulnerable groups are deprived of social relationships due to depopulation, the closure of local community centres and other population dynamics.
- More measures are needed to address social inequalities, such as grassroots initiatives and community-based policies. Spatial planning could take an active role in providing places for people to engage and boost community life.

Governance:

- There is no common understanding of QoL across Alpine countries.
- No AC monitoring system of QoL exists; one should be established to provide an overall picture of QoL in the Alps and to provide necessary data on the topics that are poorly covered by EUROSTAT (e.g., housing, biodiversity and transportation).
- Policies do not consider local and regional specific needs, namely they should be place-based or place-specific.
- Usually, no ministry/department adapts QoL as a core topic; the concept should be considered a cross-sectoral topic and treated as such.
- There is a mismatch between the national and local levels in initiatives concerning QoL.
- No standards or regulations for the provision of services of general interest exist, except for Switzerland.
- There is low trust in governance, confirmed by existing studies and the lowest measured satisfaction of all QoL elements.
- Remote areas are losing administrative staff and governance knowledge due to brain drain.
- Extreme political views, conservatism and euro-scepticism are present in the area.

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Annexes

Annex 1.1: Questionnaire about governance framework for securing QoL in AC states

This questionnaire helps us to prepare an input to the RSA 10, namely the description of governance frameworks for Quality of Life (QoL) in the Alps. In the chapter focusing on the current state of QoL in the Alps we want to introduce a governance framework on all administrative levels (supranational, national, regional and local level). Hereby, we are interested in policies and legislation, targeting QoL directly or in the field of spatial planning, and institutional framework to deliver these policies and legislation. The questions should be answered either for the country level (federal or national) or state level (e.g. "Länder", cantons, provinces). The term "country" is used in the questionnaire for the national and federal level. In order to avoid confusion, we have provided a space where you state for which particular administrative unit you are providing the answers. If possible, please also provide website links to the documents and other resources.

You can either answer the questions on your own as an employee of your institution, however, if you need to consult a colleague, feel free to do so. In addition, please also provide us with your contact information, so we can reach you in case some clarifications are necessary.

We would kindly ask you to return the questionnaire until March, 31st, 2023 to Mrs. Maja Debevec: maja.debevec@bf.uni-lj.si.

This questionnaire presents the situation in: INSERT name of the country or state (e.g. Länder, canton, province, department etc.).
Contact: INSERT name, surname and email.

1. Quality of life (QoL) can be named with different terms and also understood in various ways. What is the most common naming and understanding of the term in your country? You can provide naming in your national languages but then, please, also translate it into English.

2. Does your country have a policy specific for QoL and/or a legislation that was adopted particularly for the purpose of securing high QoL in your state? Please, state the name(s), year of adoption and aims and objectives of such document(s).

3. What is the main policy regarding development of your state? What are its objectives? How many and which of the objectives relate to QoL? An example of such policy would be Slovenian Development Strategy 2030, an umbrella document on the national level to steer the development in general. Its main objective is good quality of life for everyone.

4. What is the main spatial/territorial planning policy and/or legislation of your country? What are its objectives? How many and which of the objectives relate to QoL? An example of such document would Slovenian Spatial Development Strategy which among its objectives writes "good quality of life for people in urban areas and countryside".

5. What policy documents steer QoL in your country on regional and local level?
Regional level should be understood as NUTS 3 level, administrative level that is lower than "Länder", cantons, provinces. An example of such document would be a regional development programme or similar strategy. Name the documents, their type and what their aims are.

6. Do you know of any measures or instruments existing in your country which can be implemented to improve QoL? Please, describe them briefly. These measures could contribute to better policy making, e.g. consideration of QoL while preparing sectoral policies, implementing assessment tools such as Sustainable Impact Assessment in the Switzerland and Equivalent Quick Check in Germany, measures to improve infrastructure and other spatial planning measures concerning QoL. If there are plenty of such measures, name and describe a few, and mention there are more.

7.a Does your government provide any financial incentives to improve QoL in the area inside the AC perimeter, e.g. incentives for development in mountainous or remote areas? Please, name them and describe them briefly. If possible, also add links to the references.

7.b Do you know of any initiatives (measures, projects) on regional or local level to improve QoL in local communities inside the AC perimeter? Please, describe them briefly and/or add links to the references.

8.a Is there any institution (also valid if department or sector in your government) in your country that was specifically established just for securing good QoL? Please, name it, explain when it was established and what is its role for securing QoL.

8.b What is the main institution responsible for spatial planning in your country and what is its role for securing QoL?

8.c Is there any institution in your country that is responsible for monitoring QoL? Please, name it, explain when it was established and how does the monitoring of QoL function.

9.a Which factors will contribute most to improving QoL in your country in next 20 years? Explain, what will be the contribution of each of the factors.

9.b Which factors will contribute most to decrease QoL in your country in next 20 years? Explain, what will be the contribution of each of the factors.

10. If you would like to add something, e.g. you know of any other studies, projects about QoL that could be useful for preparation of the report, please do so here.

We thank you kindly for your support and answers.

Annex 1.2: List of policies and other relevant documents

ALPINE CONVENTION PROTOCOLS AND DECLARATIONS

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AC XVI 2016. Declaration on Fostering a Sustainable Economy in the Alps. XVI Alpine Convention Conference. Alpine Convention. Permanent Secretariat of the Alpine Convention. Available at: https://www.alpconv.org/fileadmin/user_upload/Convention/EN/Declaration_Green_Economy_EN.pdf

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Annex 1.3: Metadata on indicators

Topic	Indicator[98]	Source	Spatial detail	Link
General	Life satisfaction	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e20
General	Perceived level of happiness	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e21
ENABLERS				
Environment	**Land take intensity**	EEA, 2021	NUTS 3	https://www.eea.europa.eu/data-and-maps/dashboards/land-take-statistics
Environment	**Share of waterbodies in good or high ecological status**	EEA, 2020; FOEN, 2019	NUTS 3	https://www.eea.europa.eu/en/datahub/datahubitem-view/dc1b1cdf-5fa0-4535-8c89-10cc051e00db; https://www.bafu.admin.ch/bafu/en/home/topics/water/state/maps/geodata.html
Environment	**Trend of annual temperature 1960–2021**	EEA, 2023	NUTS 3	https://www.eea.europa.eu/en/analysis/indicators/global-and-european-temperatures?activeAccordion=546a7c35-9188-4d23-94ee-005d97c26f2b
Infrastructure and services	**Average population-weighted distance to hospital**	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Infrastructure and services	Average population-weighted distance to nursery	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Infrastructure and services	Average population-weighted distance to primary school	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Infrastructure and services	**Average population-weighted distance to grocery store**	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Infrastructure and services	Average population-weighted distance to cultural amenities: cinemas, theatres, libraries	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Infrastructure and services	**Share of households with broadband access**	Eurostat, 2021	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/isoc_r_broad_h/default/table?lang=en; https://datahub.itu.int/dashboards/umc/indicator/?e=LIE&i=34235
Work and financial security	Duration of parental leave	OECD, 2022	NUTS 0	https://www.oecd.org/els/family/database.htm
Work and financial security	Share of employed persons commuting to another NUTS 2 region within their country	Eurostat, 2022; 2021 (LI); 2020 (SI, Volarbeg)	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/LFST_R_LFE2ECOMM__custom_6392908/default/table?lang=en; https://etab.llv.li/PXWeb/pxweb/en/eTab/eTab__Employment%20and%20earnings__Population%20in%20gainful%20employment/282.201e.px/?rxid=e8f19815-528f-403a-b3bd-03c0b1a2adf0

[98] Core indicators are marked with bold.

Work and financial security	Labor productivity	Eurostat, 2017	NUTS 3	https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=500199#Regional_concentration_of_economic_activity_within_the_EU
Work and financial security	**Average number of usual weekly hours of work in main job**	Eurostat, 2022	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/LFST_R_LFE2EHOUR_custom_6452266/default/table?lang=en
Social relations	**Average population-weighted distance to community centre**	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Social relations	Average population-weighted distance to police station	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Social relations	Average population-weighted distance to fire station	GIS analysis based on OSM data, 2023	NUTS 3	https://www.openstreetmap.org/#map=19/47.15473/13.11016
Governance	**European Quality of Government index**	EC, 2021	NUTS 2	https://ec.europa.eu/regional_policy/information-sources/maps/quality-of-government_en
Governance	Adaptive capacity to climate change	ESPON, 2022	NUTS 3	https://www.espon.eu/projects/espon-2020/monitoring-and-tools/climate-data-and-maps-update
LIFE MAINTENANCE				
Environment	**Premature deaths per 100.000 inhabitants due to PM2,5 air pollution**	EEA, 2019	NUTS 3	https://www.eea.europa.eu/en/datahub/datahubitem-view/49930245-dc33-4c47-93b8-9512f0622ebc
Environment	**Aggregated risk of potential effects of climate change on society under continued very high emissions scenarios**	ESPON, 2022	NUTS 3	https://www.espon.eu/projects/espon-2020/monitoring-and-tools/climate-data-and-maps-update
Infrastructure and services	**Population growth (2017/2021)**	Eurostat, 2020; 2021 (SI), Monaco Statistics, 2022	NUTS 3	https://ec.europa.eu/eurostat/databrowser/view/demo_r_pjangrp3/default/table?lang=en
Work and financial security	**Equivalised disposable income of households (per inhabitant)**	Eurostat 2020; 2021 (SI)	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/NAMA_10R_2HHINC_custom_6408100/default/table?lang=en
Work and financial security	**Share of people at risk of poverty**	Eurostat, 2020 (IT, SI, CH); 2019 (DE); 2018 (AT)	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/ilc_peps11/default/table?lang=en
Work and financial security	Share of employed persons in service sector (NACE)	Eurostat, 2021; 2020 (IT)	NUTS 3	https://ec.europa.eu/eurostat/databrowser/view/NAMA_10R_3EMPERS_custom_6449985/default/table?lang=en
Social relations	Aging index	Eurostat, 2022	NUTS 3	https://ec.europa.eu/eurostat/databrowser/view/demo_r_pjanaggr3/default/table?lang=en
Social relations	**Share of young people who are neither in employment nor in education and training**	Eurostat, 2022; 2020 (CH)	NUTS 2	https://ec.europa.eu/eurostat/databrowser/view/edat_lfse_22/default/table?lang=en
Social relations	**Percentage of people who have friend or relatives to rely on in case of need**	OECD, 2018	NUTS 2	https://stats.oecd.org/viewhtml.aspx?datasetcode=RWB&lang=en#

Governance	**Voter turnout on national elections**	OECD, 2021 (DE, LI); 2019 (AT, CH); 2018 (IT, SI); 2017 (FR)	NUTS 2	https://stats.oecd.org/viewhtml.aspx?datasetcode=RWB&lang=en#; https://etab.llv.li/PXWeb/pxweb/en/eTab/eTab__Health__Causes%20of%20death/471.001e.px/?rxid=e8f19815-528f-403a-b3bd-03c0b1a2adf0; https://etab.llv.li/PXWeb/pxweb/en/eTab/eTab__State%20and%20politics__Elections,%20referendums__Parliamentary%20elections/512.103e.px/?rxid=e8f19815-528f-403a-b3bd-03c0b1a2adf0
LIFE FLOURISHING				
Environment	**Share of respondents who perceive effects of environmental issues on daily life and health**	Eurobarometer, 2019	NUTS 1, SI: NUTS 3	https://data.europa.eu/data/datasets/s2257_92_4_501_eng?locale=en
Infrastructure and services	**Perceived own health**	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e9
Work and financial security	**Perception about income with regards to comfort of living**	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e13
Work and financial security	**Satisfaction with main job**	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e14
Social relations	**Feeling of safety in local area after dark**	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e16
Governance	**Satisfaction with democracy in country**	ESS, 2020	NUTS 1: DE, IT; NUTS 2: AT, CH, FR; NUTS 3: SI	https://ess-search.nsd.no/en/study/172ac431-2a06-41df-9dab-c1fd8f3877e17

Annex 1.4: Survey on the quality of life in the Alps – English version of the questionnaire

We would like to invite you to participate in a survey conducted by the University of Ljubljana that aims to research quality of life in the Alps. Quality of life encompasses the living and material conditions required for inhabitants to survive and flourish in a certain area as well as those inhabitants' subjective perceptions of these conditions. By focusing on quality of life, we are addressing your needs as an inhabitant of the Alps and collecting your valuable opinions on satisfaction with well-being in this area. Your opinions will aid us in preparing recommendations for local, regional and national decision-makers to enable better quality of life in the Alps.

We welcome anyone age 15 years or older to participate in the survey, which should take no longer than 15 minutes to complete. Your participation is greatly appreciated.

We thank you in advance for your time and contribution.

1(a). All things considered, how satisfied are you with your life as a whole nowadays? Please answer on a scale from 1 to 10, with 0 meaning extremely dissatisfied and 10 extremely satisfied.

0	1	2	3	4	5	6	7	8	9	10
Extremely dissatisfied										**Extremely satisfied**

1(b). How satisfied are you with the following aspects of your quality of life? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 extremely satisfied.

	1	**2**	**3**	**4**	**5**
	Extremely dissatisfied				**Extremely satisfied**
Environment	1	2	3	4	5
Infrastructure and services	1	2	3	4	5
Governance (administration, politics)	1	2	3	4	5
Work and financial security	1	2	3	4	5
Social relations	1	2	3	4	5

2. How much time does it take for you to travel to the services listed below? Consider the time travelling with the means of transport you use most often to go to these services. Choose not applicable (N.A.) if you do not use this service at all.

	1	**2**	**3**	**4**	**5**	**6**	**N.A.**
	up to 5 minutes	**6 to 15 minutes**	**16 to 30 minutes**	**31 to 45 minutes**	**46 to 60 minutes**	**More than 60 minutes**	**Not applicable**
Healthcare (general practitioner)	1	2	3	4	5	6	N.A.
Child-care	1	2	3	4	5	6	N.A.
Education (primary school)	1	2	3	4	5	6	N.A.
Elderly care	1	2	3	4	5	6	N.A.
Local farmers' market	1	2	3	4	5	6	N.A.
Grocery shop	1	2	3	4	5	6	N.A.
Specialised shops (furniture, clothes, etc.)	1	2	3	4	5	6	N.A.
Pharmacy	1	2	3	4	5	6	N.A.
Bank	1	2	3	4	5	6	N.A.
Post office	1	2	3	4	5	6	N.A.
Public library	1	2	3	4	5	6	N.A.
Recreational infrastructure (outdoor and indoor)	1	2	3	4	5	6	N.A.
Cultural amenities (e.g., cultural halls)	1	2	3	4	5	6	N.A.

3. How satisfied are you with the accessibility of the following services/factors contributing to your quality of life? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 meaning extremely satisfied. Choose not applicable (N.A.) if you do not use this service at all.

	1	2	3	4	5	N.A.
	Extremely dissatisfied				Extremely satisfied	Not applicable
Healthcare (general practitioner)	1	2	3	4	5	N.A.
Child-care	1	2	3	4	5	N.A.
Education (primary school)	1	2	3	4	5	N.A.
Elderly care	1	2	3	4	5	N.A.
Local farmers' market	1	2	3	4	5	N.A.
Grocery shop	1	2	3	4	5	N.A.
Specialised shops (furniture, clothes, etc.)	1	2	3	4	5	N.A.
Pharmacy	1	2	3	4	5	N.A.
Bank	1	2	3	4	5	N.A.
Post office	1	2	3	4	5	N.A.
Public library	1	2	3	4	5	N.A.
Recreational infrastructure (outdoor and indoor)	1	2	3	4	5	N.A.
Cultural amenities (e.g., cultural halls)	1	2	3	4	5	N.A.

4. How do you usually run your daily errands?
a) On foot
b) By bike
c) By car
d) By public transportation
e) Other

5(a). What type of housing do you live in?
a) A single-family house
b) A farmstead
c) An attached house
d) An apartment in a multi-dwelling house
e) Other

5(b). How satisfied are you with your housing? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 extremely satisfied.

1	2	3	4	5
Extremely dissatisfied				Extremely satisfied

5(c). Do you or one of your household members own the housing unit you live in?
Yes/No

5(d). Do you own a housing unit in which you do not usually reside?
a) No
b) Yes, for personal leisure use
c) Yes, for long-term lease
d) Yes, for tourism or short-term rental
e) Other

5(e). How satisfied are you with the availability of affordable housing in the area in which you live? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 meaning extremely satisfied.

1	2	3	4	5
Extremely dissatisfied				Extremely satisfied

5(f). Please explain your answer under 5(e).

6(a). Do you currently have a paid job?
Yes/No

6(b). If yes, how satisfied are you with the following aspects of your work conditions? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 extremely satisfied. Choose "not applicable" if irrelevant.

	1	**2**	**3**	**4**	**5**	**N.A.**
	Extremely dissatisfied				**Extremely satisfied**	**Not applicable**
Salary	1	2	3	4	5	N.A.
Possibilities for telework	1	2	3	4	5	N.A.
Possibilities for training	1	2	3	4	5	N.A.
Number of vacation days	1	2	3	4	5	N.A.
Parental-leave duration	1	2	3	4	5	N.A.
Work-life balance management	1	2	3	4	5	N.A.

7. How often do you use public transport?
a) Never
b) Less than once a month
c) Once a month
d) Several times a month
e) Once a week
f) Several times a week
g) Every day

If you chose answer c, d, e, f or g, how satisfied are you with public transport in the area in which you live? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 extremely satisfied.

1	2	3	4	5
Extremely dissatisfied				Extremely satisfied

8(a). Please choose the activities perceived as sustainable that you perform on a daily basis. You can choose multiple answers.
a) Reduce, recycle and/or compost waste
b) Buy local and seasonal produce
c) Reduce consumption of meat or animal products
d) Produce own food (garden, balcony, etc.)
e) Reduce the amount of new products bought
f) Buy second-hand/refurbished items (clothes, furniture, appliances)
g) Limit water usage
h) Use energy responsibly (e.g., take electricity-saving measures or use renewable energy)
i) Use public transportation or cycle
j) Other

8(b). How sustainable is your current lifestyle?
a) Very sustainable
b) Sustainable
c) Moderately sustainable
d) Not sustainable
e) Not sustainable at all

9(a). Do you live in a protected area (e.g., national park, nature reserve, wildlife area, biosphere or reserve)?
a) Yes
b) No
c) I do not know

9(b). If yes, do you think the activities and management of the protected area increase or decrease your quality of life? Please answer on a scale from 1 to 5, with 1 meaning decreases a lot to 5 meaning increases a lot.

1	2	3	4	5
Decreases a lot			**Increases a lot**	

10. How satisfied are you with the following environmental aspects of the area in which you live? Please answer on a scale from 1 to 5, with 1 meaning extremely dissatisfied and 5 extremely satisfied. Choose not applicable (N.A.) if it is not relevant to your situation.

	1	**2**	**3**	**4**	**5**	**N.A.**
	Extremely dissatisfied				**Extremely satisfied**	**Not applicable**
Air	1	2	3	4	5	N.A.
Water	1	2	3	4	5	N.A.
Soil	1	2	3	4	5	N.A.
Vegetation	1	2	3	4	5	N.A.
Light pollution	1	2	3	4	5	N.A.
Noise pollution	1	2	3	4	5	N.A.
Other	1	2	3	4	5	N.A.

11. How often do you meet socially with friends, relatives or work colleagues?
a) Never
b) Less than once a month
c) Once a month
d) Several times a month
e) Once a week
f) Several times a week
g) Every day

12. What are the three biggest strengths of living in the Alps with regard to quality of life?

13. What are the three biggest weaknesses of living in the Alps with regard to quality of life?

14. What has happened to your quality of life in the last 10 years?
a) My QoL has significantly decreased
b) My QoL has decreased
c) My QoL has stayed the same
d) My QoL has increased
e) My QoL has significantly increased

15(a). What do you think will happen with your quality of life in the next 10 years?
a) My QoL will significantly decrease
b) My QoL will decrease
c) My QoL will remain the same
d) My QoL will increase
e) My QoL will significantly increase

15(b). Which factors will most contribute to your quality of life in the next 10 years?
a) Career development
b) Job (in)security
c) Family life
d) Personal health
e) Government actions
f) Climate change
g) Accessibility of infrastructure and services
h) Macroeconomic situation (e.g., inflation)
i) Other

16. Taking all things together, how happy would you say that you are? Please answer on a scale from 0 to 10, with 0 meaning extremely unhappy and 10 meaning extremely happy.

0	1	2	3	4	5	6	7	8	9	10
Extremely unhappy										**Extremely happy**

17(a). In what type of area do you live?
a) A big city
b) The suburbs or outskirts of a big city
c) A town or a small city
d) A country village
e) An isolated hamlet/the countryside with dispersed settlements

17(b). If you chose 'a) a big city', please tell us which.
a) Bern
b) Bolzano
c) Grenoble
d) Innsbruck
e) Ljubljana
f) Luzern
g) Milano
h) Salzburg
i) Torino
j) Trento
k) Vienna
l) Other

18(a). In which country do you live?
a) Austria
b) France
c) Germany
d) Italy
e) Liechtenstein
f) Monaco
g) Slovenia
h) Switzerland
i) Other

18(b). In which Alpine region (NUTS 3 level according to the Nomenclature of territorial units for statistics) do you live? The list of regions drops down based on the selection of the country.

19. Number of people in your household
a) 1 person
b) 2 people
c) 3 people
d) 4 people
e) 5 or more people

20. Age category
a) 15 to 17
b) 18 to 25
c) 26 to 35
d) 36 to 45
e) 46 to 55
f) 56 to 65
g) 66 to 75
h) 76 to 85
i) 86 or older

21. Gender
a) Female
b) Male
c) Other

22. Highest level of completed education (according to the International Standard Classification of Education)
a) Early childhood education ('less than primary' for educational attainment)
b) Primary education
c) Lower secondary education
d) Upper secondary education
e) Post-secondary non-tertiary education
f) Short-cycle tertiary education
g) Bachelor's or equivalent level
h) Master's or equivalent level
i) Doctoral or equivalent level
j) I do not know

23. Which of the options below best describes your profession?
a) Professional or technical occupation (e.g., doctor, teacher, engineer, artist)
b) Higher administrator occupation (e.g., banker, executive in big business, high government official, union official)
c) Clerical occupation (e.g., secretary, clerk, office manager, bookkeeper)
d) Sales occupation (e.g., sales manager, shop owner, shop assistant, insurance agent)
e) Service occupation (e.g., restaurant owner, police officer, waiter, caretaker, barber, armed forces)
f) Skilled worker (e.g., foreman, motor mechanic, printer, tool and die maker, electrician)
g) Semi-skilled worker (e.g., bricklayer, bus driver, cannery worker, carpenter)
h) Unskilled worker (e.g., labourer, porter, unskilled factory worker)
i) Farm worker (e.g., farmer, farm labourer, tractor driver, fisherman)
j) I do not know

24. What is your current status?
a) Employed
b) Unemployed
c) Student
d) Retired person
e) Other

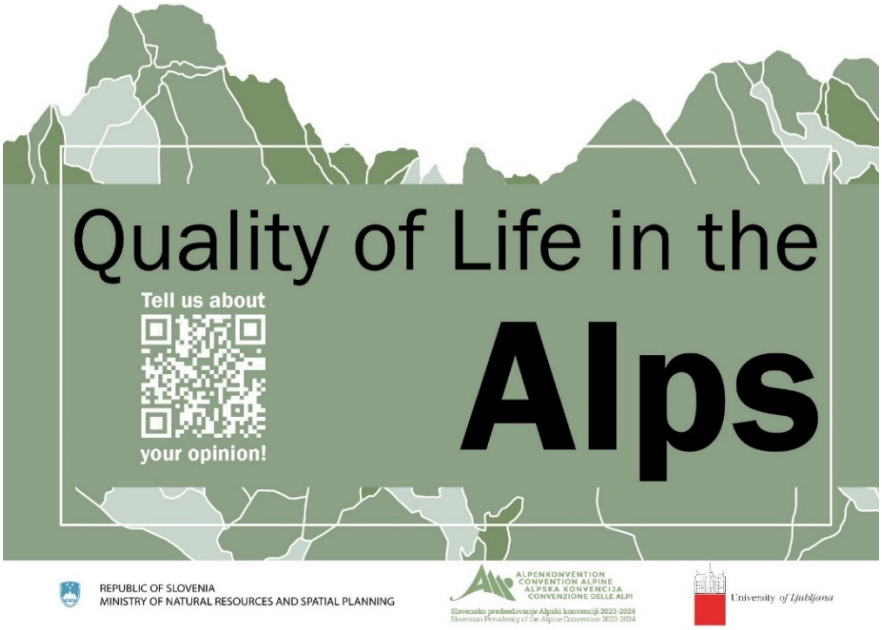
25. Which of the following descriptions comes closest to how you feel about your household's income?
a) Living comfortably on present income
b) Coping on present income
c) Finding it difficult on present income
d) Finding it very difficult on present income

26. Would you like to add anything concerning your quality of life?

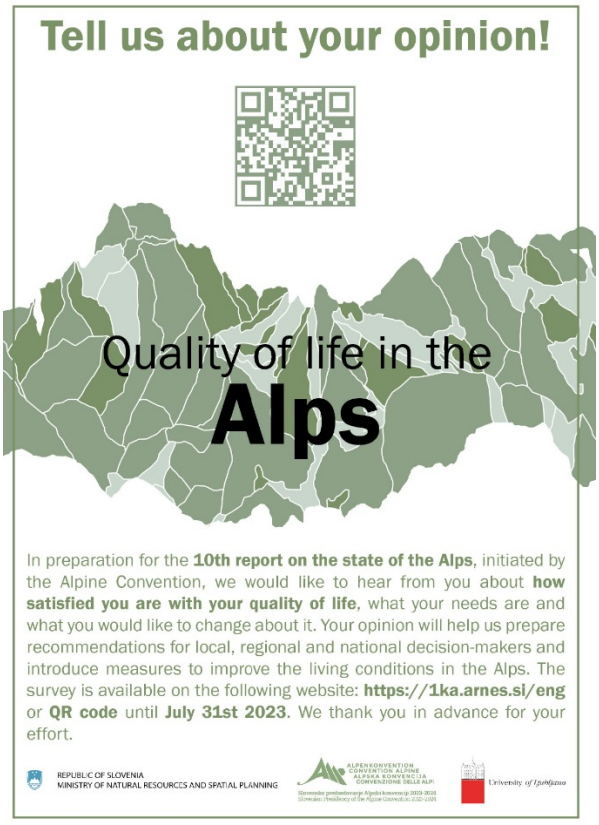
We thank you kindly for your cooperation.
If you want to be informed about the results of the research, you can leave us your e-mail address:

Annex 1.5: Examples of survey's dissemination material in English

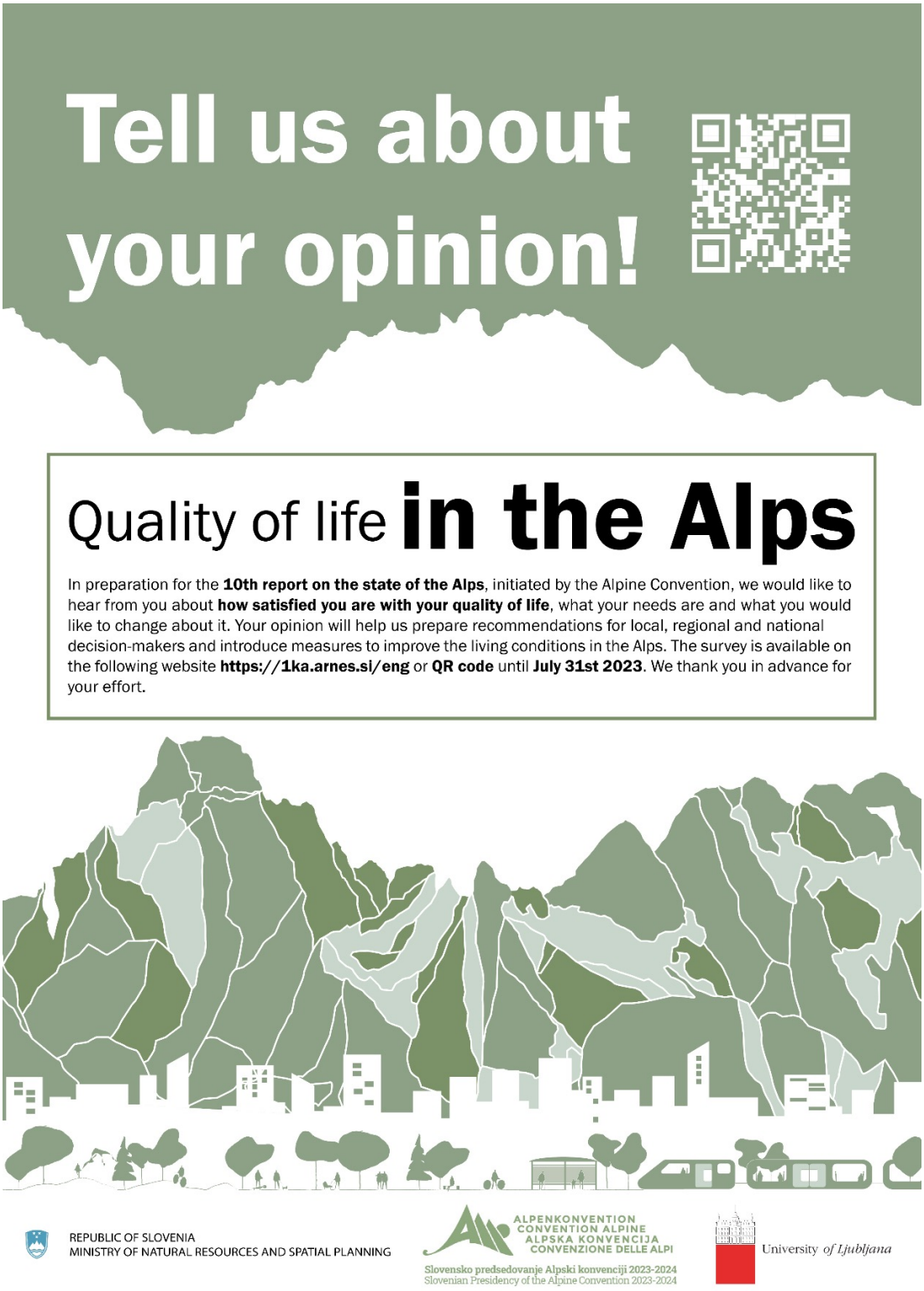
- Example of a card for dissemination of the survey – landscape version with less text



- Example of a card for dissemination of the survey – portrait version with more description



▸ Example of a poster for dissemination of the survey



Annex 1.6: Field survey on QoL in Austrian case studies

University of Ljubljana

ALPENKONVENTION
CONVENTION ALPINE
ALPSKA KONVENCIJA
CONVENZIONE DELLE ALPI
Slovensko predsedovanje Alpski konvenciji 2023-2024
Slovenian Presidency of the Alpine Convention 2023-2024

universität wien

Umfrage zur subjektiven Wahrnehmung der Lebensqualität im Alpenraum

Bewohner/innen/befragung / Haushaltsbefragung 2023

Case studies AT: *Gemeinde Lesachtal (Ktn.)* *Fragebogen Nr. _____*

Interviewer/in / Ablehnungen / Nr.: ..... / ..... / .....
Ortschaft, Adresse: .....
Datum und Uhrzeit: .....

\- - -

Wir möchten Sie dazu einladen, an einer – unter Federführung der Universität von Ljubljana konzipierten – Umfrage zur Erforschung der Lebensqualität im Alpenraum teilzunehmen. Lebensqualität umfasst dabei sowohl die Lebensbedingungen und materiellen Voraussetzungen für die Bewohner/innen, die notwendig sind, um in einem bestimmten Gebiet leben und sich entfalten zu können, als auch die subjektive Wahrnehmung dieser Gegebenheiten. Durch die Fokussierung auf Lebensqualität adressieren wir direkt Ihre Bedürfnisse als Bewohner/in der Alpen, während wir zugleich Ihre Meinung in Bezug auf das Wohlbefinden in diesem Gebiet erfassen. Ihre Sichtweise wird uns dabei helfen, Empfehlungen an lokale, regionale und nationale Entscheidungsträger/innen zu erarbeiten, um die Lebensbedingungen in den Alpen zu verbessern.

Wenn Sie mindestens 15 Jahre alt sind, heißen wir Sie willkommen, bei dieser Umfrage mitzumachen. Die Beantwortung der Fragen sollte maximal ca. 10-15 Minuten dauern. Wir wissen Ihre Teilnahme sehr zu schätzen.

Vielen Dank schon im Vorhinein für Ihre Zeit und Mitwirkung!

\- - -

1.a Wie zufrieden sind Sie heute generell mit Ihrem Leben?

Bitte antworten Sie auf der Skala von 0 bis 10, wobei 0 höchst unzufrieden und 10 höchst zufrieden bedeutet.

höchst unzufrieden										höchst zufrieden
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9	10

1.b Wie zufrieden sind Sie mit den folgenden Aspekten Ihrer Lebensqualität?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet.

	höchst unzufrieden				höchst zufrieden
	1	2	3	4	5
Umwelt	☐	☐	☐	☐	☐
Infrastruktur und Dienstleistungen	☐	☐	☐	☐	☐
Politik und Verwaltung	☐	☐	☐	☐	☐
Arbeit und finanzielle Sicherheit	☐	☐	☐	☐	☐
Soziale Beziehungen	☐	☐	☐	☐	☐

2. Wie viel Zeit benötigen Sie, um die nachfolgend aufgelisteten Dienstleistungen zu erreichen?

Berücksichtigen Sie die Zeit, die Sie mit jenen Verkehrsmitteln benötigen, welche Sie am häufigsten benutzen, um zu diesen Dienstleistungen zu gelangen.
Wählen Sie „keine Angabe", wenn Sie diese Dienstleistung überhaupt nicht in Anspruch nehmen.

	bis zu 5 Min.	6 bis 15 Min.	16 bis 30 Min.	31 bis 45 Min.	46 bis 60 Min.	mehr als 60 Min.	keine Angabe
Gesundheitswesen (praktischer Arzt)	☐	☐	☐	☐	☐	☐	☐
Kinderbetreuung	☐	☐	☐	☐	☐	☐	☐
Ausbildung (Volksschule/Grundschule/Primarschule)	☐	☐	☐	☐	☐	☐	☐
Altenpflege	☐	☐	☐	☐	☐	☐	☐
Lokaler/Regionaler Bauernmarkt	☐	☐	☐	☐	☐	☐	☐
Lebensmittelgeschäft	☐	☐	☐	☐	☐	☐	☐
Fachgeschäfte (Möbel, Kleidung etc.)	☐	☐	☐	☐	☐	☐	☐
Apotheke	☐	☐	☐	☐	☐	☐	☐
Bank	☐	☐	☐	☐	☐	☐	☐
Postamt/Poststelle	☐	☐	☐	☐	☐	☐	☐
Öffentliche Bücherei	☐	☐	☐	☐	☐	☐	☐
Erholungs-/Freizeiteinrichtungen (im Freien und in Gebäuden)	☐	☐	☐	☐	☐	☐	☐
Kultureinrichtungen, z. B. Veranstaltungsraum	☐	☐	☐	☐	☐	☐	☐

3. Wie zufrieden sind Sie mit der Erreichbarkeit der folgenden Dienstleistungen/Faktoren, die zu Ihrer Lebensqualität beitragen?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet.
Wählen Sie „keine Angabe", wenn Sie diese Dienstleistung überhaupt nicht in Anspruch nehmen.

	höchst unzufrieden 1	2	3	4	höchst zufrieden 5	keine Angabe
Gesundheitswesen (praktischer Arzt)	☐	☐	☐	☐	☐	☐
Kinderbetreuung	☐	☐	☐	☐	☐	☐
Ausbildung (Volksschule/Grundschule/Primarschule)	☐	☐	☐	☐	☐	☐
Altenpflege	☐	☐	☐	☐	☐	☐
Lokaler/Regionaler Bauernmarkt	☐	☐	☐	☐	☐	☐
Lebensmittelgeschäft	☐	☐	☐	☐	☐	☐
Fachgeschäfte (Möbel, Kleidung etc.)	☐	☐	☐	☐	☐	☐
Apotheke	☐	☐	☐	☐	☐	☐
Bank	☐	☐	☐	☐	☐	☐
Postamt/Poststelle	☐	☐	☐	☐	☐	☐
Öffentliche Bücherei	☐	☐	☐	☐	☐	☐
Erholungs-/Freizeiteinrichtungen (im Freien und in Gebäuden)	☐	☐	☐	☐	☐	☐
Kultureinrichtungen, z. B. Veranstaltungsraum	☐	☐	☐	☐	☐	☐

4. Wie erledigen Sie üblicherweise Ihre täglichen Besorgungen?

- ☐ zu Fuß
- ☐ mit dem Fahrrad
- ☐ mit dem Auto
- ☐ mit öffentlichen Verkehrsmitteln
- ☐ Sonstiges: .....

5.a In welcher Art von Behausung wohnen Sie?

- ☐ Einfamilienhaus
- ☐ Bauernhof
- ☐ Reihenhaus
- ☐ Wohnung in einem Mehrfamilienhaus
- ☐ Sonstiges: .....

5.b Wie zufrieden sind Sie mit Ihrer Wohnsituation?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet.

	höchst unzufrieden				höchst zufrieden
	1	2	3	4	5
Wohnsituation	☐	☐	☐	☐	☐

5.c Sind Sie oder eines der Mitglieder Ihres Haushalts Eigentümer/in der Wohneinheit, in der Sie wohnen?

☐ ja ☐ nein

X. Handelt es sich bei dieser Wohneinheit um Ihren Hauptwohnsitz oder einen Nebenwohnsitz?

- ☐ Hauptwohnsitz
- ☐ Nebenwohnsitz
- ☐ Sonstiges: .....

5.d Befindet sich eine Wohneinheit in Ihrem Eigentum, in der Sie nicht Ihren üblichen Wohnsitz haben?

- ☐ nein
- ☐ ja, für private Freizeitnutzung
- ☐ ja, für langfristige Vermietung
- ☐ ja, für touristische Kurzzeitvermietung
- ☐ Sonstiges: .....

5.e Wie zufrieden sind Sie mit der Verfügbarkeit des leistbaren Wohnraums in dem Gebiet, in dem Sie leben?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet.

	höchst unzufrieden				höchst zufrieden
	1	2	3	4	5
Verfügbarkeit des leistbaren Wohnraums	☐	☐	☐	☐	☐

5.f Bitte erläutern Sie Ihre Antwort auf Frage 5.e.

.....

.....

.....

.....

.....

6.a Üben Sie derzeit eine bezahlte berufliche Tätigkeit aus?

☐ ja ☐ nein

6.b Wenn ja: Wie zufrieden sind Sie mit den folgenden Aspekten Ihrer Arbeitsbedingungen?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet. Wählen Sie „keine Angabe", wenn ein Aspekt für Sie nicht relevant ist.

	höchst unzufrieden 1	2	3	4	höchst zufrieden 5	keine Angabe
Bezahlung/Gehalt	☐	☐	☐	☐	☐	☐
Möglichkeit zur Telearbeit	☐	☐	☐	☐	☐	☐
Möglichkeit zur Aus-/Weiterbildung (Schulungen)	☐	☐	☐	☐	☐	☐
Anzahl an Urlaubstagen	☐	☐	☐	☐	☐	☐
Dauer der Elternkarenz/Elternzeit	☐	☐	☐	☐	☐	☐
ausgewogenes Verhältnis zwischen Berufs- und Privatleben (Work-Life-Balance-Management)	☐	☐	☐	☐	☐	☐

7.a Wie oft benutzen Sie öffentliche Verkehrsmittel?

☐ nie
☐ weniger als einmal pro Monat
☐ einmal pro Monat
☐ mehrmals pro Monat
☐ einmal pro Woche
☐ mehrmals pro Woche
☐ täglich

7.b Wenn „einmal pro Monat" bis „täglich": Wie zufrieden sind Sie mit den öffentlichen Verkehrsmitteln in dem Gebiet, in dem Sie leben?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet.

	höchst unzufrieden 1	2	3	4	höchst zufrieden 5
öffentliche Verkehrsmittel	☐	☐	☐	☐	☐

8.a Bitte wählen Sie aus, welche dieser als nachhaltig empfundenen Tätigkeiten Sie im Alltag ausführen. *Sie können mehrere Antworten auswählen.*

☐ Abfall reduzieren, recyceln und/oder kompostieren
☐ lokale/regionale und saisonale Produkte einkaufen
☐ Konsum von Fleisch und tierischen Produkten reduzieren
☐ eigene Lebensmittel erzeugen (im Garten, am Balkon etc.)
☐ Menge an eingekauften neuen Produkten reduzieren
☐ Second-hand-Waren (instand gesetzte Gegenstände aus zweiter Hand) kaufen (Kleidung, Möbel, Geräte etc.)
☐ Wasserverbrauch einschränken
☐ verantwortungsvoller Energieverbrauch (Stromsparmaßnahmen, Nutzung erneuerbarer Energie)
☐ öffentliche Verkehrsmittel benutzen oder mit dem Fahrrad fahren
☐ Sonstiges: .....

8.b Wie nachhaltig ist Ihrer Meinung nach Ihr derzeitiger Lebensstil?

- ☐ sehr nachhaltig
- ☐ nachhaltig
- ☐ mittelmäßig nachhaltig
- ☐ nicht nachhaltig
- ☐ überhaupt nicht nachhaltig

9.a Leben Sie in einem Schutzgebiet, z. B. Nationalpark, Naturschutzgebiet, Biosphärenpark/ Biosphärenreservat/Biosphäre?

☐ ja ☐ nein ☐ Ich weiß es nicht.

9.b Wenn ja: Meinen Sie, dass die Aktivitäten und das Management des Schutzgebiets Ihre Lebensqualität erhöhen oder verringern?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 verringert sehr viel und 5 erhöht sehr viel bedeutet.

	verringert sehr viel				erhöht sehr viel
	1	2	3	4	5
Schutzgebiet	☐	☐	☐	☐	☐

10. Wie zufrieden sind Sie mit den folgenden Umweltaspekten in dem Gebiet, in dem Sie leben?

Bitte antworten Sie auf der Skala von 1 bis 5, wobei 1 höchst unzufrieden und 5 höchst zufrieden bedeutet. Wählen Sie „keine Angabe", wenn Sie einen Aspekt nicht einschätzen können.

	höchst unzufrieden				höchst zufrieden	keine Angabe
	1	2	3	4	5	
Luft	☐	☐	☐	☐	☐	☐
Wasser	☐	☐	☐	☐	☐	☐
Boden	☐	☐	☐	☐	☐	☐
Vegetation	☐	☐	☐	☐	☐	☐
Lichtverschmutzung	☐	☐	☐	☐	☐	☐
Lärmbelastung	☐	☐	☐	☐	☐	☐
Sonstiges:	☐	☐	☐	☐	☐	☐

11. Wie oft treffen Sie sich mit Freund/inn/en, Verwandten oder Arbeitskolleg/inn/en in geselliger Weise?

- ☐ nie
- ☐ weniger als einmal pro Monat
- ☐ einmal pro Monat
- ☐ mehrmals pro Monat
- ☐ einmal pro Woche
- ☐ mehrmals pro Woche
- ☐ täglich

Y. Fühlen Sie sich in der Gemeinde Lesachtal wohl?

nein ——|——|——|——|——|——|——|——|——|——|—— ja

0 10 20 30 40 50 60 70 80 90 100 %

12. Was sind Ihrer Meinung nach in Bezug auf Lebensqualität die drei größten Stärken des Lebens in den Alpen?

.....
.....
.....

13. Was sind Ihrer Meinung nach in Bezug auf Lebensqualität die drei größten Schwächen des Lebens in den Alpen?

.....
.....
.....

14. Was ist mit Ihrer Lebensqualität in den letzten 10 Jahren geschehen?

- ☐ Meine Lebensqualität hat sich erheblich verringert.
- ☐ Meine Lebensqualität hat sich verringert.
- ☐ Meine Lebensqualität ist gleich geblieben.
- ☐ Meine Lebensqualität hat sich erhöht.
- ☐ Meine Lebensqualität hat sich erheblich erhöht.

15.a Was wird Ihrer Meinung nach in den nächsten 10 Jahren mit Ihrer Lebensqualität geschehen?

- ☐ Meine Lebensqualität wird sich erheblich verringern.
- ☐ Meine Lebensqualität wird sich verringern.
- ☐ Meine Lebensqualität wird gleich bleiben.
- ☐ Meine Lebensqualität wird sich erhöhen.
- ☐ Meine Lebensqualität wird sich erheblich erhöhen.

15.b Welche Faktoren werden in den nächsten 10 Jahren am meisten zu Ihrer Lebensqualität beitragen? *Sie können mehrere Antworten auswählen.*

- ☐ berufliche Entwicklung (Karriere)
- ☐ Arbeitsplatz(un)sicherheit
- ☐ Familienleben
- ☐ persönliche Gesundheit
- ☐ Maßnahmen der Regierung
- ☐ Klimawandel
- ☐ Erreichbarkeit von Infrastruktur und Dienstleistungen
- ☐ gesamtwirtschaftliche Lage, z. B. Inflation
- ☐ Sonstiges: .....

16. Berücksichtigt man alles zusammen, wie glücklich, würden Sie sagen, sind Sie?

Bitte antworten Sie auf der Skala von 0 bis 10, wobei 0 besonders unglücklich und 10 besonders glücklich bedeutet.

besonders unglücklich										besonders glücklich
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
0	1	2	3	4	5	6	7	8	9	10

Z. Welche (Schul-)Note geben Sie der Lebensqualität in der Gemeinde Lesachtal?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

17.a In welcher Art von Gebiet leben Sie?

- ☐ Großstadt
- ☐ Vorort oder Außenbereich einer Großstadt
- ☐ Kleinstadt
- ☐ Dorf
- ☐ abgelegener Weiler/ländliche Gegend mit Streusiedlung

19. Anzahl an Personen in Ihrem Haushalt:

- ☐ 1 Person
- ☐ 2 Personen
- ☐ 3 Personen
- ☐ 4 Personen
- ☐ 5 oder mehr Personen

20. Altersklasse:

- ☐ 15 bis 17 Jahre
- ☐ 18 bis 25 Jahre
- ☐ 26 bis 35 Jahre
- ☐ 36 bis 45 Jahre
- ☐ 46 bis 55 Jahre
- ☐ 56 bis 65 Jahre
- ☐ 66 bis 75 Jahre
- ☐ 76 bis 85 Jahre
- ☐ 86 Jahre oder älter

21. Geschlecht:

- ☐ weiblich
- ☐ männlich
- ☐ Sonstiges

22. Höchste abgeschlossene Ausbildung (gemäß *International Standard Classification of Education*):

- ☐ frühkindliche vorschulische Erziehung/Bildung (unterhalb der Primarstufe)
- ☐ Primarstufe (Volksschule/Grundschule/Primarschule)
- ☐ Sekundarstufe I (Unterstufe/Mittelstufe)
- ☐ Sekundarstufe II (Oberstufe)
- ☐ Postsekundare Bildung (unterhalb des Tertiärbereichs)
- ☐ kurze tertiäre Bildungsprogramme (unterhalb der Bachelorstufe)
- ☐ Bachelor- oder gleichwertiges Niveau
- ☐ Master- oder gleichwertiges Niveau
- ☐ Doktorats- oder gleichwertiges Niveau
- ☐ Ich weiß es nicht.

24. Was ist Ihre derzeitige Stellung?

- ☐ beschäftigt/erwerbstätig
- ☐ arbeitslos
- ☐ Student/in
- ☐ in Pension/Rente
- ☐ Sonstiges: .....

23. *Wenn „beschäftigt/erwerbstätig" (bzw. wenn „in Pension/Rente", dann ehem. Beruf):*
Welche der folgenden Optionen beschreibt Ihren Beruf am besten?

- ☐ fachliche bzw. technische Tätigkeit (z. B. Arzt/Ärztin, Lehrer/in, Ingenieur/in, Künstler/in)
- ☐ Tätigkeit in der höheren Verwaltung (z. B. Bankier, leitende/r Angestellte/r eines großen Konzerns, hohe/r Regierungsbeamter/-in, Gewerkschaftsfunktionär/in)
- ☐ Bürotätigkeit (z. B. Sekretär/in, Büroangestellte/r/Beamter/-in, Büroleiter/in, Buchhalter/in)
- ☐ Tätigkeit im Verkauf (z. B. Verkaufsleiter/in, Ladenbesitzer/in, Verkäufer/in, Versicherungsvertreter/in)
- ☐ Tätigkeit im Dienstleistungsbereich (z. B. Restaurantbesitzer/in, Polizist/in, Kellner/in, Hauswart/in, Friseur/in, Streitkräfte)
- ☐ Facharbeiter/in (z. B. Vorarbeiter/in, Automechaniker/in, Buchdrucker/in, Werkzeugmacher/in, Elektriker/in)
- ☐ angelernte/r Arbeiter/in (z. B. Maurer/in, Busfahrer/in, Tischler/in/Schreiner/in)
- ☐ ungelernte/r Arbeiter/in (z. B. Hilfsarbeiter/in, Portier/in, ungelernte/r Fabrikarbeiter/in)
- ☐ landwirtschaftliche Arbeitskraft (z. B. Landwirt/in/Bauer/Bäuerin, Landarbeiter/in, Traktorfahrer/in, Fischer/in)
- ☐ Ich weiß es nicht.

25. Welche der folgenden Beschreibungen kommt dem am nächsten, wie Sie Ihr Haushaltseinkommen heute einschätzen?

- ☐ mit dem vorhandenen Einkommen angenehm zu leben
- ☐ mit dem vorhandenen Einkommen auszukommen
- ☐ dass es mit dem vorhandenen Einkommen schwerfällt
- ☐ dass es mit dem vorhandenen Einkommen sehr schwerfällt

26. Möchten Sie in Bezug auf Ihre Lebensqualität etwas ergänzen?

.....
.....
.....
.....
.....

***Vielen Dank** für Ihre Zeit und Ihre Mitwirkung!*

Wenn Sie über die Forschungsergebnisse informiert werden möchten, können Sie dafür hier Ihre E-Mail-Adresse angeben:

.....

Field survey in Austrian case studies 2023 – list of interviewers
The field-survey interviews in the first three Austrian case-study municipalities Eisenerz (Styria), Lesachtal (Carinthia) and Tullnerbach (Lower Austria) in July and November 2023 respectively were conducted by 60 persons including the following 59 persons who authorized the PSAC to publish their names (58 students and one lecturer at the University of Vienna, Department of Geography and Regional Research). [Please note: 53 persons in 2023 each conducted interviews in one case-study municipality, the six persons in italics even in two of the three municipalities.]:

Leoš Ackermann
Leon Albrecht
Nina Ambros
Jannes Baranowsky
Glenys Laetitia Bischoff
Anna Christmann
Verena Damiani
Katharina Deflorian
Jonas de Seriis
Florian Dialer
Zara Emilia Dobrindt
Luis Fink
Julius Griebsch
Áron Horváth
Bernadette Jedele
Felix Gregor Jirku
Bernadette Kakuska
Timo-Helmut Kamaryt
Joscha Kirschner
Lisa Königer
Dominik Kugler
Carl Alexander Löff
Bernhard Loibl
Finja Loup
Charlotte Maier
Nike Malmendier
Markus Marschall
Jan Moravec
David Muncan
Marwin Nehl
Niklas Neustätter
Valentin Parizek
Lena Peschel
Sebastian Peters
Virginia Pfeifer
Julian Rabé
Karsten Reichelt
Cornelia Roither
Alan Rothkopf
Peter A. Rumpolt
Anastasija Schangin
Dorian Scheifinger
Janne Scherenberg
Hendrik Schilling
Konrad Schmitz
Noah Schreiber
Leandra Schwippe
Daniel Seisenbacher
Oliver Selenic
Viola Sievert
Emely Claire Sittner
Leo Steinwendtner
Walter Stojan
V. Uzan
Lisa Vasicek
Selina Vollmair
Larissa Katharina Voss
Victoria Carola Zoffl
Zoe Zweifler

Thanks to all the students at the University of Vienna (Bachelor in Geography programme, study years 2022/2023 and 2023/2024) who conducted field-survey interviews on the topic "Quality of Life" in the scope of overall six case studies in Austria.

Annex 1.7: Good practice collection form and process

The purpose of this good practice collection was to prepare an overview of potential measures/ instruments / initiatives that could contribute to securing better quality of life in the Alpine area. Here, we focus on the measures that could be implemented via spatial planning or refer to regional planning. Furthermore, the good practices refer to the Alpine situation; this means that they should be relevant and applicable in the Alpine context (dispersed settlement, mountainous area and so on).

Some of the examples have been identified already in the governance framework questionnaire. Among those are:

- Multifunctional forests (DE, Bavaria) – several policy tools to conserve, sustainably use and adapt forests in times of climate crisis and thus their impacts on quality of life.
- The Swiss Federal Policy for rural and mountainous areas (CH) – coherent spatial development, aligned with the Swiss spatial concept of maintaining, and strengthening internal cohesion in Switzerland and further connecting the mutual interdependencies that exist between urban, rural and mountainous areas.
- New Regional Policy (CH); support for mountainous regions, rural areas, and border regions to cope with changes in economic structures.
- Parks of National Importance (CH) – to preserve rich landscapes, biodiversity, and cultural assets and increase their sustainable economic and social development.
- The French interregional governance of Alpine Massif (FR) – promotion of living well in the mountains and adapting lifestyles to climate change, as well as financial provision to improve QoL; seeking to achieve solidarity, services, mobility between cities, valleys, villages, and ski resorts.
- Indicators 21 (FR) – development model which consider natural resources and human well-being.
- Agenda 21, adopted by Region Pays de la Loire (FR); programme for sustainable development.
- Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) as tools for considering development, QoL, and environmental sustainability respectively.
- Legislative Decree 104/2017 and 152/2016 (IT); promote quality of human life through preserving and improving environmental conditions and the prudent and rational use of natural resources.

However, since the questionnaire was filled in only by ministerial representatives or equivalent, we extended the inquiry to all members of the WG. The good practice examples were derived from existing or previous Interreg projects (see www.keep.eu), ARPAF financed initiatives, state measures etc. The examples target at least one of the QoL RSA10 identified topics, namely environment, infrastructure and services, work and financial conditions, social relations and governance. The measures were used to contribute to the following chapters of the RSA10 report:

- 2 Life in the Alps as it is
- 5 How does and can the Alpine convention contribute to quality of your life?
- 6 A way forward – policy recommendations

Each of the good practice examples is described with the following elements:

- **Name of the measure:** name of the project, measure, initiative, and so on.
- **Quality of life topic:** select one of the five RSA10 QoL topics – Environment/ infrastructure and services/ work and financial conditions/ social relations/ governance
- **Implemented by:** stakeholders in charge of implementation of the measure, e.g. ministry, regional development agency etc.

- **Time frame (year, period):** in what year/period was the measure implemented, and for what time period is the measure relevant.
- **Location:** in which location (country, region, local communities, other type of area) was the measure implemented.
- **Description of the measure:** explain briefly what the aims and objectives of the measure were.
- **Description of (potential) impact on quality of life:** what were the results of implementing the measure; how has quality of life changed.
- **Target groups:** who were the recipients of the results of the measure, choose among the listed options – youth / children / elderly / students / unemployed / migrants / women / farmers / tourists / NGO's / enterprises; under category "other" also possible to write other target group(s).
- **Funds (gov. level, multiple answers):** explain what funds were used to finance the measure; choose among the listed options – EU / supranational / national / regional / local / I do not know; multiple answers are possible.
- **Website/more information available:** if possible, please, provide us with the website where more information is available.

The form for collection will be provided in a digital format via the platform 1ka.arnes.si.

Name of the measure:	
Quality of life topic:	Environment/ infrastructure and services/ work and financial conditions/ social relations/ governance
Implemented by:	
Time frame (year, period):	
Location:	
Description of the measure:	
Description of (potential) impact on quality of life:	
Target groups:	Youth / children / elderly / students / unemployed / migrants / women / farmers / tourists / NGO's / enterprises / other:
Funds (gov. level, multiple answers)	EU / supranational / national / regional / local / I do not know.
Website/more information available:	

TABLE 1
The form for the collection of good practices

Name of the measure:	**Anticipate future jobs on alpine remote areas**
Quality of life topic:	Environment/ infrastructure and services/ **work and financial conditions**/ social relations/ governance
Implemented by:	Edmund Mach Foundation
Time frame (year, period):	01/03/2018 * 29/02/2020
Location:	Remote Alpine regions: Trentino (IT), South Tyrol (IT), Styria (AT), Kungota area (SI) and Valposchiavo (CH).

TABLE 2
An example of the measure / project to be promoted as a good practice

Name of the measure:	Anticipate future jobs on alpine remote areas
Description of the measure:	The Alpine region is particularly vulnerable to negative demographic trends, as these can undermine its chances of future local development. The Alpsjob project facilitated the implementation of the EUSALP action plan concerning the challenges of depopulation and the "brain drain" in rural Alpine areas. In order to do this, the firstly identified the changing needs for new jobs, and then identified future job profiles and contexts so that they could prepare recommendations for the implementation of measures to future labour demands and offers, and raise awareness by training, as well as the dissemination of the results.
Description of (potential) impact on quality of life:	Improvement of skills to catch job opportunities, tackling the brain drain, decrease depopulation in remote Alpine areas, spread of competences amongst stakeholders and agents of change, adaptation to (anticipation of) local opportunities for the labour market, innovation/collection of insights and strategic indications for possible future-proof projects of local development in collaboration with the local communities, fostering the awareness of entrepreneurial and social actors on the importance of involving young people, building strategies for local development, looking at the medium-long term and the related uncertainties.
Target groups:	**Youth (15 to 34 years old)** / children / elderly / students / unemployed / migrants / women / farmers / tourists / NGO's / enterprises / other:
Funds (gov. level, multiple answers)	EU / **supranational – ARPAF** / national / regional / local / I do not know.
Website/more information available:	https://eventi.fmach.it/alpjobs

Annex 6.1: Table of governmental measures supporting good quality of life

	Original Title / or Responsible Institution	Description
BY(DE)	Multifunctional forests	Multifunctional forests (e.g., for timber, energy, protection from natural hazards, purification of water and air, human recreation, forestry jobs, and value chain) are crucial for the quality of life in rural and urban areas. There are several policy tools to conserve, sustainably use and adapt forests in times of climate crisis and thus their impacts on quality of life: Advice and education for forest owners; financial incentives; monitoring of compliance with the legal framework; voluntary forest certification
CH	Politik des Bundes für die ländlichen Räume und Berggebiete, ARE	The Swiss Federal Policy for rural and mountainous areas forms a framework for the development of rural and mountain areas whilst also serving various federal agencies as a guide for their sectoral policies and strengthening cross-sectoral cooperation at the federal level. The policy is working towards coherent spatial development, aligned with the Swiss spatial concept of maintaining, and strengthening internal cohesion in Switzerland and further connecting the mutual interdependencies that exist between urban, rural and mountainous areas.
CH	NRP – Neue Regionalpolitik	The New Regional Policy is a joint federal government and cantons support for mountainous regions, rural areas, and border regions coping with changes in economic structure. The NRP programmes aim to contribute to job creation and the maintenance of decentralised settlements. Furthermore, the NRP provides cross-border, transnational and interregional cooperation aligned with the ETC – European Territorial Cooperation. The programme runs under the State Secretariat for Economic Affairs (SECO – Staatssekretariat für Wirtschaft)
CH	Pärke von nationaler Bedeutung	Parks of National importance are characterised by rich landscapes, biodiversity and cultural assets. To preserve them and increase their sustainable economic and social development, the local communities, together with cantons, established t designated reserves under the responsibility of The Federal Office for Environment (BAFU – Bundesamt für Umwelt).
FR	Convention interrégionale du Massif des Alpes 2021–2027	The French interregional governance of Alpine Massif in its second axis (*living well in the mountains and adapt lifestyles to climate change)* includes financial provisions to improve QoL, aiming at solidarity, services, mobility between cities, valleys, villages, and ski resorts. The main objectives are: 1. to improve living conditions in mountains for all year round and seasonal residents (integrated and diversified housing, energy performance, public spaces, facilities and services, access to education, training, and employment), 2. Mobility strategies and services: regular or on demand, particularly for e accessibility to villages, resorts and tourist sites (multimodal transport hubs, soft mobility, interregional public transport – railway), aligned with SRADDET's plans, 3. Intermunicipal cooperation in partnership with local populations,
FR	Region Nord-Pas-de-Calais	In 2003, the region set up the project Indicateurs 21 as a new model of development which is more mindful of natural resources and human well-being Three synthetic indicators have been established: 1.) ecological footprint, measuring the man-made pressure exerted on nature; 2.) the human development index (HDI-2), combining health, education, living standard, as defined by the UNDP, 3.) The Social Health Index (SHI) summarises variables of multidimensional aspects of social health in regions. The indicators were applied on municipal and regional levels in Nord-Pas-de-Calais.
FR	Region Pays de la Loire	In June 2009, the region adopted Agenda 21, an action programme for the region's sustainable development and a road map of 163 realistic, pragmatic and concrete actions for a united and responsible 21st century.
IT	VIA & VAS	Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) have been in force since 1986 and 2007, respectively. At the national level, the Technical Committee Verification Environmental Impact – VIA VAS (CTVA) evaluates projects and plans/programs of national interest. These procedures are tools for combining development, QoL and environmental sustainability.
IT	Legislative Decree 104/2017 and 152/2016	Legislative Decree 104/2017 and 152/2016 both aim to promote the quality of human life through preserving and improving environmental conditions and the prudent and rational use of natural resources. The environmental assessment of plans and programs aims to ensure a high level of environmental protection and contribute to the integration of environmental considerations when drawing up and implementing plans and programs.

Annex 6.2: Table of financial incentives and instruments

Country / Policy	Original Title	Description
AT	Klima Energie Fonds +	Since 2007, the Climate and Energy Fund has supported energy-related research projects, environmentally compatible transport projects, and measures to bring climate-friendly energy technologies to market.
AT	KLAR! (Vorbereit auf die Klimakrise	The pilot programme for the Climate change adaptation model regions for Austria is funded by the Austrian Climate and Energy Fund and offers a process-oriented approach for municipalities to raise awareness of climate change adaptation and implement concrete actions at a regional level. A two-stage call asks for a general concept in conceptualisation and implementation phase, which is further developed in a continuation phase. The communities and regions must, in the first year, define a minimum of 10 specific measures for adapting to climate change which are then further monitored during the financing period
AT	Klimabündnis	Climate Alliance is a municipal climate protection network within Austria that has been operating since 1990 and is located in nine regional offices across Austria. Its focus is awareness raising, networking, training and education, implementation of projects and climate protection, justice, and climate change adaptation.
AT	e5-Programm für energieeffiziente Gemeinden	The Austrian Federal Ministerial program for **energy efficient municipalities and towns** encourages local actors to act in sustainable manners at all levels when it comes to dealing with energy, its consumption, mobility, and the economy. The e5-program offers consultancy and certification services to towns and municipalities committed to energy transition and climate protection to define measures in six areas (development and spatial planning strategy, buildings and facilities, supply and disposal of energy, water, waste-water and waste, mobility, internal organisation and raising awareness, motivation and cooperation activities).
BY (DE)	Bavarian State Ministry of Economic Affairs, Regional Development and Energy Funding Instrument	Funding Instrument: Regional Management provides funding for regional initiatives to implement innovative projects at a regional level and to support intermunicipal and regional cooperation as well as networking between relevant stakeholders. All projects must address at least one future issue of regional development such as Regional Competitiveness, Settlement, Regional Identity, Climate Change and Energy or Demographic Change. Special funding can be provided for military conversion areas and projects dealing with land take reduction.
BY (DE)	VNP–"Bayerisches Vertragsnaturschutzprogramm"	The Bavarian contractual nature conservation programme uses considerable financial resources to maintain large areas of species-rich, aesthetically pleasing landscapes, such as alpine pastures and other habitats in the Alpine Convention area.
BY (DE)	LNPR–"Landschaftspflege-und Naturparkrichtlinien"	Within the framework of the landscape conservation and nature park guidelines, measures for the maintenance, restoration and creation of ecologically valuable habitats are promoted. The measures serve to promote the Bavarian biotope network and the implementation of the Bavarian biodiversity strategy. With the LNPR funding instrument, a significant contribution to QoL in terms of a recreational function in nature is made.
BY (DE)	KommKlimaFöR 2023	Funding guidelines for municipalities in the priority *Climate Protection in Municipalities* in the Bavarian Climate Protection Programme, provides financial support to Bavarian municipalities and partners of the Bavarian Climate Alliance for the implementation of climate protection projects (reduction of greenhouse gas emissions) and/or climate adaptation measures.
BY (DE)	WALDFÖPR	With the silvicultural support program Bavaria offers forest owners attractive incentives for a variety of silvicultural measures. The "Directive on the Promotion of Silvicultural Measures in Private and Corporate Forests" represents an important component in the urgently needed conversion of forests to more climate-tolerant state.

CH	Modellvorhaben Nachhaltige Raumentwicklung	**Pilot projects for Sustainable spatial Development** – Aligned with the Swiss spatial concept of "Sustainable Spatial Development", the Federal government, with local, regional and cantonal stakeholders gives incentive promoting new approaches and methods, developing solution ideas on pilot projects, which will improve the QoL, strengthen solidarity within and between regions and increase economic competitiveness. Several federal agencies and the Federal Office for Spatial Development *(ARE – Bundesamt für Raumentwicklung)* run the programme, and 31 projects were supported from 2020–2024 with a budget of CHF 3.9 million Swiss Francs.
CH	Förderprogramm nachhaltige Entwicklung	The Sustainable Development 2023–2024 Funding Programme focuses on meeting several Agenda 2030 SDGs and the SNE 2030 goals, and explicitly addresses sustainable housing and living**.** Various aspects of housing can be addressed to make an innovative contribution to implementing the 2030 Agenda. The funding program is an instrument of the Federal Office for Spatial Development *(ARE – Bundesamt für Raumentwicklung).*
CH	PAV – Programm Agglomerationsverkehr	**The Transport Agglomeration Program** *(PAV)* is a Federal government financial contribution to transport projects in cities and agglomerations. The program supports transportation projects that coordinate traffic and settlement development in a balanced and effective way. While new transport options bring settlement development, they create higher traffic volume and burden infrastructure. The Federal governmentpromotes coherent transport and settlement planning across municipal, cantonal and national borders in the agglomerations. The Federal Council intends to co-finance the agglomeration programs submitted for this purpose with CHF 1.6 billion Swiss Franks. The program is under the responsibility of the Federal Office for Spatial Development *(ARE – Bundesamt für Raumentwicklung).*
IT	Strategia Nazionale Aree Interne – SNAI	The National Strategy for Inner Areas is one of the strategic lines of intervention supported by European Structural Funds (ERDF, ESF and EAFRD), as well as national resources and local co-financing. The strategy aims to counter medium-term demographic decline in rural and mountainous areas by creating new income opportunities and increasing accessibility to essential services, with priority given to local public transport, education, and social-health services. For the National Strategy for Inner Areas a total of 591.2 million, has been allocated for the financial period from 2014–2023.
IT	'New Provisions for Mountain Areas'	The National Mountain Fund established by Law No. 97 of 31 January 1994 (Art. 2) on 'New Provisions for Mountain Areas', targets 4,018 mountainous municipalities by increasing Regional Funds for mountainous municipalities, excluding provincial capitals and those with over 40,000 inhabitants.
IT	Fund for the Development of Italian Mountains.	Fund for the Development of Italian Mountains: Law No. 234 of 31 December 2021, 'Bilancio di previsione dello Stato per l'anno finanziario 2022 e Bilancio pluriennale per il triennio 2022–2024', Article 1, paragraphs 593, 594, 595 and 596, established the Fund for the Development of Italian Mountains. The Fund is aimed at the promotion and implementation of interventions for the protection and enhancement of the mountains, as well as measures in favour of the totally and partially mountainous municipalities of the Regions and Autonomous Provinces.
IT	The Border Municipalities Fund	The Border Municipalities Fund implements projects in 48 border municipalities close to the autonomous provinces of Trento and Bolzano which are focused on the promotion of a more balanced and harmonious development in the border areas of Trentino, South Tyrol, Veneto, and Lombardy.
IT	Green Communities National Strategy (SNGC)	Green Communities National Strategy (SNGC) (established by Law No. 221 of 12 December 2015), aims to balance resources in rural and mountain areas by establishing the "Green Communities National Strategy" *(Strategia Nazionale delle Green Community).* The local communities are coordinated in implementing sustainable development plans with regards to energy, environment, economy and socially. PNRR has allocated 135 million euro to encourage the creation and growth of 30 Green Communities.

IT	DRAFT Strategia nazionale per la montagna italiana:	Draft legislation “Provisions for the development and enhancement of mountain areas“ *(“Disposizioni per lo sviluppo e la valorizzazione delle zone montane”)* was preliminary approved by the Council of Ministers on 10 March 2022, and was proposal from the Minister for Regional Affairs and Local Autonomies.

Annex 6.3: Overview of collected good practices via governance questionnaire

	Original Title	Description
EU	Rural Observatory	The Rural Observatory contributes to a better understanding of rural areas in the European Union, supports knowledge production, and aims to improve data collection on t EU legislative initiatives in rural areas. As a result, it provides evidence for policy making. The observatory offers relevant statistical data, indicators and analysis based on data gathered from multiple sources and representative territorial coverage when it comes to economic, social and environmental dimensions.
CoE	Council of Europe, SPIRAL – Societal Progress Indicators for the Responsibility of all	SPIRAL is a participatory approach to help society in a collective learning process and societal capacity building. I wants to ensure the well-being of all through co-responsibility of various stakeholders: citizens, public and private actors, on multiple levels: local, regional, national, European and even global. The CoE *Strategy for Social Cohesion* was first drafted in early 2000, and was last revised in 2010.
AT	Project trAILs	Eisenerz (Styria) Transformation scenarios by TU Wien, architecture and spatial planning students dealt with the industrial landscape of Munichtal in Eisenerz. The aim of the interdisciplinary course was the conception of development paths for brownfield areas which would respond to regional needs, objectives and expectations. The students prepared transformation scenarios for: a) wood park medium-sized businesses in the wood sector; b) iron valley and montane sector, its know-how for the future smart solutions, sustainability, efficiency and longevity of the montane sector and local value chains; c) Re&Upcycled city transforming AIL into Knowledge-HUB, where people meet, discuss, experiment and enjoy a good time together.
BY(DE)	Bavarian State Ministry of Economic Affairs, Regional Development and Energy	The regional management initiative of Kitzingen county: The "Strategy for Demography" project involves preliminary data collection on various QoL issues such as housing and accessibility for an aging society, youth participation, local supply, and healthcare. Based on these results, measures will be taken to improve the issues.
BY(DE)	Bavarian State Ministry of Economic Affairs, Regional Development and Energy	The regional management initiative Altmühl Jura:The "Altmühl-Jura" is implementing a project to enhance the vitality of the region. The measures include a campaign aimed at attracting medical professionals to work in rural areas, cohabitation models for senior citizens, and improving the safety and infrastructure for cyclists to promote more sustainable mobility.
BY(DE)	Bavarian State Ministry of Economic Affairs, Regional Development and Energy	The regional management initiative of Regen county (Arberland): The initiative is implementing a project to promote volunteering and active citizenship. To attract new interested citizens and better connect existing volunteers, they have established an information centre, a regional volunteering expo, and various networking events.
CH	Nachhaltige Lebensqualität in Pärken von nationaler Bedeutung	A research project of *the University of Bern, Centre for Development and Environment (CDE)* on the QoL, "We love Äntlibuech", captures the population's views on existing contradictions between QoL and sustainability in three Swiss nature parks of national importance and control group outside the park's perimeter. Compared to other OCED countries, Switzerland has an above-average QoL, which goes in hand with the high consumption of resources and further contributes to Switzerland's ecological footprint, which three times larger than planetary boundaries allow. The project results were exhibited to the public from September 2021 to March 2022.
LI	Lebensqualität in Liechtenstein erhalten und ausbauen	The biggest political party in Liechtenstein *Vaterländische Union* has established a working group on maintaining and improving QoL in Liechtenstein. They recognize that Liechtenstein has one of the highest QoL levels and that it requires good environmental conditions. They therefore focus on preserving intact and healthy habitats and biodiversity and finding solutions for current and future problems.

LI	Hilti Family Foundation	The Hilti Family Foundation allocates financial resources to help people help themselves whilst also encouraging self-responsibility and independent action. The promoted projects need to be based on entrepreneurial thinking and sustainability so that they can continue to have impact after the funding period s. The main areas are 1.) Applied Research and knowledge transfer in business, technology, and natural sciences, helping to develop the projects in the long-term; 2.) Projects supporting self-determined life, which enable people to participate in economic and social life in a self-determined manner; 3.) ensuring competitive location with high QoL, maintaining and improving the competitiveness and QoL in LIE and immediate region; 4.) projects promoting diverse ecosystems and biodiversity.
LI	Lebenswertes Liechtenstein	Lebenswertes Liechtenstein is an NGO focusing on preserving a high standard of living and an intact environment for future generations by supporting projects and initiatives that will advance Liechtenstein socially, ecologically and economically. Now makes sense as a sentence.
LI	Stiftung Zukunft	Stiftung Zukunft is a non-profit organisation, a liberal think tank, which focuses on economic and social policies that are relevant for the sustainable development and future viability of Liechtenstein. The research projects maintain exchanges between science, business and politics. One of their studies focused on economic growth, environment and QoL.

Annex 6.4: Table of networks[12]

[12] https://www.alpconv.org/en/home/organisation/observers/ and respected network webpages, linked above in the table (August 2023)

Network type	Original Title	Description	Funding
Thematic: AC Observer	ALPARC – Together for the Alps Area: FR, IT, CH, DE, AT, SI Webpage: https://alparc.org/	The Alpine Network of Protected Areas was founded in 1995 to support the Alpine Conventions' implementation, of the *Protocol on Nature protection and landscape conservation*. Covering the large area that runs from the French to the Slovenian Alps, the ALPARC network promotes the exchange of expertise, techniques and methods among the protected area's managers on three main topics: Biodiversity and Ecological Connectivity, Regional Development and Quality of Life, wand Education for Sustainable Development in the Alps.	ERDF Interreg Alpine Space National (FR, DE, CH, MC, LI) Regional (FR)
Thematic: AC Observer	EN: Alliance in the Alps – The Community Network DE: Alianz in den Alpen – Das Gemeindennetzwerk IT: Alleanza nelle Alpi – La Rete di comuni SI: Povezanost v Alpah – Omrežje občin FR: Alliance dans les Alpes – Le Réseau des communes Area: FR, IT, CH, DE, AT, SI Webpage: https://alpenallianz.org/	The network of Alpine municipalities from seven Alpine Countries. Founded in 1997 with the aim of promoting sustainable development of the Alpine living environment through AC implementation, focusing on the community-driven shaping of the future. Municipalities: AT (70), FR (124), IT (48), LI, (4), de (28), SI (5), CH (31)	
Thematic AC Observer	The Alpine town of the year Area: FR, IT, CH, DE, AT, SI, 23 towns awarded since 1997; Webpage: https://www.alpinetowns.org/	The Alpine town of the year is an association of Alpine towns which awards the title of the "Alpine Town of the Year" to the towns exhibiting a particular commitment to the AC implementation in a sustainable, balanced, economic, social and environmentally conscious way.	ERDF Interreg Alpine Space Membership towns
Thematic AC Observer	CIPRA – Living in the Alps Area: AT, DE, CH, LI, IT, SI, FR Webpage: https://www.cipra.org/en	CIPRA, the International Commission for the Protection of the Alps (1952), is a non-governmental umbrella organisation with national representatives and one regional representative in seven Alpine countries, and represents more than 100 associations and organisations. CIPRA works towards achieving sustainable development in the Alps and strives to preserve natural and cultural heritage, maintain regional diversity, and provides solutions for cross-border problems in the Alpine region.	ERDF Membership, Donations
Thematic: AC Observer **Regional network**	ISCAR – International Scientific Committee on Research in the Alps Area: Alps Webpage: http://iscar-alpineresearch.org/	ISCAR promotes interdisciplinary collaboration in the entire area of Alps in relation to Alpine research and supports the transfer of research results into practice. They are ensuring continuity and scientific quality of the Forum Alpinum on relevant issues and including them in the research programmes, thus supporting AC implementation.	
Thematic: AC Observer	CLUB ARC ALPIN – CAA Area: IT, DE, FR, AT, SI, CH Webpage: https://www.club-arc-alpin.eu/en/activities/	The CAA is the umbrella organisation of the eight leading mountaineering associations of the alpine arc with more than 2 million members in total. Committed to AC implementation, through three commissions (mountaineering, training and safety; huts and trails; nature protection and alpine spatial planning), which are platforms for the exchange of information and for the common development.	

Thematic: AC Observer **Regional network**	EN: The Alpine association of Mountaineering Villages DE: Bergsteigerdörfer IT: Villagi dell' Alpinismo SI: Gorniške vasi Area: AT, DE, IT, SI Webpage: https://eng.bergsteigerdoerfer.org/12-1-About-us.html	The Mountaineering Villages initiative is a project/platform aligned with the Alpine Convention which focuses on Alpine and European collaboration of Alpine mountaineering associations on topics of sustainable tourism, sports and recreational activities, building local added value, without the expense of natural world and the environment. The network envelops between Austrian (22), Slovenian (2), Italian (7), German (4) and Swiss (2) villages/towns. The initiative has been financially supported by the Austrian ministry (BMLFUW) and by ERDF funds (2007-13; 2014-20). https://eng.bergsteigerdoerfer.org/	
Thematic: AC Observer **Regional network**	The Alps-Adriatic Alliance (AAA) DE: Alpen-Adria IT: Alpe-Adria SI: Alpe-Jadran HR: Alpe-Jadran HU: Alpok-Adria Area: IT, SI, HR (HR 1; 2, 5; 6; 7; 8; 18; 20), AT (1; 2; 6); HU-VA Webpage: https://alps-adriatic-alliance.org/	Founded in 2013 as a successor of the Alps-Adriatic Working Community (ARGE). It is a dynamic and flexible network for project-oriented cooperation across Alps-Adriatic area from Northern Italy to Hungary in the east, Austria to the north and Croatia to the south. It aims to efficiently use transnational EU programmes for the benefit of members. Cooperation covers agriculture, culture, economy, energy, environment, healthcare, education, mobility, sports, and tourism.	
Thematic: AC Observer **Regional network**	DE: ARGE ALP – Die Alpen leben IT: ARGE ALP – Le Alpi vivono Area: AT, DE, IT Webpage: https://www.argealp.org/de	ARGE Alp is a community of 10 Alpine regions which, since 1972, has advocated Alpine concerns, targeting central governments and European institutions, building cross-border bridges, and strengthening understanding between inner and extra Alpine areas.	
Thematic: AC Observer **Regional network**	PRO MONT BLANC Area: Franco-Italian-Swiss Massif Webpage: https://www.pro-mont-blanc.org/	Pro Mont-Blanc is a tri-national umbrella NGO, associating Alpine clubs, local (35 municipalities), regional, national (3 countries) and international environmental organisations for the better protection and management of the Franco-Italian-Swiss massif/ It promotes sustainable development within prosperous tourism.	
Thematic: AC Observer **European network**	EUROMONTANA Area: 20 European countries; in the Alpine area (AT, FR, IT, SI, CH) Webpage: https://www.euromontana.org/en/	A multisectoral association for cooperation and the development of mountain areas. It promotes lively mountains, integrated and sustainable development, and quality of life in mountain areas. It is representative of 75-member organisations from 20 European countries. Since 2014, the working group on AC and EUSALP strategy is active.	
Thematic: AC Observer **European network**	FIANET – European Mountain Resorts	An association of cableway operating industries and cableway operators at the European level.	
Thematic: AC Observer **European network**	AEM Area: Webpage:	AEM, established in 1991, aims to defend mountain territories in Europe and secure recognition for sustainable development. It is supported by the European Parliament Intergroup on Mountains, ANEM, and UNCEM. AEM unites elected representatives, regional authorities, and organizations from 12,000 communities, 100 provinces, and 50 regions from 11 member states. Its seat is in Chambéry, France, and it has an office in Brussels. The association's goal is to promote sustainable and balanced development in mountain regions.	European Parliament Intergroup on Mountains, ANEM (French National Association of Elected Representatives from Mountains Regions UNCEM (Union of Mountain Towns and Communities)

Thematic: AC Observer **Global network**	WWF – World Wide Fund for Nature Area: Global, Local offices – EALP Webpage: https://wwf.panda.org/	WWF is a global nature and environmental protection organisation, with a mission to conserve nature and to reduce pressures and threats to the diversity of life on Earth. Its focus is on the interactions between man and nature. WWF works with communities, businesses, politicians political, economic and decision-making processes. The WWF cooperates within local WWF offices (AT, FR, IT, CH) under the umbrella European Alpine Program (EALP) to implement the comprehensive and transboundary conservation strategy of the Alps by adopting large-scale and long-term conservation and ecoregional approaches. It supports the objective of the AC and Convection on biological diversity.	
Thematic: AC Observer **Global network**	IUCN – International Union for Conservation of Nature Area: Global, more than 150 countries Webpage: https://www.iucn.org/	IUCN is a global environmental network and global authority on the status of natural world and its safeguarding measures. It helps the world to find pragmatic solutions to pressing environmental and developmental challenges, and fosters the development of policies, legislation, and best practice.	Membership countries
Thematic: AC Observer **Global network**	UNEP – United Nations Environment Programme Area: Global, Webpage: https://www.unep.org/	UNEP addresses global and regional environmental issues, points out emerging issues to governments and the international community, and coordinates the development of environmental policies.	Voluntarily contributions of partners

Annex 7.1: Detailed description of collected good practices

Good practice: 1

1. Name of the measure:
Bergsteigerdörfer – Mountaineering villages

2. Quality of life topic:
Environment, Infrastructure and services, Work and financial conditions, Social relations, Governance

3. Implemented by:
Austrian Alpine Association, Department of Spatial Planning and Nature Conservation

4. Time frame (year, period):
Started in 2008

5. Location:
38 municipalities within the perimeter of the Alpine Convention (Effective August 2023)

6. Description of the measure:
The title of mountaineering village is understood as a seal of quality. Applicants (municipalities) have to fulfil a strict catalogue of criteria before they are allowed to officially carry the designation. The main contents or principles of the mountaineering villages initiative are: (1) Preservation of local culture and tradition; (2) Sustainable tourism without technical development measures, a small number of high-quality accommodation establishments and a focus on a sophisticated range of mountain sports; (3) Development typical of the village; (4) Sustainable mountain and forestry management with a focus on the production and marketing of local and regional products; (5) Active nature and landscape protection; (6) Soft mobility and extensive renunciation of motorized traffic; (7) Communication and exchange of information among each other.

7. Description of (potential) impact on quality of life:
They guarantee tourism offers oriented towards mountaineers, show excellent landscape and environmental quality, and are committed to the preservation of local cultural and natural values. As alpine competence centres, mountaineering villages focus on personal responsibility, ability and sovereignty, as well as the goal of sustainable development in the Alpine region in harmony with relevant legal provisions and programs. E.g.: Mobility and transport: Mountaineering villages make special efforts for those guests who want to reach the place without their own motor vehicle. Communities are actively engaged in maintaining and improving public transport, paying special attention to the needs of guests; Nature and landscape protection: The mountaineering villages strive for the permanent preservation and new establishment of protected areas. In doing so, the communities see themselves as active partners in the maintenance and care of these areas.

8. Target groups:
Youth, Children, Elderly, Students, Unemployed, Migrants, Women, Farmers, Tourists, NGOs, Enterprises

9. Funds (gov. level, multiple answers):
EU, National, Regional, Local

10. Website/more information available:
https://www.bergsteigerdoerfer.org/

Good practice: 2

1. Name of the measure:
Bergwaldoffensive (BWO)

2. Quality of life topic:
Environment, Social relations

3. Implemented by:
Bavarian State Ministry of Food, Agriculture and Forestry (Bayerisches Staatsministerium für Ernährung, Landwirtschaft und Forsten); Food, Agriculture and Forestry Offices of the Alpine Region (Ämter für Ernährung, Landwirtschaft und Forsten der Alpenregion)

4. Time frame (year, period):
established in 2008; ongoing

5. Location:
Bavarian alpine Region; in the area of responsibility of the Offices for Food, Agriculture and Forestry Rosenheim, Traunstein, Holzkirchen, Weilheim i. OB, Kaufbeuren and Kempten

6. Description of the measure:
"Bergwaldoffensive" (BWO) – State initiative to enhance measures to enable forests in the alpine region of Bavaria to adapt to climate change. The BWO as part of the Bavarian climate adaptation program covers, the whole Bavarian alpine region. It has existed since 2008 and supports private and municipal forest owners with various measures regarding forest management, stakeholder participation, awareness raising and knowledge transfer. The participatory approach and project-based character of BWO are unique within the Bavarian forest administration. Special staff members based at local forestry offices plan and manage projects in defined project areas to raise the resilience of mountain forests. They bring together stakeholders and society to balance competing interests and find applicable solutions as well as raise awareness of climate change and its risks to mountain and protective forests.

7. Description of (potential) impact on quality of life:
Raising awareness about climate change and its risks to mountain and protective forests. Resilient mountain forests protect quality of live in the Bavarian alpine region.

8. Target groups:
Regional and local authorities, Farmers, Other: Forest owners

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://bergwald-offensive.de/

Good practice: 3

1. Name of the measure:
KARE Climate Change Adaption at regional level (KARE Klimawandelanpassung auf regionaler Ebene) in the German Alpine Planning Region 17 Oberland

2. Quality of life topic:
Climate change adaptation

3. Implemented by:
German Alpine Planning Region 17 Oberland

4. Time frame (year, period):
/

5. Location:
German Alpine Planning Region 17 Oberland

6. Description of the measure:
The municipalities in Oberland are particularly affected by heavy rainfall due to their location in the Bavarian Alpine foothills. Extreme weather events can cause flash floods in the summer months and extreme snow loads in the winter and possess high potential for damage. At the same time, cities and municipalities here are confronted with enormous growth pressures, which are accompanied by increasing sealing and high competition for land. The combination of climate impacts and regional socio-economic developments means that the municipalities in the Oberland region have a particularly high need to adapt to heavy precipitation.

7. Description of (potential) impact on quality of life:
In order to develop suitable protection, precautionary and adaptation measures, the KARE project analyses both the risks arising from climate change and the socio-economic developments and land use that significantly determine current and future vulnerability trends and adaptation requirements. KARE elaborates practice-oriented information, analysis, and recommendations to facilitate risk governance and communicates on behalf of local decision makers.

8. Target groups:
Regional and local authorities

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://klimaanpassung-oberland.de/de-de/projektuebersicht/
https://energiewende-oberland.de/hp14944/Klimaanpassung-in-der-Region-Oberland-KARE.htm

Good practice: 4

1. Name of the measure:
Regional Health Resolution / Conference Southeastern Upper Bavaria (Regionale Gesundheitskonferenz Südostoberbayern, Planungsregion 18) / Passing of a resolution

2. Quality of life topic:
3.3.1 Access to medical treatment

3. Implemented by:
Regionaler Planungsverband Südostoberbayern

4. Time frame (year, period):
2014

5. Location:
Südostoberbayern, Planungsregion 18

6. Description of the measure:
In three plenary assemblies, numerous working group meetings, and through written and telephone community surveys, it was worked out in a one-year process there are opportunities to secure and improve medical care in rural areas. The resolution was adopted as a result of this process.
One of the most important issues in the South-East Upper Bavaria region is the spatial organisation of care areas. It was determined that although the current division of service areas into centre areas is a step in the right direction, the service areas are still too large and impractical. In addition, the working groups of the South East Upper Bavaria Regional Health Conference also dealt with the topics of "on-call service / emergency service" - "outpatient / inpatient interface" - "measures at municipal level" - "psychotherapeutic care".

7. Description of (potential) impact on quality of life:
A proposal for a new demarcation agreed in the region was presented which meets the needs and circumstances of the south-east Upper Bavarian region. Based on the criteria

developed and the methodology of the procedure, the demarcation could also be transferred to other regions.

8. Target groups:
Citizens, Regional and local authorities, Elderly, Workers, Patients

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://www.region-suedostoberbayern.bayern.de/regionalentwicklung/gutachtenkonzepte/regionale-gesundheitskonferenz/
Resolution of the Regional Health Conference: https://www.region-suedostoberbayern.bayern.de/files/RPV18_GutachtenKonzepte/RPV18_regGesundheitskonferenz/RPV18_Resolution_der_Regionalen_Gesundheitskonferenz_Suedostoberbayern.pdf

Good practice: 5

1. Name of the measure:
UNESCO Biosphere Reserve (BR) concept

2. Quality of life topic:
Environment, Social relations, Governance

3. Implemented by:
The Austrian Biosphere Reserve Managements

4. Time frame (year, period):
Since 2000

5. Location:
Four Austrian regions, including three Alpine regions: BR Großes Walsertal (in Vorarlberg): since 2000; BR Wienerwald (in Lower Austria and Vienna): since 2005; BR Salzburger Lungau und Kärntner Nockberge (in Salzburg and Carinthia): since 2012; BR Unteres Murtal (in Styria, outside AC area): since 2019

6. Description of the measure:
The UNESCO biosphere reserve concept represents a comprehensive protection and development instrument. Since it combines protection and (land)use and includes people of the region, it is tailor-made for cultural landscapes with high natural values. The BR managements therefore organise nature conservation projects where habitats and species need this protection and also initiates projects and initiatives contributing to a more sustainable economy. Zoning the region into core zones (natural zones), maintenance zones (buffer zones) and development zones (transmission zones) supports these aspirations.

7. Description of (potential) impact on quality of life:
The impact becomes visible and perceptible in the landscape and is a direct contribution to the quality of life of the population and a motor for sustainable regional development. Better ecosystem-services, more possibilities for sustainable tourism and leisure stay, better regional products, better sustainable circular economy as well as fresh air and clean water.

8. Target groups:
Citizens, Enterprises, Farmers, NGOs, Children, Tourists, Youth, Elderly, Migrants, Women, Students, Unemployed

9. Funds (gov. level, multiple answers):
EU, Supranational, National, Regional

10. Website/more information available:
http://www.biosphaerenparks.at/index.php/en/model-region

Good practice: 6

1. Name of the measure:
SmartAltitude, Interreg Alpine Space Project

2. Quality of life topic:
Infrastructure and services

3. Implemented by:
Les Orres municipality (FR), Electricite de France (FR), BSC Kranj (SI), RTC Krvavec (SI), Fondazione Bruno Kessler (IT), Trentino Sviluppo (IT), Austrian Academy of Sciences (AT), University of Milan (IT), Steinbeis 2i GmbH (DE), Center in Energy and Municipal Researches (CH)

4. Time frame (year, period):
/

5. Location:
Alpine ski areas in France, Italy, Slovenia, and Switzerland

6. Description of the measure:
Smart Altitude is a European project that aims to implement new tools to improve the use of energy and reduce greenhouse gas emissions in Alpine ski areas. The project develops new decision-making tools for ski operators and policy makers as well as innovative technical solutions to be tested in four living labs.

7. Description of (potential) impact on quality of life:
The SmartAltitude project is based on the premise that Alpine territories can adopt adaptation and mitigation strategies. Such strategies anticipate and reduce the adverse effects of climate change. The design and adoption of these strategies can help ski resort operators and policy-makers to dealing with new climatic conditions. The new measures and activities can build a new model for alpine winter tourism. The smartAltitude toolkit, developed by partners from Austria, France, Germany, Italy, Slovenia, and Switzerland includes tools to perform audit, set priorities, plan, implement, monitor and communicate strategies.

8. Target groups:
Enterprises, Regional and local authorities, NGOs, Children, Tourists

9. Funds (gov. level, multiple answers):
EU, Supranational

10. Website/more information available:
https://smartaltitude.eu/

Good practice: 7

1. Name of the measure:
Dialogues on wolves – strengthening shepherding networks in the Alps

2. Quality of life topic:
Environment, Social relations, Governance

3. Implemented by:
CIPRA International

4. Time frame (year, period):
10/2022–10/2024

5. Location:
France, Switzerland, Italy, Germany, Austria, Slovenia

6. Description of the measure:
Grazing in the Alps is essential for the preservation of its unique cultivated landscape and biodiversity. The return of wolves is one of many challenges facing shepherds: others include herd protection measures, the promotion of biodiversity, and educational work to avoid conflicts with other users. Meeting these challenges will require a transfer of knowledge between shepherds from the different Alpine countries. CIPRA is promoting this knowledge exchange with its project "Dialogues on wolves – strengthening shepherding networks in the Alps".

7. Description of (potential) impact on quality of life:
Support for coadaptation between humans and wolves. Improving conflict management skills of the stakeholders concerned around the issue of wolves, herd protection and humans. Preserving and promoting biodiversity in the Alps.

8. Target groups:
Farmers

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://www.cipra.org/en/cipra/international/projects/current/dialogues-on-wolves-2013-strengthening-shepherds2019-networks-in-the-alps

Good practice: 8

1. Name of the measure:
Amigo – Integrating Active Personal Mobility in Health Programmes of Organisations

2. Quality of life topic:
Environment, Infrastructure and services, Work and financial conditions, Other: Mobility

3. Implemented by:
Energy Institute Vorarlberg

4. Time frame (year, period):
2019–2022

5. Location:
Alpenrhein-Bodensee-Hochrhein region

6. Description of the measure:
Reducing cross-border car traffic and focusing more on active mobility through collaboration with participating pilot enterprises in the Alpenrhein-Bodensee-Hochrhein region.

7. Description of (potential) impact on quality of life:
- Improved institutional cooperation in the project area
- Improving the health of workers and the population
- Region and companies to become more attractive for skilled workers
- Modal shift of commuter routes towards climate-friendly mobility
- Improvement of the quality of life through reduced air and noise emissions
- Relieving the burden on transport infrastructure

8. Target groups:
Enterprises, Other: Workers

9. Funds (gov. level, multiple answers):
EU

10. Website/more information available:
https://www.cipra.org/en/cipra/international/projects/current/amigo-active-commuter-mobility

Good practice: 9

1. Name of the measure:
AlpSib – Capacity development of public and private organizations for Social Impact Bonds

2. Quality of life topic:
Infrastructure and services, Work and financial conditions

3. Implemented by:
Municipality of Pordenone (Lead partner)

4. Time frame (year, period):
11/2016–07/2019

5. Location:
Municipality of Pordenone (IT), Vorarlberg University of Applied Sciences (AT), Institute for Economic Research (SI), Regional Development Agency of Ljubljana Urban Region (SI), Eckert School (DE), Public Interest Group Training and Professional Insertion Academy of Nice (FR), Next Level Association (IT), Region of Valle d'Aosta (IT), Pordenone Technology Center (IT), FinPiemonte S.p.A. (IT), Bwcon GmbH (DE), Nice Metropole (FR), Home care services cluster in the French region of Provence-Alpes-Côte-d'Azur (FR), City of Augsburg (DE)

6. Description of the measure:
Due to demographic changes and economical challenges, the social sectors in most Alpine countries have suffered considerably. Resultant restricted financial resources cannot satisfy the needs of either aging populations or the increasing number of NEETs (young people not in education, employment or training). These growing societal challenges require social innovation and a new social economy which connects public-private-third sectors: the AlpSib project addressed NEET's and senior's needs by introducing innovative solutions such as social impact investments (SII), social impact bonds (SIB) and a Social Impact Investing Hub for knowledge sharing, and policy coordination.

7. Description of (potential) impact on quality of life:
1. Improved assistance to the capacity building of stakeholders in designing innovative social solutions and partnerships. 2. Better transnational networking of public-private-third sectors and capital-project matching. 3. A more harmonized approach to SII policies through cooperation. Only social solutions that prove to be effective are funded and the risk of new ones is transferred to investors.

8. Target groups:
Youth, Elderly, Unemployed

9. Funds (gov. level, multiple answers):
Supranational

10. Website/more information available:
https://www.alpine-space.eu/project/alpsib

Good practice: 10

1. Name of the measure:
CESBA Alps- CESBA ALPINE SPACE – SUSTAINABLE TERRITORIES

2. Quality of life topic:
Governance

3. Implemented by:
Piedmont Region (Lead partner)

4. Time frame (year, period):
12/2015–06/2019

5. Location:
Piedmont Region (IT), iiSBE Italy R&D (IT), Regional government of Lombardy (IT), Auvergne-Rhône-Alpes Énergie Environnement (FR), Veneto Region (IT), Regional Development Vorarlberg eGen (AT), E-Institute (SI), Munich University of Applied Sciences (DE), Association of Common European Sustainable Built Environment Assessment (CESBA) (AT), EnviroBAT-BDM (FR), Liechtenstein Institute for Strategic Development (LI)

6. Description of the measure:
Sustainable development has to be reflected at a local level. At the same time, the local level must be in line with the sustainable objectives defined at national and European levels. The CESBA Alps project generated the first tool for the sustainable development assessment of territories using a common methodology and a list of 280 indicators. It allows reflecting local standards and decrees in the sustainability field defining for each assessment criterion a territorial performance scale. Moreover, CESBA Alps defined 18 Key Performance Indicators in line with the UN 2030 Agenda and the goals of the EU strategy for the Alpine region (EUSALP) to assess the sustainability of territories at a transnational level.

7. Description of (potential) impact on quality of life:
The availability of assessment and decision-supporting tools will facilitate the implementation of innovative and efficient low carbon strategies and policy instruments. Current policy instruments are generally based on qualitative indicators. The possibility to implement the policy instruments, by means of the new assessment tools at territorial scale, measurable, verifiable and reliable indicators will increase quality and the level of implementation of low carbon policies. The population in general will benefit from a more sustainable and liveable built environment.

8. Target groups:
Other: local / regional authorities, SME (especially in the building sector), citizens

9. Funds (gov. level, multiple answers):
Supranational

10. Website/more information available:
https://www.alpine-space.eu/project/cesba-alps/

Good practice: 11

1. Name of the measure:
SmartVillages – Smart digital transformation of villages in the Alpine Space

2. Quality of life topic:
Infrastructure and services, Work and financial conditions

3. Implemented by:
Swiss Centre for mountain regions (Lead partner)

4. Time frame (year, period):
04/2018–10/2021

5. Location:
Swiss Centre for mountain regions (CH), University of Maribor (SI), University of Ljubljana (SI), Smartis d.o.o (SI), Poliedra – Service and consultancy centre of the Politecnico di Milano on environmental and territorial planning (IT), Development Agency Gal Genovese S.r.l. (DAGG) (IT), Energy and Environment Agency of Lower Austria (AT), Association for Networking Services and Territorial Development (FR), Regionalverband Südlicher Oberrhein (DE), Bodensee Standort Marketing GmbH (DE), Tiroler Zukunftsstiftung (AT), Software Competence Center Hagenberg GmbH (AT), Region Lucerne West (CH)

6. Description of the measure:
Alpine rural communities often lack good provision of services as well as favourable climates for entrepreneurship and social innovation. Digitalisation is a promising approach to counter this situation, but remains fairly underutilised. SmartVillages unlock

the potential of local actors to make their regions more attractive places in which to live and work through new forms of stakeholder involvement; they bring together policy makers, business, academia and the civil society. Finally, the transfer of the project results to the policy level contributes to improving the political framework conditions for digital innovation with regards to organisational, societal and technical aspects.

7. Description of (potential) impact on quality of life:
1) Assessing the level of smartness in test areas highlights where further action is needed to improve framework conditions for innovation in S3 key sectors; 2) Interlinks policy level, academia, business and civil society in regional stakeholder groups that collaborate transnationally, thereby enabling good framework conditions for generating innovation processes; 3) A digital exchange platform (DEP) that enables key findings and knowledge exchange among different stakeholders; 4) A toolbox that provides access to digital tools that support the development of framework conditions for innovation; 5) The transfer of results to the policy level improves the political framework conditions for digital innovation.

8. Target groups:
NGO's, Other: local / regional / national authorities, SME, public service providers, regional development agencies, business support organisations, education institutions

9. Funds (gov. level, multiple answers):
Supranational

10. Website/more information available:
https://www.alpine-space.eu/project/smartvillages/

Good practice: 12

1. Name of the measure:
LOS_ DAMA! – Landscape and Open Space Development in Alpine Metropolitan Areas

2. Quality of life topic:
Environment, Governance

3. Implemented by:
City of Munich (Lead partner)

4. Time frame (year, period):
11/2016–12/2019

5. Location:
City of Munich (DE), Grenoble-Alps Metropolis (FR), City of Vienna (AT), Salzburg Institute for Regional Planning and Housing (AT), City of Trento (IT), Piedmont Region (IT), Urban Planning Institute of the Republic of Slovenia (SI), Technical University of Munich (DE), Eberhard Karls University Tübingen (DE), University of Grenoble-Alps (FR), University of Applied Sciences Weihenstephan-Triesdorf (DE)

6. Description of the measure:
Land use pressure is dramatically increasing as Alpine cities grow and transform. In as Munich, around 8.500 flats are built every year to accommodate the 10–15.000 new inhabitants who arrive the metropolitan area each year. Green spaces in and around cities are in high demand for a variety of uses. LOS_ DAMA! unleashed the potential of peri-urban green infrastructure for sustainable development, by improving governance and planning. The project partners cooperated to protect liveable open spaces while also connecting people and green spaces throughout the Alpine region.

7. Description of (potential) impact on quality of life:
A viable network of Alpine metropolitan cities will enhance Alpine identity and provide the same with a strong voice at the EU level. Policy and stakeholders at all levels will benefit from joint learning and a wide range of innovative approaches for cross-sectorial communication, negotiation, mediation & conflict management. Improved planning & governance, sustained cooperation and better skills will successfully boost the valorisation of limited, valuable open spaces and their assets.

8. Target groups:
Farmers, NGO's, Other: local / regional authorities, citizens

9. Funds (gov. level, multiple answers):
Supranational

10. Website/more information available:
https://www.alpine-space.eu/project/los_dama/

Good practice: 13

1. Name of the measure:
PlurAlps – Enhancing capacities for a pluralistic Alpine Space

2. Quality of life topic:
Social relations

3. Implemented by:
Regional Development Vorarlberg eGen (Lead partner)

4. Time frame (year, period):
11/2016–10/2019

5. Location:
Regional Development Vorarlberg eGen (AT), CIPRA International Lab GmbH (AT), Regional Development Agency Upper Styria East GmbH (AT), Community Network Alliance in the Alps (DE), European Academy of Bozen-Bolzano (IT), Piedmont Region (IT), Franco Demarchi Foundation (IT), Urban Planning Institute of the Republic of Slovenia (SI), Auvergne Rhone-Alps Region (FR), Lucerne University of Applied Sciences and Arts (CH)

6. Description of the measure:
Pluralism as a strength of the Alps: this is what ten organisations in the PlurAlps project are committed to. The pilot regions demonstrated how integration can succeed with the help of municipalities, companies, and civil society. These experiences can now inspire others while giving insights into how to set up successful and sustainable integration projects. The project partners developed an instrument for social planning in municipalities that helps to improve the quality of life for the resident population and immigrants. The PlurAlps White Paper contains recommendations for politics and society: How can the attractiveness of peripheral areas in the Alps be increased? What strengthens social cohesion? and more.

7. Description of (potential) impact on quality of life:
R1: Municipalities are able to engage in social planning which considers aspects of integration that affect the quality of life of all citizens. R2: Capabilities of municipalities, SMEs, and social organisations for cross-sectorial cooperation for welcoming services are strengthened. R3: Knowledge and awareness regarding the integration of migrants in Alpine municipalities and regions is improved. The results contribute to improving conditions for social innovation in municipalities and SMEs.

8. Target groups:
Migrants, NGO's, Enterprises, Other: local public authorities (municipalities), regional public authorities, SMEs and business support organisations, and interest groups. Citizens.

9. Funds (gov. level, multiple answers):
Supranational

10. Website/more information available:
https://www.alpine-space.eu/project/pluralps/
https://www.interreg.de/INTERREG2021/DE/Projekte/GuteBeispiele/WirtschaftArbeitLeben/PlurAlps/pluralps_node.html

Good practice: 14

1. Name of the measure:
Sozialfestival „Tu was, dann tut sich was." (Social festival „Keep The Ball Rolling!")

2. Quality of life topic:
Infrastructure and services, Social relations, Governance

3. Implemented by:
The Sinnstifter' (a group of private Austrian Foundations) and the international research centre for social and ethical issues (ifz)

4. Time frame (year, period):
2011–2016

5. Location:
Four Austrian regions, including three Alpine regions; Lungau (in Salzburg): 2011; Steirische Eisenstraße (in Styria): 2012–2013; Mühlviertler Alm (in Upper Austria, outside AC area): 2013–2014; Mostviertel Mitte (in Lower Austria): 2015–2016

6. Description of the measure:
The project aimed to enhance quality of life by (i) promoting the self-efficacy of people and communities, (ii) appreciating local knowledge, and (iii) tackling the problems of poverty and social inequality. These aims have been implemented through project proposals submitted by the regional population. Requirements to achieve the objectives of (a) the sustainable implementation of projects, (b) an inclusive approach to gaining addressees, and (c) a collaborative atmosphere among stakeholders of the projects that have been published beforehand (also evaluated at the end of the project and two years later).

7. Description of (potential) impact on quality of life:
The mutual awareness of particular regional social problems and challenges grew by implementing the project's measures. The stigmatisation of income-poor households has been reduced (e.g., by a second-hand shop in the rural periphery), the mobility of older people has been improved (e.g., by collectively organised bus trips within the region), and the integration of migrants has been advanced (e.g., by organising an annual party of domestic and foreign inhabitants, exchanging life experiences).

8. Target groups:
Youth, Children, Elderly, Migrants, Women, Farmers

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
http://www.tu-was.at/

Good practice: 15

1.Name of the measure:
4 Gemeinden, 1 Lebensraum (4 Municipalities, 1 Living Space)

2. Quality of life topic:
Infrastructure and services, Environment, Work and financial conditions, Social relations, Governance

3. Implemented by:
Municipalities Kartitsch, Obertilliach, Untertilliach and Lesachtal (Austria)

4. Time frame (year, period):
Since 2019

5. Location:
Municipalities Kartitsch, Obertilliach, Untertilliach and Lesachtal

6. Description of the measure:
The project "4 Gemeinden, 1 Lebensraum" (4 Municipalities, 1 Living Space), a LEADER project on cooperation management between Lesachtal and Tiroler Gailtal, aims at executing a number of project ideas and measures/actions which have been suggested through civic participation. Measures for closer cooperation in tourism, economy, agriculture, mobility and so on have been developed further or implemented through the four neighbouring rural municipalities Kartitsch, Obertilliach, Untertilliach (in East Tyrol) and Lesachtal (in Carinthia) collaborating with each other.

7. Description of (potential) impact on quality of life:
Closer cooperation, new tourist products, collaboration

8. Target groups:
Citizens, Enterprises, NGOs, Youth, Children, Elderly, Students, Unemployed, Migrants, Women, Farmers, Tourists

9. Funds (gov. level, multiple answers):
EU, Local

10. Website/more information available:
https://www.facebook.com/4Gemeinden1Lebensraum/
https://www.raumschmiede.net/projekte/70-pages/portfolio/buergerbeteiligung/67-vier-gemeinden-ein-lebensraum.html

Good practice: 16

1. Name of the measure:
"KastlGreissler" – self-service (container) grocery stores with mainly regional products for daily needs

2. Quality of life topic:
Infrastructure and services

3. Implemented by:
company "Kastl-Greissler GmbH" and their local merchants ideally with support of municipalities

4. Time frame (year, period):
since 2020

5. Location:
19 KastlGreissler shops in the whole Austria: 2 in Tyrol, 3 in Carinthia, 8 in Burgenland, 5 in Lower Austria and 1 in Styria; altogether 9 out of 19 shops located within the AC area (Effective December 2023)

6. Description of the measure:
Local supply of regional and daily needed products in self-service containers as well as in small venues in village centres; increasing the amount of purchased local products (strengthening local value chains), and securing local supply especially in rural areas

7. Description of (potential) impact on quality of life:
Grocery shopping within short distances that do not need a car (reduction of CO2, independence for immobile people), availability of high-quality food (locally produced, often organic), local added value (support of small farms and manufacturers), food security

8. Target groups:
Youth, Children, Elderly, Students, Unemployed, Migrants, Women, Farmers, Tourists, Citizens, Enterprises

9. Funds (gov. level, multiple answers):
EU, National, Regional, Local

10. Website/more information available:
https://www.kastlgreissler.com/

Good practice: 17

1. Name of the measure:
Euregio Family Pass

2. Quality of life topic:
Infrastructure and services

3. Implemented by:
Südtirolmobil

4. Time frame (year, period):
/

5. Location:
South Tyrol

6. Description of the measure:
Euregio Family Passes are personalised, annual smart cards or electronic tickets which enable reduced fares on all means of public transport across South Tyrol. Any parent or legal guardian of at least one underage child is entitled to a Euregio Family Pass. The ticket itself works much like a Südtirol Pass: The more kilometres you travel throughout one year, the cheaper each new journey becomes. Fares are calculated per journey and automatically charged whenever you use your pass. You can either pay by direct debit from your bank account (post-paid ticket version) or top up your pass with credit and pay as you go (pre-paid ticket version). Euregio Family Pass holders are also entitled to a range of discounts and offers in many shops, museums, and so on across South Tyrol, Trentino, and Tyrol.

7. Description of (potential) impact on quality of life:
Promotion of sustainable mobility, especially targeting families, as well as children, youth and tourists.

8. Target groups:
Citizens, Children, Tourists, Youth

9. Funds (gov. level, multiple answers):
National, Regional

10. Website/more information available:
https://www.suedtirolmobil.info/en/tickets/ticket-finder/euregio-family-pass

Good practice: 18

1. Name of the measure:
Digital Alpine Village DAHOAM 4.0

2. Quality of life topic:
3.3.1 Broadband access

3. Implemented by:
Future Region Rupertiwinkel / Technology Campus Grafenau and Hörnerdörfer (Upper Allgäu)

4. Time frame (year, period):
/

5. Location:
Pilot project Rupertiwinkel (one of three Bavarian regions) and pilot region Hörnerdörfer (Upper Allgäu)

6. Description of the measure:
In the framework of the pilot project Rupertiwinkel (one of three Bavarian regions), the following aspects of digital solutions for rural areas were explored:

• Digital care compass for finding customised offers for people in need of care
• Nature adventures platform: suggestions for sustainability, nature experiences, and environmental education.
• Order organic products online using the the Biogenuss platform
• Use the Dahoam 4.0 Rathaus app and Dahoam im Rupertiwinkel at www.dahoamimrupertiwinkel.de to view information, dates, and public documents.
• Inter-municipal ordering platform for the sustainable procurement of products for all five ILE administrations.
• Future living platform provides information on sustainable building, living, and renovation

The pilot region Hörnerdörfer (Upper Allgäu) addressed the following topics:
• Application Dahuim Registration for residence registration for EU seasonal workers
• Touch terminals inform tourists and locals
• 360° cameras and widescreen webcams provide impressive live images
• Concept for virtual tours with VR/AR around the Sturmannshöhle cave in Obermaiselstein
• Website www.hoernershuttle.de organises shared trips for Balderschwang guests to the train station in Fischen and back
• Dahuim portal improves inter-municipal cooperation and citizen information
• Drones help to check the safety of hiking and cycling trails
• Innovative local supply concepts for regional specialities and everyday necessities

Visitor guidance approaches improve car park and traffic situations

7. Description of (potential) impact on quality of life:
Improved digital infrastructure and services, governance, and environment. Digital Alpine Village DAHOAM 4.0 project introduced new digital solutions to three Bavarian communities among other new solutions for municipal administrators, citizens and tourists; digital care compass, nature adventure platform, municipal data and public documents access, website for ridesharing etc.

8. Target groups:
Citizens, Regional and local authorities

9. Funds (gov. level, multiple answers):
/

10. Website/more information available:
https://www.dahoamviernull.de/gemeinden/
https://www.dahoamviernull.de/gemeinden/#accordion-rupertiwinkel
Technology Campus Grafenau

Good practice: 19

1. Name of the measure:
MARO housing cooperative with projects

2. Quality of life topic:
4.3.3 Affordable housing

3. Implemented by:
MARO-Genossenschaft

4. Time frame (year, period):
/

5. Location:
Schongau, Penzberg, Unterwössen, Bad Endorf, Rosenheim

6. Description of the measure:
MARO is a non-profit housing cooperative for self-determined and neighbourly living at every stage of life. While housing cooperatives (Wohnungsgenossenschaften) are usually concentrated in urban areas and bigger cities, MARO focuses on small cities in rural areas. The need for rental apartments in rural areas is growing. For its projects, MARO activates

capital at the regional level for meaningful regional projects. In addition to interest rates, it provides an "emotional" interest rates for people who want to invest in sustainable development of their city or region.

7. Description of (potential) impact on quality of life:
MARO is offering a new approach to creating affordable housing and at the same time address social (elderly living, integrative approaches) and architectural/environmental issues (reuse of vacant buildings, inner-urban development).

8. Target groups:
Local citizens, Elderly

9. Funds (gov. level, multiple answers):
Regional

10. Website/more information available:
https://www.maro-genossenschaft.de/
Uwe Brandl, Franz Dirnberger, Matthias Simon, Manfred Miosga (2019): Wohnen im ländlichen Raum/Wohnen für alle. München.

Good practice: 20

1. Name of the measure:
Sei mein Schatz! ("Be my treasure!")

2. Quality of life topic:
Environment, Governance

3. Implemented by:
City of Munich

4. Time frame (year, period):
12/2019 – 3/2022

5. Location:
City regions: Munich, Salzburg, Vienna, Ljubljana, Trento, Turin and Grenoble

6. Description of the measure:
In order to strengthen green infrastructure in the growing metropolitan regions of the Alpine region, such as Munich, within the Interreg project LOS_ DAMA! pilot projects were implemented in all participating city regions. The motto of the Munich pilot projects was: "Adding value to the landscape!" Among other things, a landscape treasure map was created. Its development met with great interest and was extended to green spaces north of Munich in the "Be my treasure!" project. The deepening of the content and the spatial expansion were made possible by the 'docking funding' of the Federal Transnational Cooperation Programme.

7. Description of (potential) impact on quality of life:
Awareness raising regarding the value of the peri-urban landscape; drew attention to different interests of land use; preparation of binding cooperations as well as citizen participation; impulses for peri-urban landscape development (qualification of Munich'a green belt).

8. Target groups:
Other: local / regional authorities, citizens

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://www.interreg.de/INTERREG2021/DE/Service/Journal/Downloads/dl-journal-4-2020.pdf (in German language only)
https://www.interreg.de/INTERREG2021/DE/Aktuelles/InterregBlog/2022/blog-220510/blog-mertelmeyer-seimeinschatz.html (in German language only)

Good practice: 21

1. Name of the measure:
Smart Land

2. Quality of life topic:
Infrastructure and services

3. Implemented by:
Regionalverband Südlicher Oberrhein

4. Time frame (year, period):
09/2020–10/2021

5. Location:
Municipalities of Friedenweiler and Eisenbach

6. Description of the measure:
The Interreg project SmartVillages for the digital transformation of rural communities in the Alpine region brought many insights with regards to the organization and financing of digital networking and digital networking opportunities (e.g. civic taxi cabs and coworking spaces). With the aim of transferring the results to the neighbouring municipalities of Friedenweiler and Eisenbach, the project partner Regionalverband Südlicher Oberrhein has received additional funding from the German Federal Transnational Cooperation Programme.

7. Description of (potential) impact on quality of life:
Development of ideas on the topic of "digitization and quality of life" together with citizens: discussion of corresponding implementation paths; general recommendations for action in a brochure for German cities and communities in rural areas.

8. Target groups:
Other: local and regional authorities

9. Funds (gov. level, multiple answers):
National

10. Website/more information available:
https://www.interreg.de/INTERREG2021/DE/Service/Journal/Downloads/dl-journal-4-2021.pdf
https://www.interreg.de/INTERREG2021/DE/Aktuelles/InterregBlog/2021/blog-210609/blog-rakelmann-smartland.html
https://www.alpine-space.eu/project/smartvillages/

Good practice: 22

1. Name of the measure:
Station for Transformation – modelling a train station as a replicable hub for public-civic engagement to tackle climate change and biodiversity challenges

2. Quality of life topic:
Environment, Infrastructure and services, Social relations, Governance, Other: Climate Change

3. Implemented by:
Municipality of Rovereto – in collaboration with civil society organisations and universities

4. Time frame (year, period):
2023–2027

5. Location:
Rovereto/Vallagarina/Trentino/Italy

6. Description of the measure:
The alpine town of Rovereto and its functional urban area face the challenge of needing to rapidly adapt to the effects of climate change and effectively mitigating the resulting loss of biodiversity, which is closely linked to territorial cultural heritage and well-being. To address this challenge, the town has transformed the empty main building of the train station and its surrounding area into a public-civic hub for joint actions on climate change, biodiversity loss, and heritage regeneration in line with the EU's New Leipzig Charter.

7. Description of (potential) impact on quality of life:
The initiative brings together multilevel stakeholders to address pressing challenges to quality of life in the valley.

8. Target groups:
Youth, Women, Farmers, NGO's, Enterprises, Other: public administrators

9. Funds (gov. level, multiple answers):
EU, Local

10. Website/more information available:
https://www.urban-initiative.eu/calls-proposals/first-call-proposals-innovative-actions/selected-projects

Good practice: 23

1. Name of the measure:
ZUMGLUECK.JETZT – Initiativen zur Veredelung der Zeit

2. Quality of life topic:
Environment, Social relations. Implemented by:
Verein ZUMGLUECK.JETZT – Initiativen zur Veredelung der Zeit; a private association

4. Time frame (year, period):
Started in 2020; The Moosburg Happiness Project is scheduled to run for several years

5. Location:
Municipality Moosburg (Carinthia/Austria)

6. Description of the measure:
Moosburg presents itself as "Austria's first lucky town/town of happiness". "Happiness always comes unexpectedly, but we can do a lot to avoid missing it." The association "Zum Glück" wants to awaken it with events, projects and the Moosburg Happiness Trail. Visitors are told stories, ideas are presented, and experiences are offered. Anyone who sets out on the happiness trail in Moosburg or wanders through the gallery of thoughts will return home with new perspectives related to happiness! Moosburg is a very active municipality: In 2014, Moosburg won the European Village Renewal Award for holistic and sustainable village development. In the international jury's opinion, Moosburg is one of the communities with the best quality of life in Europe. Recent and upcoming projects in Moosburg include: MobilityMasterplanMoosburg; Broadband expansion; Revitalization of the town centre; Expansion of educational campus.

7. Description of (potential) impact on quality of life:
Together with business people, community representatives and committed Moosburg citizens, zumglueck.jetzt is dedicated to the topic of happiness and would like to motivate people of all ages to take the risk of becoming "the architect[s] of their own happiness". Enhancing happiness can be seen as an important element in enhancing QoL. Specific measures are: Glüxakademie: The playground of ideas for perspectives on a successful life; The Happiness Trail: This trail is an artistically designed adventure path: visitors embark on a journey of discovery on the "Path of Abundance" and the "Path of Silence". There are around 50 stations to explore, which make the most diverse facets of happiness visible, tangible, and palpable.

8. Target groups:
Youth, Children, Elderly, Students, Unemployed, Migrants, Women, Farmers, Tourists, NGOs, Enterprises, Citizens

9. Funds (gov. level, multiple answers):
EU, National, Regional, Local

10. Website/more information available:
https://zumglueck.jetzt/

Good practice: 24

1. Name of the measure:
AREA CONSCIOUS TOWN / Inner-urban development and land-saving in the municipality of Schleching and/or Kirchanschöring

2. Quality of life topic:
3.2.1 Land take intensity

3. Implemented by:
The municipality of Schleching

4. Time frame (year, period):
First measures undertaken in the 1990s

5. Location:
Schleching

6. Description of the measure:
Based on the tradition of sustainable regional development (Ökomodell Achental), the municipality of Schleching is addressing inner-urban development and the preservation of greenzones through Village Renewal projects. In this context, it has assessed its inner-urban development potentials in a database and has passed the decision to avoid future greenzone development and focus on inner-urban development instead. The example of Kirchanschöring also includes innovative participation approaches of citizen councils (Bürgerräte).

7. Description of (potential) impact on quality of life:
With the help of the area management database of the Bavarian State Office for the Environment, the municipality of Schleching recorded land vacancies as well as areas that can be redeveloped. To ensure that the townscape is not disturbed, and that the rural architectural style is maintained, a construction manual was created. This serves as a guide and contains examples of successful renovations. This is intended to safeguard the townscape and the attractive effects of the rural climatic health resort on tourism. In addition, the village centre was made friendlier; a road was laid and space was created for events and celebrations. Social infrastructure in the village centre is now bringing life to the village: Schleching's kindergarten children are now allowed to spend their hours in a listed farmhouse and the fire department, mountain rescue service and the shooting club have been quartered in an empty building. There has been a village shop in Schleching since 2014; it is run by citizens. The community acquired the building for this purpose. There is a shared apartment for seniors and people with disabilities above the village shop. From 2014–2016, Schleching was a partner community in the project "Sustainable Community 2030 – Shaping the Future" of the Munich University of Applied Sciences and the SIREG Institute, which is funded by the Bavarian State Ministry for the Environment.

8. Target groups:
Citizens, Enterprises, Farmers, Children, Tourists, Elderly

9. Funds (gov. level, multiple answers):
Local, National

10. Website/more information available:
https://www.stmuv.bayern.de/themen/boden/flaechensparen/ausgezeichnete_kommunen/schleching.htm
https://aktion-flaeche.de/schleching-spielerisch-zu-einem-neuen-ortsbild
https://www.kirchanschoering.de/leben-wohnen/baupotential-in-kirchanschoering
https://www.kirchanschoering-voller-leben.de/web/bauenundwohnen-kirchanschoering/buergerbeteiligung