



SUSTAINABLE TOURISM IN THE ALPS

Report on the State of the Alps

ALPINE CONVENTION
Alpine Signals – Special Edition 4

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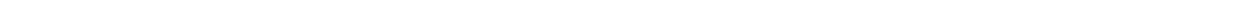


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**SUSTAINABLE TOURISM
IN THE ALPS**
REPORT ON THE STATE OF THE ALPS

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ALPINE SIGNALS – SPECIAL EDITION 4



The present report has been approved by the Alpine Conference through its 51st Permanent Committee on November 20th 2012. The preparation of this report has been coordinated by the Permanent Secretariat of the Alpine Convention in coordination with the French Presidency of an ad-hoc Working Group.

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Austrian „Länder“ with regions being part of the area of the Alpine Convention

CAA, Club Arc Alpin

EEA, European Environment Agency

European Commission, Directorate-General Enterprise and Industry, Tourism Development Unit

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ADEME, Agence de l'Environnement et de la Maîtrise de l'Energie

(French Environmental and Energy Management Agency)

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(Federal Office for the Environment)
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(Foundation for Sustainable Development in Mountain Regions)
Staatssekretariat für Wirtschaft
(State Secretariat for Economic Affairs)

UAB, Universitat Autònoma de Barcelona
(Autonomous University of Barcelona)

ABBREVIATIONS

AC	Alpine Convention
ADSL	Asymmetric Digital Subscriber Line (internet line, data communication technology)
CAA	Club Arc Alpin
CIPRA	Commission Internationale pour la Protection des Alpes (International Commission for the Protection of the Alps)
DG	Directorate General (of the European Commission)
EEA	European Environmental Agency
ERA	Eco Region Alpe Adria
ESDS	European Sustainable Development Strategy
ETC	European Territorial Cooperation
GCOS	Global Climate Observation System
GTI-DTD	International Task force for Sustainable Tourism Development, UN Marrakech process on Sustainable consumption and production
INTERREG	Interregional Cooperation Programme
IPCC	Intergovernmental Panel on Climate Change
ISCAR	International Scientific Committee on Research in the Alps
LAU	Local Administrative Units (Nomenclature of territorial units for statistics)
LEADER	Liaison Entre le Actions de Développement de l'Economie Rurale (Link between the rural economy and development actions)
LFAs	Less favoured areas
MAP	Multiannual Work Programme of the Alpine Conference
NUTS	Nomenclature des unités territoriales statistiques (Nomenclature of Units for Territorial Statistics)
NUTS 3	Districts (D), Groups of districts (A), Provinces (I), Departements (F), Cantons (CH)
OECD	Organisation for Economic Co-operation and Development
PLANALP	Platform for Natural Hazards of the Alpine Convention
PPP	Public Private Partnership
R&D	Research and development
RSA 1	First Report on the state of the Alps
RSA 2	Second Report on the state of the Alps
RSA 3	Third Report on the state of the Alps
RSA 4	Fourth Report on the state of the Alps
SGI	Services of General Interest
SOIA	System for Observation and Information on the Alps
SRES	Special report on emissions scenarios
UN-ECE	United Nations Economic Commission for Europe
UNWTO	United Nations World Tourism Organization
WTTC	World Travel and Tourism Council

FOREWORD OF THE PRESIDENT OF THE EXPERT GROUP

The fourth Report on the state of the Alps focused on the sustainable development of tourism in the Alps was drafted by a group of experts from different Alpine countries, in close collaboration with the Swiss Presidency of the Alpine Convention, the Permanent Committee and the Permanent Secretariat.

As coordinator of the group, I would like to thank all the experts for their work and for the quality of their contributions. During the course of our many exchanges and group meetings, the report was drafted with a truly constructive attitude, and the general atmosphere was marked by mutual trust and conviviality.

It should also be noted that the group strove to deliver a balanced position in the report, by considering both the notion of "sustainable" tourism as well as the economic and social reality of the contribution this industry makes to the Alpine regions and their populations. Equally, the group tried to strike a structural and editorial balance between the three pillars of sustainable development.

Lastly, I speak for all the experts in expressing the hope that the report will result in practical measures to optimise the implementation of the Tourism Protocol of the Alpine Convention which was signed 15 years ago. In this respect, we note positively that at the end of November 2012, the 51st Permanent Committee meeting in Milan approved a preliminary set of decisions. This testifies, if need be, to what extent States recognise the importance of tourism for their development, and wish to preserve its principles.

*Georges Ribière, President of the ad-hoc expert group,
Departmental Council for the Environment and Sustainable Development
Ministry of Ecology, Sustainable Development, and Energy*

FOREWORD OF THE PERMANENT SECRETARIAT

This Fourth Report on the State of the Alps focuses on sustainable tourism. The report builds on the need, recognised in the Protocol on Tourism of the Alpine Convention approved on 16th October 1998, for greater harmony between tourism and the environment, and, in accordance with one of the guiding principles of the Convention, seeks to address the challenges of sustainable tourism regardless of political and administrative borders in the Alps.

Environmentally-friendly tourism is seen as one of the essentials for fostering economic development in the Alps and thereby underpinning standards of living in rural communities. Protecting natural surroundings is important not only for maintaining a diverse flora and fauna but also for safeguarding the Alpine landscape that attracts tourists, summer and winter. Through the Tourism Protocol, the Alpine Convention aids decision-makers in the complex task of striking a balance between tourism development and the protection and promotion of an area's natural and cultural heritage.

Tourism is an economic activity that cuts across several sectors. Policy-making on sustainable tourism requires the combined action of several branches of administration at national, regional and local level. The Alpine Convention, as a framework for multi-level action, helps ensure the consistency of the various initiatives undertaken. These consist typically of guidelines, development programmes and sectoral plans that require assessment prior to their approval, in particular in respect of any socio-economic consequences for the local population as well as for public finances. Other consequences to be considered are in respect of soil, water and air quality and impacts on natural ecosystems and the countryside.

The current main challenges for all Alpine countries are concerned with land use, transformation of landscape, adaptation to climate change and the creation of job opportunities so that remote areas continue to be inhabited and managed. Job creation in turn requires improvements in areas such as the hotels and catering sector, with better working conditions and the provision of educational opportunities to motivate staff and enhance their job prospects. A further challenge is to ensure that public services meet the expectations both of the resident population and visitors.

In order to support the relevant decision-making bodies in their efforts to meet these objectives and thus promote sustainable tourism, this fourth Report on the State of the Alps provides firstly an overview on definitions, classifications, sustainable tourism policies and legal frameworks. Next, the factual situation of tourism throughout the Alps is set out, and finally the challenges the industry brings are discussed, including presentation of options and tools on possible ways forward. The result is a report rich in data and analysis, as has become the tradition with these Reports on the State of the Alps from the Alpine Convention.

We congratulate all the representatives of the Alpine Convention Contracting parties and thank the experts and contributors for their great commitment to drafting this Report in a very limited span of time. It is our hope that the Report will make an informed and useful contribution to the debate on sustainable tourism at local, national and international level.

Marco Onida, Secretary General of the Alpine Convention

*Regula Imhof, Vice-Secretary General of the Alpine Convention,
Responsible for the System for Observation and Information on the Alps*

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A. INTRODUCTION

A.1 OBJECTIVES OF THE REPORT ON THE STATE OF THE ALPS

This Report on the state of the Alps is the fourth (RSA 4) after those on transport, water and rural development. It focuses on the sustainable development of tourism, one of the topics directly addressed by the Alpine Convention implementation Protocols.

The report is therefore fully aligned with the Framework Convention and in particular with articles 25 and 26 of the Protocol on Tourism (monitoring of obligations of the Contracting Parties):

- evaluate the impact of the implementation Protocol in the field of tourism and the impact of other related Protocols (Articles 25-1, 2 and 3, Protocol on Tourism);
- explore the open challenges for Alpine tourism and the room for a wider implementation of the Protocol, also considering the possibility to adopt appropriate amendments to the Protocol, where necessary (Article 26, Protocol on Tourism).

Hence, this report completes the work of the Alpine Convention Compliance Committee and is based on the current state of play of sustainable development in the field of tourism in the Alpine region.

Finally the report analyses the state of sustainability of tourism in the Alps as far as it is possible. The limit of this analysis is given by the lack of relevant data.

Its structure includes:

- a general introduction to the sustainability of tourism;
- an overview of the situation of tourism in the Alpine regions of the Signatory Countries;
- an analysis of the responses already obtained by the Alpine Convention and its Protocol on Tourism in the Alps;
- a presentation of possibilities and opportunities for improving the development of sustainable tourism in the Alps. This section is specifically addressed to different groups of actors (States, regions, communities, enterprises, tourists) and tourist destinations (resorts, regions), and aims at triggering a better implementation of the Protocol of the Alpine Convention in the field of Tourism.

A.2 DEFINITIONS: THE SUSTAINABILITY OF TOURISM

The World Tourism Organisation (UNWTO) defines visitors, tourism and its economic effects as follows:

"A visitor is a traveller taking a trip to a main destination

outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited. A visitor (domestic, inbound or outbound) is classified as a *tourist* (or overnight visitor), if his/her trip includes an overnight stay, or as a same-day visitor (or *excursionist*) otherwise."

Considering that most statistics and analyses are based on overnight visitors, and data on same-day visitors is rarely collected, this report focuses on overnight visitors, which will be referred to in the report as "tourists". Nevertheless, also the aspect of same-day visitors will be mentioned in some parts, since both aspects are interlinked.

This report focuses on sustainable tourism.

Unlike the more commonly used term "sustainable development", there is no single definition of "sustainable tourism" that can be used as a reference point for all concerned stakeholders. The considerable growth in this sector which is directly linked to economic development and globalisation, has led a number of organisations to come forward with a variety of concepts defining "sustainable tourism".

At an international level, the United Nations (UN), the World Tourism Organisation (UNWTO), the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organisation for Economic Co-operation and Development (OECD) as well as NGOs, have produced a variety of guides and action programmes on the subject of "sustainable tourism", particularly focusing on indicators. At European Union level, the work of the European Parliament and the European Commission has tackled the issue of "sustainable European tourism". At national level most countries have drafted an "Agenda 21" or national sustainable development strategies containing a chapter on tourism.

In this respect, the UN World Tourism Organisation (UNWTO) defines sustainable tourism as "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities. sdt.unwto.org/en/content/about-us-5

Sustainable tourism should:

- make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential processes and helping to conserve natural heritage and biodiversity;

- respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values and contribute to inter-cultural understanding and tolerance;
- ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are equally distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

The European Commission defines sustainable tourism as “tourism that is economically and socially viable without detracting from the environment and local culture”, which means a balanced approach to the three pillars of sustainability.

In essence, the term “sustainable tourism” is more the application of sustainable development objectives to the tourism sector, similarly to its application in other sectors (transport, energy, agriculture etc.), rather than a field in itself and consequently the term that will be used preferentially in this report is “sustainable development of tourism”.

Sustainable development of tourism

Tourism is an economic activity that fosters job creation and local development: it is based on promoting and valorising natural, historical, cultural and social resources. For many areas, it is one of the platforms, sometimes the only available one, allowing people to “live and work in one’s own region”.

Consequently, the sustainable development of this sector is a major challenge in terms of achieving durability without the risk of modifying underlying resources. Mobility and its impact on climate change, the conservation of natural resources (water, land, fragile environments etc.), minimising pollution and waste, achieving well balanced spatiotemporal movements and respect for social and cultural traditions are only few of the challenges that need to be met, regardless of the location (developed countries or developing countries) or the type of tourism (mass or niche) and taking into consideration indicators such as carrying capacity and corresponding thresholds of irreversibility.

The challenges affect all stakeholders (tour operators, carriers, tourism developers and hospitality operators, restaurant owners, shopkeepers, tour managers, planners, providers and managers of tourism products, regional players and elected representatives, and obviously tourists too) and territories as well as their practices: hospitality, lodging, transport.

Other sectors are also affected, particularly spatial planning, transport, energy, agriculture, environment, the employment market and consumer life styles.

This explains why in the UN Marrakech process on “Sustainable consumption and production”, one of the 7

task forces (International Task force for Sustainable Tourism Development, GTI-DTD) deals with the theme of sustainable tourism projects. The objective for each of the task forces is to: share knowledge and good practices; develop transferable projects and tools; raise awareness among tourist operators and tourists.

Within this framework, from 2006 to 2010, the International Task force for Sustainable Tourism Development (GTI-DTD) produced close to 40 projects and initiatives, and adopted policy recommendations for areas such as marketing, capacity building, consumption of goods and services, follow-up and evaluation. In January 2011 the GTI-DTD developed into a UN-type partnership. Seven work topics have been selected: climate change; protection of the environment and biodiversity; fighting poverty; policy action frameworks; cultural and natural heritage; the private sector; finance and investments.

At European level, in 2004, the European Commission established a dedicated “Tourism Sustainability group” (TSG), which was, amongst others, entrusted with drafting a report on “Action for more sustainable European Tourism”. The report sets out specific responsibilities for each set of actors: sustainable destinations, sustainable enterprises, responsible tourists, and was the basis for the Commission Communication of 2007 entitled “Agenda for a competitive and sustainable European Tourism”.

The development of sustainable tourism therefore encompasses the whole range of tourist activities and stakeholders, from the offer of tourism-products by tourism “service providers” to tourism demand by “consumers”. The interesting thing about this approach is that it allocates responsibility to all the actors and activities of a given territory.

Even though States and regions make serious efforts to improve the sustainability of Alpine tourism offers, consumer behaviour is often an additional key element to reduce the tourism related negative impacts on the Alps. This is not to be understood as a specific challenge for Alpine tourism, since the adoption of more sustainable life styles and consumer patterns is an issue for the whole European society. Consumers have a significant responsibility, through their demand they can influence the success and ongoing adaptation of what is supplied to them.

Traditionally, the Alps were, and still are, a platform for innovation in the field of sustainable tourism products, which combine the responsible use of resources and a high level of leisure services. In this way, increasingly responsible consumers can see that tourism and sustainability do not exclude each other.

Different forms of sustainable tourism

Based on the above information, it is important to underline that sustainable development of tourism in general is not to be confused with related forms of tourism.

Some approaches are mentioned below. The indicators identified for the assessment of sustainability of tourism will be discussed later in the report.

- **“Agro-tourism”** Agricultural tourism (Agritourism, more often known as farm tourism, is a segment of rural tourism) is a type of tourism closely connected to agriculture, farms and countryside. It brings tourists closer to nature and involves them in the activities connected with nature conservation and landscape management. Tourists participate in the activities and lifestyles of local people and can get acquainted with animals, plants cultivation and food production. Tourists bring direct income to farmers and allow them to diversify their economic activities. Another positive effect is that farm tourism builds on existing tourism infrastructures and helps to distribute tourism more evenly in rural areas.
- **“Eco-tourism”** or **“green tourism”** is tourism in a natural environment, and includes environmental and resource conservation elements, education elements and local socio-economic benefits (used mainly in the context of tourism in the developing countries). The term “rural tourism” is used for tourism in a rural setting, agro-tourism for instance, and it is occasionally assimilated with green tourism, without however necessarily having the same sustainability objectives.
- **“Ethical tourism”** or **“responsible tourism”** is more a moral objective that can be applied to all the forms of tourism listed above, rather than being a specific form of tourism. Its purpose is to apply the objectives of the “Global code of ethics for tourism”, adopted by the UNWTO in 1999: tolerance, human rights and freedoms, respect for diversity in ethnic backgrounds, customs and religion, education and training. It applies the Cape Town Declaration on Responsible Tourism of 2002 too.
- **“Fair tourism”**, like the label “fair trade”, provides a redistribution of part of the tourism revenues to the local communities – it is mainly “green tourism”, but it can also be rural or urban. It attempts to reconcile tourism interests with respect for the local population (their cultures and life styles). This form of tourism is frequently adopted in less advanced countries, generally in southern regions.
- **“Geotourism”**, like eco-tourism, promotes environmental and resource conservation based on geological specificities, but it also comprises a whole concept of space, like history, culture, landscape, cuisine, arts, local flora and fauna, all characteristics that contribute to a “sense of place”.
- **“Social tourism”** is a form of tourism targeting customers with specific needs: families, young people,

pensioners, people with handicaps, and it normally takes place in specific centres for groups (holiday centres, outdoor camps, holiday villages etc.), not to be confused with outdoor or camping hospitality facilities. Its objectives are the right to holidays and the provision of accessible tourism for all.

- **“Solidarity tourism”** is directly related to local socio-economic projects. Tourists and tour operators can participate, either directly or indirectly, to development initiatives or projects: reclamation workshops, development of facilities or equipment, well digging, social or cultural project, and so on. Youth work-camps usually come under this heading.

Corporate Social Responsibility (CSR) in tourism relates to a set of various tools aiming at the implementation of sustainability in tourism businesses.

The good practices implemented in the Alps with respect to these forms of tourism are clearly examples, in their own right, of the sustainable development of tourism.

B. SUSTAINABLE TOURISM POLICIES

B.1 INTERNATIONAL POLICIES FOR SUSTAINABLE TOURISM DEVELOPMENT

Policies favouring sustainable tourism development in the European Union and in the Alpine Convention signatory States are part of a broader framework.

It is not possible here to list all of the bodies and initiatives linked to tourism, sustainable or not, worldwide. Their number is directly proportional to the economic importance of the sector: nearly one billion cross border trips (constantly increasing), 100 million direct jobs (and as many indirect ones), 5% of the world GDP on average, and 30% of service exports (UNWTO).

In the following part, we will only highlight some important ones:

1. The United Nations World Tourism Organization (UNWTO) headquartered in Madrid, is a specialized United Nations institution and the leading international organization in its field of competence. It acts as an international forum for tourism policy questions and an arena for the exchange of information and know-how. It brings together 162 countries and territories and over 400 affiliated members representing the private sector, academic institutions, tourism associations and local tourism authorities.

The UNWTO plays a central, decisive role in promoting the development of a responsible, sustainable tourism accessible to all, paying special attention to the interests of emerging countries, notably through its "Global Code of Ethics".

In April 1995 in Lanzarote (Canary islands), it took the initiative to organise the first world conference on sustainable tourism, which launched an appeal to the international communities through a Charter for sustainable tourism.

It has published numerous reference guides: "A Practical Guide to the Development and Use of Indicators of Sustainable Tourism" in 1997, "Policies and Tools for Sustainable Tourism - A Guide for Policymakers" in 2005, "Tourism and Sustainability: an Overview" in 2005, "Climate change and Tourism" in 2008, "Tourism and biodiversity" in 2010.

2. The World Travel and Tourism Council (WTTTC) is a worldwide travel industry business association. It is the forum for business leaders in the Travel & Tourism industry. The WTTTC Tourism for Tomorrow Awards are one of the world's highest awards in the Travel & Tourism

industry. They are aimed at recognising good practice in sustainable tourism within the industry worldwide. The WTTTC is strongly engaged in climate change issues.

3. The Tour Operators Initiative (TOI) for sustainable tourism development has been developed by tour operators for tour operators with the support of the World Tourism Organization (UNWTO) – which hosts the TOI secretariat – the United Nations Environment Programme (UNEP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) who are also full members of the Initiative. It is a forum grouping together the main private international tourism operators.

4. The United Nations Environment Programme (UNEP), focused since its creation on taking the environment into account in human activities, recently took two important initiatives. The first was to publish a practical guide to manage the environmental and social impacts of mountain excursions, entitled "Tourism and the mountains", in 2007. This guide defines good practices for mountain tourism: energy, transport, biodiversity, climate, safety, local communities etc.

The second is the "Tourism" chapter of its report on the transition towards a "Green Economy" published in 2011 (UNEP, 2011), which advocates a decoupling of growth and the consumption of natural resources through solid legislative frameworks, the greening of economic activities, the reduction of public expenditures harmful to our natural heritage, taxation and economic instruments, training and research, and international governance. A green economy means reduced carbon emissions and pollution, enhanced energy and resource efficiency, and maintained biodiversity and ecosystem services. In this report, the chapter on tourism drafted in collaboration with the UNWTO emphasizes the greening of the sector, through investments leading to energy and water efficiency, climate-change mitigation, waste reduction, biodiversity and cultural heritage conservation, and the strengthening of linkages with local communities. According to this report, concerted "greener" policies can steer the growth of the sector toward a more sustainable path, generating economic benefits, while strengthening its social and environmental context (UNEP, 2011).

This report is one of UNEP's key contributions to the Rio+20 process, but also aims at continuing beyond 2012. The Green economy was a major theme at the Rio+20 summit in Rio de Janeiro, Brazil, which took place

from the 20th to the 22nd of June 2012. On this occasion, governments and other stakeholders including business, UN agencies and non-governmental organisations, attempted to produce guidance on the way forward. The discussions aimed at shaping the future ethic of the management of natural and human capital of the planet can have strong impacts on the human activities. Rio+20 strived to guide tourism towards more sustainability and ethics.

At the XIIth Alpine Conference (7th September 2012), the Ministers of the Alpine Countries decided to task the Permanent Secretariat of the Alpine Convention with the assessment of the outcome of the Rio+20 Summit ("The future we want" document) with the objective of making the Alps and exeplyary territory for the implementation of the principles contained therein.

5. The OECD Tourism Committee is an international political forum that aims at enhancing the capacity of OECD member states governments to adjust their policies and actions to support sustainable growth, green innovations and competitiveness in tourism, and to better integrate tourism policy issues with other policy areas. Twice a year, it brings together policy makers in the field of tourism to discuss major industry developments and challenges.

B.2 EUROPEAN UNION POLICIES FOR SUSTAINABLE TOURISM DEVELOPMENT AND OTHER INITIATIVES AT EU LEVEL

Before describing the tourism institutions and sustainable development policies of each of the Alpine Convention signatory States in chapter B.3, it is interesting to examine those of the European Union, which also signed the Alpine Convention and its Protocols. The European Union ratified the Tourism Protocol in 2006.

First of all, when talking of tourism, we must remember that it is above all a national or regional competence of the Member States. In the Communication on tourism (2010), the Commission proposed for the first time a consolidated political framework for action in the European tourism (COM(2010) 352 final of 30.06.2010), and therefore, a coordinated European tourism policy.

Since the Lisbon Treaty entered into force on December 1st, 2009, the EU has acquired the competence to support, coordinate and complement action of the Member States in tourism with a view to encourage the creation of an environment that fosters business development and cooperation between the Member States.

Tourism is an economic activity capable of generating growth and employment in the EU. The European tourism industry covers about 1.8 million businesses, primarily SMEs; it employs approximately 5.2% of the total workforce (approximately 9.7 million jobs), playing a key-role in tackling youth unemployment and often providing first professional experience to young people. It directly generates over 5% of EU GDP and it is a crisis-resistant sector, representing for some Member States a sector with major contribution to economic recovery. Tourism represents the third largest socioeconomic activity in the EU after the trade and distribution and construction sectors.

Representatives from the EU Member States regularly meet in the Tourism Advisory Committee (TAC) to discuss about different issues with regard to the tourism sector in the EU, including present and future challenges, as well as to exchange good practices amongst themselves and advice the European Commission on EU level projects.

Secondly, legislation in other EU policy fields (e.g. internal market, consumer protection, service provision, environment, energy, transport etc.) can have a major impact on tourism due to its complex structure and cross-disciplinary nature.

Thirdly, the environment is a consolidated European Union policy, with a legal basis in the EU Treaty which dates back 1987. This policy started with the definition and implementation of specific environmental regulations on nature, air, water, waste and chemical substances, and was then broadened to include cross-cutting measures on environmental assessment, citizens' access to information and justice, participation in decision-making processes etc.

Since the notion of sustainable development started to become more familiar, incredible steps forward have been made, and today this policy is marked above all by its goal to integrate the environment into all other EU policies, to ensure that those that may significantly impact the environment take environmental constraints into account in their definition and implementation.

This refers to tourism, which has always had a certain impact on the environment, due to transport, infrastructures, building (especially in some coastal and mountain areas), natural resource consumption etc.

In November 2003, the Commission Communication entitled "Basic orientations for the sustainability of European tourism" (COM(2003) 716 final of 21.11.2003) represented a first step toward the integration of sustainability in the tourism sector. In February 2007, a specific Working Group set up by the Commission published a report entitled "Action for more sustainable European tourism" ec.europa.eu/enterprise/

sectors/tourism/files/docs/tsg/tsg_final_report_en.pdf, used as a basis for the adoption, in October 2007, of the Communication "Agenda for a competitive and sustainable European tourism" (COM(2007) 621 final of 19.10.2007).

The Communication of June 2010 entitled "Europe, the world's No. 1 tourist destination – a new political framework for tourism in Europe" (COM(2010)352 final of 30.06.2010), focuses on the new factors impacting on the growth of tourism, such as demographics, climate change, energy and natural resources.

The objective stated is to improve the sector's competitiveness, while also improving the sustainability and quality of the tourism offer, amongst others, by reinforcing the relationship between tourism and cultural and natural heritage, the creation of a system of indicators for sustainable destination management and a European Tourism Label for Quality Schemes, as an umbrella recognition system of quality schemes for services in the tourism sector. The Communication also highlights the need to involve all stakeholders towards ensuring a competitive and sustainable future to the tourism industry, as well as to better harness EU policies and financial instruments.

In parallel, the Commission carries out specific actions fostering sustainable tourism development models, for example the EDEN contest rewarding "European destinations of excellence" ec.europa.eu/enterprise/sectors/tourism/eden-destination/index_en.htm, based on different themes each time. However, mountains do not feature amongst the themes chosen for EDEN so far.

A call for projects was also launched in 2011 to promote sustainable transnational tourism products. Five transnational projects linked to cross-border, trans-national tourism routes/trails or itineraries and contributing to a more sustainable tourism industry were awarded. One about the Italian "Via Francigena" includes the Alps.

A certain number of actions in favor of increasing tourist flows within and into the EU have been launched:

Calypso ec.europa.eu/enterprise/sectors/tourism/calypso/index_en.htm the pilot initiative "50,000 tourists" ec.europa.eu/enterprise/sectors/tourism/50k/index_en.htm etc.

Further to the European Commission's policy for tourism and related actions in the field, other EU level initiatives and partnerships or networks can be mentioned such as, amongst others, the "Network of European Regions for a Sustainable and Competitive Tourism", NECSTouR www.necstour.eu/necstour/home.page, created in 2007 by three European regions: Catalonia, Provence-Alpes-Côte d'Azur and Tuscany.

B.3 LEGAL FRAMEWORK, INSTITUTIONS AND POLICIES OF THE EIGHT ALPINE COUNTRIES

All national contributions focus on mountain/mountain tourism related information and on different administrative levels (national, regions, district/province, community etc.) according to the competence and organisation of tourism.¹

However, as it will become evident in the following chapters, it is difficult to mark the difference between what is relevant for the sustainable development of tourism and what is relevant simply for the development of tourism.

B.3.1 LAWS AND POLICY MEASURES ON TOURISM IN THE ALPINE COUNTRIES

A number of Alpine countries adopted laws and policy measures with direct impact on tourism, which also apply to the area of the Alps.

Given their typically cross-cutting nature, national, federal and European laws as well as international laws and conventions impinge on tourism, such as commercial legislation, transport, border crossing procedures, labour legislation, internal security, fiscal system, consumer and health protection, trade, migration, statistics, research in tourism, education and training.

Additionally, the subsidiary levels of the States (Länder, Cantons, Regions, Departments, Provinces etc.) issue regulations affecting tourism, e.g. environment-related laws and regulations, rules on regional planning and construction ordinances.

Different other policymaking fields have a crucial influence on tourism, in particular the measures affecting small and medium sized enterprises.

B.3.2 ORGANIZATION OF TOURISM IN THE ALPINE COUNTRIES

In most Alpine Countries, the organization of tourism policy is divided according to the subsidiarity principle with different duties and rights being allocated to different levels, national, regional or local. In all Countries the tourism policy lies within the purview of the Ministry of Economy.

1. Because of the specificity of the Principality of Monaco no specific information on this Country has been introduced in this report.

National contributions

Austria

In Austria, at the national level, tourism policy lies within the purview of the Federal Minister of Economy, Family and Youth (BMWfJ). A Department for Tourism and Historic Objects was created, within the BMWfJ, in order to elaborate strategic guidelines for the Austrian tourism policy; secure the flow of information; operate as a platform for all persons working in tourism and for national and international organizations; deploy financial means and represent federal interests within the Austrian National Tourist Office.

In 2006, the Austrian Parliament established the parliamentary committee for tourism.

In 2010, the BMWfJ launched in close cooperation with the nine "Länder" and all relevant tourism stakeholders the national Tourism Strategy (www.bmwfj.gv.at/TOURISMUS/Seiten/Tourismusstrategie.aspx). Therefore a steering committee consisting of representatives from the "Länder" and the Ministry was established. Each year the Federal Minister together with high representatives of the "Länder" sign an action plan with concrete topics and measures for the following year. Furthermore, an Advisory Council (independent tourism experts) was set up, with the task to report at the annual Austrian high-level tourism conference, on recent trends and current challenges and recommend further procedures and measures.

The Austrian National Tourist Office (ANTO) - Österreich Werbung (ÖW) is the country's national tourism marketing organization. It receives basic funding from the Ministry (75%) and the Austrian Federal Economic Chamber (25%).

At the beginning 2012 the new "Allianz Tourismus Marketing" was established, in order to intensify the cooperation in the Austrian tourism. It consists of the ANTO and the nine "Länder" Tourism Organizations and meets at least 4 times a year. In addition, new boards were established such as the ANTO-Tourism day (once a year) and project related platforms for selected source markets and themes (e.g. health, culture, hiking, bike) in order to coordinate the tourism marketing and to avoid duplication. In February 2012, the ANTO published a discussion paper on "Sustainability in Tourism" showing how the Austrian tourism industry could treat this issue. It also includes requirements and visions for sustainable tourism products and services, and it shows examples of

good practice.

(www.austriatourism.com/media/8998/Nachhaltigkeit_Positionspapier.pdf).

Social partners and other specific tourism organizations are complementary actors in Austrian tourism:

- the Federal Economic Chamber WKÖ is representing among others by compulsory membership the interests of all leisure and tourism entrepreneurs;
- the Austrian Federal Chamber of Labour AK is representing among others the interests of the tourism labour force;
- the Austria Wirtschaftsservice (aws) is also a specialized bank owned by the Federal Republic of Austria and entrusted with providing business related economic support to SMEs;
- Statistics Austria, a former Federal Agency, is in charge of collecting and disseminating data on tourism statistics.

There are two major tourism associations at national level which represent the interests of their members (voluntary membership) - the Association of Austrian Hoteliers (ÖHV) and the Association of Austrian travel agencies and tour operators (ÖRV).

Due to the Austrian constitution, the "Länder" governments are responsible for tourism and issue their own tourism laws regulating the organization of tourism also at regional and local level. At local level each Mayor is also co-responsible for the tourism development in his/her community/destination.

Besides dealing with tourism issues, each of the "Länder" has its own organization in charge of promoting tourism in and outside Austria. The "Länder" are also service organizations for local tourism organizations and enterprises. At regional and local level there are more tourist organizations working on image building, organizing events and other activities.

France

In 2007, French tourism at national level came under the responsibility of the Ministry for Economic Affairs, Industry and Employment after years of being under the responsibility of the Ministry of Equipment and Transport. Within this Ministry, the Sub-Directorate for Tourism (Sous-Direction du Tourisme or SDT) is part of the Directorate-General for Competitiveness, Industry and Services (DGCIS), and is mainly in charge of enforcing regulations and maintaining relations with relevant institutions (WTO, European institutions, other ministries,

local authorities etc.) and professional actors, and for leading special work groups.

Atout France, an Economic Interest Grouping (EIG), is the primary public instrument for the development of French tourism. Its activity area of competence consists of observation and monitoring, support, expertise, development and training, the promoting of France's image abroad as a tourist destination (its network consists of 35 offices abroad and 250 experts, and the CRTs at a regional level) and the classification of accommodation. The EIG is a partnership among the State, local authorities and enterprises. Every Autumn France Atout organises the *Rencontres nationales du tourisme* (national tourism meetings) an opportunity for all tourism actors to meet and receive guidelines for the following year from the Minister responsible for tourism.

The National Council of Tourism, chaired by the Minister, is the collective consultation forum for the State and tourism operators.

An Interministerial Committee on Tourism may be convened if required, and twice a year Communications relating to the Winter and Summer seasons are presented to the Council of Ministers.

The State authorities

Ministry for the Economy, Finance and Industry and other Ministries

State supervised bodies

Atout France (see above); National agency for vacation vouchers (ANCV) for social tourism and vacation assistance

Main national federations based on local and regional entities:

National federation of regional tourism Committees (FNCRT); National federation of departmental tourism Committees (FNCDT); National federation of tourism offices and associations for the promotion of tourism (FNOTSI); National association of mayors of classified resorts and tourist communes; National association of mayors of health resorts; Federation of green resorts; National council of Floral Towns and Villages of France; National association of mayors of mountain resorts (ANMSM); Federation of regional natural parks

Main professional federations

National Union of Travel Agents (SNAV, integrating e-commerce); Professional Association of Tourism Solidarity (APS), a legal and financial guarantee organisation for travel agencies; Tour operator study group (CETO); French

Union of Professions and Industries in the Hotel Business (UMIH) representing a majority of cafés, hotels and restaurants; National Open-Air Tourist Industry Federation (FNHP), for campsites; French Hiking Federation (FFRP); National Union of Tourism Associations (UNAT), a pool of social tourism associations; French association of ski areas (formerly SNTF), for ropeway operators.

Through the action of a variety of bodies and with the collaboration of professionals and their representatives, the Regions, Departments and communes also contribute to implementing tourism development actions both nationally and at territorial level. Overall, their budget exceeds the State budget.

Germany

In Germany, tourism policy is an integral component of economic policy at both federal and "Land" level. All the ministries of economics have specific tourism divisions. Within the federal government, the Federal Ministry of economics and technology has the overall competence and coordination for the national tourism policy. Because of the cross-sectional character of tourism policy, many detail questions also touch the competences of other ministries, e.g. finance, education and research, labour and social affairs, transport, environment, culture and foreign affairs. Relevant examples include the entry rules for foreign visitors and action to ensure the security of air traffic (Federal Ministry of the Interior), transport routes and the state-owned rail operator DB (Federal Ministry of Transport, Building and Urban Development), and major protected areas and species protection (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety).

The Committee on Tourism of the German Bundestag plays an important role in tourism. As a permanent member of the committee the tourism commissioner of the federal government brings in the interests of the German government into the policy debates.

As a result of Germany's federal constitutional structure, there are many fields of activity where it is incumbent on federal institutions to create a legislative framework, while the concrete implementing acts and associated secondary legislation are adopted by the Länder.

The German National Tourist Board (DZT) is responsible for promoting Germany as a holiday and travel destination abroad on behalf of the regions. The DZT's funding has increased continuously during the last few years to reach approximately € 26.3 million in the 2009 financial year. In addition to this, the tourism actors

are organized in associations and stakeholder groups concerned with specific fields of activity. For instance, the German Travel Association (DRV) represents the interests of the travel industry, the German Tourism Association (DTV) represents tourist regions and destinations, the German Hotels and Restaurants Association (DEHOGA) represents the hotels and catering sectors, and the German Spas Association (DHSV) represents health resorts and spas. Among the associations with a specific focus on the Alpine regions are for instance the Association of Seilbahnen und Schlepplifte (VDS) and the German Alpine Club (DAV).

In Bavaria, tourism-policy issues at parliamentary level are dealt with by the Land Parliament Committee on Economic Affairs, Infrastructure, Transport and Technology. At ministerial level, the core responsibility for tourism policy lies with the Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology, while at federal level, there are also areas of legislation for which the competence lies with other Ministries. The Bavarian Tourism Marketing (BAYERN TOURISMUS Marketing GmbH) is responsible for the promotion of Bavaria as a holiday and travel destination within Germany as well as abroad. Most national stakeholder groups also have their correspondents in the Länder. Thus, the Bavarian Hotels and Restaurants Association (DEHOGA Bavaria) represents the Bavarian hotel and catering sector, and the Bavarian Spas Association (BHV) represents health resorts and spas. Dedicated tourism divisions extend down to regions and districts, where the issue mostly falls within the Province for the promotion of economic development. Districts where the sector is a major factor for their economy tend to have their own tourism committees.

Italy

General administrative organization in Italy

The Italian Alpine arch is divided into 7 different Regions (Liguria, Piemonte, Valle d'Aosta/Vallee d'Aoste, Lombardia, Veneto, Trentino–Alto Adige/South Tyrol, Friuli – Venezia Giulia), 23 provinces and 1,756 municipalities (Permanent Secretariat of the Alpine Convention, 2007). Some municipalities develop (some of) their activities in associated forms, creating autonomously or in compliance with law an ad hoc further administrative level between the municipal one and the provincial one (LAU-1); it is in particular the case of:

- Mountain Communities: www.comuniverso.it/index.cfm?menu=331

- District Communities - "Bezirkgemeinschaften" (8, all in the Autonomous Province of Bolzano/Bozen): www.provincia.bz.it/enti-locali/temi/447.asp,
- Valley Communities (16, all in the Autonomous Province of Trento): www.provincia.tn.it,
- Unions of the Municipalities (29 in the Alpine arch): goo.gl/acJtz,
- Metropolitan Areas: www.governo.it/Governo/Costituzione/note.html#20

National level

Since May 2006, tourism has become an area of competence of the Presidency of the Council of Ministers, Department for Tourism Development and Competitiveness. The State is mainly responsible for representing the country as a whole at international events, moreover it is in charge of coordinating promotional initiatives abroad. One of the State's tasks concerning tourism is the definition of the "National Guidelines" in this sector and, according to the Regions, of the principles and the objectives for the enhancement and development of the tourist sector. The State is also entrusted with the inter-sectoral coordination of activities belonging to its competence and of the possibility of co-financing regional and inter-regional programmes for tourism development. Acting as guarantor, the State is allowed to substitute Regions in case of unproductive behaviour. The main public authorities responsible for the tourist sector at national level are:

- the Department for Tourism Development and Competitiveness of the Italian Government;
- the new Committee for Tourist Policies (2006) (Decree of the President of the Council of Ministers of July 28th, 2006) and Permanent Committee for Tourism Promotion in Italy (2011) (art.58 of the Law by Decree n°79 of May 23rd, 2011);
- the National Observatory for Tourism (ONT) (2006) (art.9 of the Decree of the President of the Republic n°207 of 2006);
- the National Agency for Tourism (ENIT) (2005) (art.20 of the Law n°80 of 2005);
- the National Conference of Regions and Autonomous Provinces.

Main actors

After the introduction of the "Tourism Code" and in line with the law, in the medium-long term some significant national actors will be given particular attentions and receive several proposals as well as some targeted territorial projects concerning future strategies for the Italian tourist sector. In particular, the Code establishes that the Italian Alpine Club (CAI) is to become a

privileged partner for projects aiming at the sustainable development of mountain areas.

Some articles of the law improve the efficacy of the role of the National Agency of Tourism, compared to the original ENIT it sets higher and more articulated institutional mission statements. This Agency has great autonomy and it needs to comply to the objectives of the Ministry of Tourism, that supervises it. The main task of the Agency is the promotion of the Italian tourist offer as a whole, also favouring its commercialization. In this respect, this authority:

- takes care of the integrated promotion of the regional tourist resources;
- promotes the various typologies of the national tourist offer;
- outlines promotional strategies at national and international level in order to support the commercialization of the Italian tourist products abroad;
- develops consulting and assistance activities for Public Authorities in the field of tourist products promotion and harmonisation of information and reception services.

The National Observatory for Tourism (ONT), established by the Decree of the President of the Republic n°207, April 6th, 2006 and afterwards regulated by the Decree of the President of the Council of Ministers of February 16th, 2007, has its base with the Department for Tourism Development and Competitiveness (DSCT) of the Presidency of the Council of Ministers. All in all, the main objectives of the National Observatory of Tourism are:

- unifying the existing research on tourism, drawing on all sources and data in a systemic manner, integrating them with specific works;
- spreading of real-time information and validated data on tourist trends and phenomena;
- providing policy makers with useful indications for the development of the strategic promotion of the "National Economic System" and for the promotion of the tourist offer;
- acting as a link between the different institutional and territorial actors researching in the field of tourism, providing a transferable model on a national scale.

In line with the objectives and the tasks of each involved institution, the Observatory avails itself of institutional bodies linked by partnerships, or concluding agreements, conventions and protocols, in particular as regards to ISTAT (National Statistical Institute), the National Bank (Banca d'Italia) and Unioncamere (Italian Union of the Chambers of Commerce), which are bodies producing

statistics on economical aspects particularly related with tourism.

Regional level

Recent modifications of institutional and legal structures, as for example the reform of the 5th Title of the Constitution, entrusted the Regions with exclusive competence in the field of tourism. In this framework, Alpine Regions are dealing with:

- authorization's granting and APT (Tourist Promotion Agencies) establishment;
- identification and acknowledgement of STL (Local Tourist Systems);
- definition of types of accommodation facilities;
- definition of actions which favour development;
- collaboration in the elaboration of the sectoral guidelines, in the framework of the National Conference of Regions and Autonomous Provinces.

Regions are also delegated of disciplining: accommodation facilities, travel and tourism agencies, farm-holidays, tourist occupations, regional tourist information and promotion. Another task for the regions is the definition, in abidance with local autonomies and the EU legislation, of policies and programmes for the Regional tourist development.

Provincial level

Provinces are entrusted mainly with administrative functions, excluding the competences of the other territorial authorities. In general, as regards to the functions delegated to Provinces, their field of intervention are, among others: activities of promotion, tourist's reception, tourist professions, authorizations, control and monitoring of tourist enterprises' activities, possible supply of services and funds to tourist enterprises, collection and/or transferring of data, tourist systems and networks, training activities. Some Alpine Regions such as Liguria and Lombardia have already applied the subsidiarity principle established by law, entrusting Provinces with several different functions.

Local level

At local level the national framework shows a greater homogeneity as for the actors mainly in charge of the tourist information and reception:

- "Pro-Loco" offices (local offices which organise cultural, sporting and trade events) are present in all the Regional contexts, excepted for Alto Adige/South Tyrol;
- Offices for Tourist Information and Reception (IAT) are wide spread (except for the Autonomous Provinces of Trento and Bolzano/Bozen);

- Consortiums are only provided for Alto Adige/South Tyrol, Friuli – Venezia Giulia and Valle d’Aosta/Vallée d’Aoste;
- Local Tourist Systems (STL) are a peripheral instrument for coordination not evenly widespread;
- the so-called on field-APT (Tourist Promotion Agencies) are present in the Autonomous Province of Trento.

Municipalities deal with: coordination tasks together with the APT; promotion of recreational and sporting activities; management of facilities and services complementary to the tourist activity; granting authorizations for farm-holidays and licenses for hotels and practitioners; administrative policing activities for mountain huts, camping and other extra-hotel accommodations; other functions eventually delegated by the Region, such as the hotel classification and the imposition of destination bonds. Mountain Communities are entrusted in supporting Municipalities in order to favour the enhancement of mountain areas, within the framework of the regional legal authority.

Liechtenstein

In Liechtenstein the National Ministry of Economy directs the “Liechtenstein Marketing” an organisation created solely for this purpose. The organization also has an administrative board, an executive board and auditors. It employs seven people that jointly coordinate tourism in Liechtenstein. They also manage the online platform www.tourismus.li.

The purpose of “Liechtenstein Marketing” is to merchandize Liechtenstein as an economic and touristic destination. It is responsible for the marketing strategy, the destination management and the organization of large events nationally and internationally. The major political priorities deal with marketing Liechtenstein abroad, attracting business investors but also promoting Liechtenstein as an attractive holiday destination.

The National office of Statistics collects the data on tourism and publishes a yearly report that is available online at www.llv.li/amtsstellen/llv-as-tourismus.htm.

Villages have their own commissions (e.g. commission for culture, commission for leisure) dealing partly with matters regarding tourism. This is especially important for the two most touristic villages: Triesenberg (hiking and biking in summer and skiing in winter) and Vaduz (day tourists and business tourists).

Due to the small size of Liechtenstein, no additional regional organisations are involved in the organisation of tourism.

Slovenia

Tourism policy is within the purview of the Ministry of Economic Development and Technology after the last parliamentary elections on December, 2011 and remains part of the overall Slovenian economic policy. Administrative and legislative issues concerning tourism are delivered to the Tourism and Internationalization Directorate. The Tourism and Internationalization Directorate has operated as an independent Directorate since May 2011. Within the field of tourism and foreign economic relations, the Directorate prepares and implements tourism policies and strategies, prepares regulations in the field of tourism and catering, leads and coordinates all matters concerning the common trade policy, takes care of promoting domestic SMEs and Industry Internationalization and promotes foreign Investments in Slovenia.

The Directorate is divided into two divisions:

- Tourism Division (national policy on tourism and structural policies impacting on tourism coordination, Foreign and EU relations in tourism);
- Internationalisation Division (Foreign Investments promotion and domestic Industry and SMEs internationalization).

The promotion of Slovenia as a tourist destination and the corresponding marketing activities are the responsibility of the Slovenian Tourist Board (STB). The STB was set up in 1995 by the Government as a partly-commercial, partly state-funded organisation. In 2010, the STB got a new status as full-state-funded institution responsible for development, promotion and marketing of Slovenia as a tourist destination. The STB provides certain services on a fee basis also for the tourism industry. On the whole, it is responsible for managing, promoting and advertising the national tourism brand “I feel Slovenia”. Within its annual working programme it supports creativity, innovation and the design of new products and services (the Sower Award Competition, The Weaver Award competition and Bank of Tourism Potentials), promotes internationalisation and quality diversification of tourism supply, promotes quality and uniqueness of the tourists’ experience, manages visitors structure, takes care of public relations and advertising campaigns in important consumer markets, carries out R&D in the field of tourism marketing etc. Slovenian Tourist Board, www.slovenia.info.

The legislative Authority in tourism affairs is vested to the national Government and the parliament.

In November 2010, the Government of the Republic

of Slovenia established the Slovenian Tourism Council, which tackles important issues in the field of tourism. The Council is headed by the Prime Minister, and the responsible Minister of the economy as his deputy. It is composed of 19 members, ministry representatives or different government representatives, tourism economic associations and tourism industry.

Administrative and legislative issues concerning sustainable tourism in the Alpine area and implementation of Tourism Protocol in Slovenia in terms of environmental issues, sustainable transport, rural development, eco-innovations, climate change issues, protected areas, biodiversity, human resource management in Alpine areas/destinations are distributed among several other sectors and policies:

- the Ministry of Transport and Spatial Planning (www.mzip.gov.si);
- the Ministry of agriculture and the environment (www.mko.gov.si/en);
- The Ministry of Education, Science, Culture and Sport (www.mizks.gov.si/en);
- tourism legislation is also affected by the European Union legislation, e.g. in the realm of consumer protection, internal EU market-services, customs and tax-duties, migration etc.

Slovenia does not have a provincial governmental body responsible for tourism or a provincial tourist offices in charge of tourism promotion in and outside Slovenia. Tourism development (without promotion and marketing of tourism and tourism legislation) at regional level is entrusted to the 12 Regional development Agencies which are depend on the Regional Councils comprised by mayors of local communities responsible for regional (12 development regions) tourism development and co-responsible for the implementation of national legislation and national development objectives of Slovene tourism at regional level.

At local level each Mayor and the Community Council are also co-responsible for the tourism development in community/destination. Locally collected "Tourist tax" (amount of tax which is collected by accommodation services); have to be used by the local community to establish and maintain tourism facilities and for other tourism development purposes at local level.

The most important civil society organisation in the field of tourism is the Tourist Association of Slovenia (TAS) www.turisticna-zveza.si/OsebnaKartica.php.

It is the oldest non-governmental, civil tourism association of Friends of Tourism Slovenia (in the year 2005, it celebrated its centenary) and incorporates more than

655 local tourist societies (clubs with several thousands of civil friends of Tourism) throughout the country.

Other important organisations at national level are the Chamber of Commerce, Hospitality and Tourism, eng.gzs.si/slo (representing among others compulsory members the interests of all leisure and tourism entrepreneurs) as well as the Chamber of Craft, www.ozs.si/eng/prispevek.asp?IDpm=19 (representing among others the interests of the tourism small entrepreneurs and craftsmen) and the Trade Union for Tourism and Catering workers, www.sindikar-git.si/eng.

There are two major tourism associations at national level which represent the interests of their members (voluntary membership) that is the Association of Slovene Travel Agencies (www.ztas.org/eng) and the SloveniaSpasAssociation (www.slovenskazdravilisca.si/en/informacija.asp?id_meta_type=1&view=Splosno).

There are two separate industry associations; The Slovenian Convention Bureau, www.slovenia-convention.com and the National Tourist Association of Slovene Tourism Industry which was founded on December 16th, 1993 with the aim of promoting tourism in Slovenia as a strategic economic and development opportunity. The private association performs activities of private and public interest in Slovenia and abroad, www.ntz-nta.si. Statistical Office of the Republic of Slovenia - www.stat.si is in charge of collecting, analysing and disseminating data on tourism.

Switzerland

Switzerland is a federal State, organized in three different political levels: the Confederation at the top, the Cantons and the communes. The system is organized according to the principle of subsidiarity, which expresses the idea that the smallest entity able to deal with something has the competence to do so. It gives a great role to decentralized entities which are the Cantons and communes in Switzerland.

The competences in the tourist field are then shared between these three levels, according to the competences of each body. The Reform of the fiscal equalization system (RPT) in 2008 redefined responsibilities in a number of policy areas; many of them were allocated entirely to the cantonal or the federal level.

In June 2010 the Swiss Federal Council approved the new strategy for Switzerland as a tourist destination. The new strategy provides the guidelines for the national tourism policy which has two main objectives: the amelioration

of the framework conditions and the promotion of tourist places. In order to achieve the aforementioned objectives, the policy draws upon four strategies: an active management of strategic issues, the development of cross-sectorial tasks, improving the attractiveness of the tourist services and the reinforcement of Switzerland as a tourist destination on the markets. The State Secretariat for Economic Affairs SECO has published the first implementation program for the period 2012-2015 in April 2012 ("Umsetzungsprogramm 2012-2015").

Furthermore, tourist projects can be promoted by the Federal Regional Policy (NRP), a policy which is co-funded by the Confederation and the Cantons and by the RPT: with the Reform of the fiscal equalization system (RPT), about 2.5 billion federal funds are redistributed to the Cantons every year and can be used for all kind of projects. Furthermore, the cooperation between Cantons and the Confederation has been redefined. The Confederation is responsible for the establishment and the revision of the framework conditions for the various objectives identified (economy, international relations, health, tourism etc.).

With relation to tourism, the following organs are in charge of various tasks at national level:

- the Parliamentary Group for Tourism and Transports (composed of members of both federal chambers) takes care of the information on touristic affairs;
- the Federal Department of Economic Affairs is the body responsible for the economic promotion of Switzerland, through the State Secretariat for Economic Affairs SECO. In this frame, it is in charge of the implementation of the tourism policy at national level. The SECO is also in contact with the most important international tourism bodies (EU, OECD, UNWTO). Furthermore, the SECO is in charge of the NRP, a tool that encourages initiatives developing tourist activities in peripheral regions strongly dependent on tourism;
- the implementation of the tourism policy primarily deals with encouraging innovation and collaboration (Innotour, see below) in the field of tourism as well as the supervision of the outsourced organisations Tourism Switzerland (ST) and Swiss Hotel Loan Company (SGH);
- Tourism Switzerland (ST) is a public corporation, subject to supervision by the SECO. Its main task is to promote Switzerland as a destination country for travel and tourism. It has branch offices in the countries where the majority of tourists come from, in order to provide on-the-spot marketing for Switzerland as a tourist destination. Tourism Switzerland closely cooperates with the most

important tourism actors in Switzerland. Finally, ST is also in contact with the tourist information offices that work on a regional scale;

- the Swiss Hotel Loan Company (SGH) is a public cooperative, also subject to supervision by the SECO. It grants subordinated loans to accommodation businesses in tourist areas on advantageous terms. In addition, the company operates a consultancy department, offering fee-paid consultancy services to the accommodation industry;
- the Swiss Tourism Federation (STV) is the umbrella federation of the Swiss tourism sector. Many important actors in Swiss tourism are members of the STV, in particular the important associations that are Hotelleriesuisse (Swiss Hotel Association), GastroSuisse (Swiss Association of Restaurants) and Seilbahnen Schweiz (Swiss Association of cable cars). The main task of STV is to take care of its members' interests and of tourism in general. It also encourages innovation and quality through education, labelling and networks.

The Cantons and municipalities are responsible for the tourism policy at lower level. The Cantons manage the various tourist charges used for financing, among others, the promotion of cantonal tourism locations. these taxes are: the tourist tax (taxe de séjour), the accommodation tax (taxe d'hébergement) and the economic promotion tax (taxe de promotion économique).

The Tourist information offices and regional touristic associations promote their image and products, collaborate with Tourism Switzerland and raise awareness of the population and the authorities on the importance of tourism for their region.

Some of the Cantons particularly active in the field of tourism have also created services or divisions specific for tourism (Bern, Valais, Graubünden, Ticino and St.Gallen, all situated into the perimeter of the Alpine Convention, with Valais and Graubünden being the most important regions for Alpine tourism).

B.3.3 ROLE OF TOURISM IN THE ECONOMY

A report on sustainable tourism in the Alps is confronted with the issues of the availability and comparability of data. The perimeter of the Alpine Convention includes parts of eight countries, and does not correspond to a single statistical area.

Firstly, each country has its own definitions and way to calculate indicators, and data about sustainable tourism are not always available at comparable territorial levels. Furthermore e.g. days of stays in second homes are not precisely quantifiable.

Secondly, the nature of tourism makes it arduous to provide a thorough analysis. The inter-sectoral and non-identifiable feature of tourism does not allow a comprehensive picture of its impact on economy, society and environment to be drawn. The diversity of situations and the complexity of the topic imply that the municipality level is the most suitable level for a correct analysis of tourism. Collateral consequences created by tourism remain hard to estimate (waste production, pollution, water and energy consumption etc.). Since tourism is often seen as an economic sector only, it is most cases considered part of the administration dealing with economic affairs; in fact the most common available data is about economic quantification of the tourism offers. Its synergies with other local economic sectors like trade, construction, commerce or agriculture are generally not taken into account.

The difficulty in finding data on the environmental and social impacts of tourism and demand compels to veer towards qualitative data and case studies.

However, a study of the Swiss research institute BAKBASEL proposes several data in a benchmarking of tourism with a specific section on the Alps (BAKBASEL, 2011). The perimeter taken into consideration slightly differs from the application perimeter of the Alpine Convention and some cities such as Ljubljana are considered in the study but are not part of the Alpine Convention. This must be kept in mind when reading the data as it may have influenced the results. The study was published in December 2011, with the most recent existing data. Due to lack of data, the authors performed many extrapolations and estimates, to give a full account on the Alpine situation. Thus, the figures cited in the following are only an indication.

In the following paragraphs, the data proposed by this study are completed with figures from other sources, to give a general picture of the importance of tourism in the Alps, mainly from an economic point of view.

Tourism is a fast-growing sector and the number of tourists continues to increase all over the world. It has become an important component of the modern lifestyle.

The importance of Alpine tourism can be measured in market share on a global scale. In 2010, the Alps became one of the most important tourist destination in the world. However, the Alpine region has not grown as fast as other regions, mainly the Middle-East (BAKBASEL 2011, p.39). WWF Italy (2006) talks about 10% of global tourist overnight stays, APAT (2007) reports about 12%.

In term of visits, the Working Group Transport of the Alpine Convention estimated that 95 millions long-stay tourists and 60 millions day-trip visitors visit the Alps every year (Alpine Convention, 2008, p.3). The 95 millions long-stay tourists estimation covers foreign and endogenous tourism, but it is probably an underestimation, as stays in secondary residences are not always taken into account in national statistics.

Tourism offers can only partly be measured by the number of tourist beds available. In the Alps, in 2010, this number was estimated at 7.3 million (BAKBASEL, 2011, p.41). This estimation covers beds in second homes (non-commercial beds), hotels and para-hotellerie. As for the demand, 464 millions overnight stays were estimated (BAKBASEL, 2011, p.42). However, both beds and overnight stays do not include the one-day trips, that are frequent in the Alps, and thus do not give a full picture of situation. Day visitors greatly contribute to tourism income. The Swiss tourism satellite account roughly estimates that a third of the sales of tourism in Switzerland is attributable to day visitors (Conseil fédéral Suisse, 2010, p.15).

However, the change in the figures above is interesting because they show some trends. From 1995 to 2010, there has been stagnation in the offer of tourist beds (hotels only). But the annual mean growth of overnight stays has reached 6.3% (BAKBASEL, 2011, p.43). When looking at the situation in more details, it is possible to notice differences between countries. In the German Alps, as well as in Liechtenstein, there has been a decrease, stagnation in the French Alps, whereas the Swiss, Austrian, Italian and Slovenian Alps have witnessed a growth in the number of overnight stays in hotels. In general, the BAKBASEL study concludes that the winter season has been more successful. However, the growth of overnight stays does not say if it is due to more arrivals and more tourists in general or to longer stays of the same person.

As for the labour market generated by tourism, the percentage of jobs in the hotel and restaurant sector of the Alps is about 7% minimum (BAKBASEL, 2011, p.40). The OECD estimated that tourism accounted for 10-12% of the Alpine labour market (OECD, 2007, p.18), the BAKBASEL around 15%, both including jobs directly and indirectly linked to tourism (BAKBASEL, 2011, p.40).

All the figures presented above are estimations or incomplete. Moreover, great variations are to be found depending on the regions considered.

The economy of only 10% of the municipalities, representing 8% of the Alpine population, is based on tourism, and 46% of the beds are concentrated in 5% of the municipalities, according to the Working Group Demography and Employment of the Alpine Convention (Price et al., 2011, p.8).

Therefore, tourism is not evenly spread throughout the Alpine region, but tends to be concentrated in easily

accessible valleys and basins. 37% of Alpine municipalities have no tourist beds (Tappeiner et al., 2008, in Price et al., 2011, p.8).

In conclusion, tourism brings a significant contribution to the economy of the Alpine region (around € 50 billion yearly according to OECD, 2007), but there are large regional and local differences. For this reason economic tourism impacts should be analyzed at municipality level.

National contributions

Austria

According to the Austrian Tourism Satellite Account, the direct and indirect value-added effects of tourism in 2011 were 7.4% of the GDP (Statistik Austria/WIFO). During 2011, about 184,550 people were employed in the accommodation and gastronomy sector, which represents 5.4% of the total national employment (Federal Ministry of Labour, Social Affairs and Consumer Protection).

In Austria the enterprises involved in the tourism and leisure industry are mainly small and medium size. Around 93% of the enterprises have 0-9 employees. Furthermore, 99% of the enterprises of the tourism and leisure sector have less than 50 employees and nearly 59% of the employees of this sector are working in these smaller enterprises (Federal Chamber of Commerce, employment statistics).

In recent years, Austria has undergone a shift from the summer season towards the winter season (overnights in winter 1979/1980 33.7%, nowadays around 50%). In the winter season 2005/2006 the overnights were for the first time higher than the ones in summer (Statistik Austria).

In 2011, the Austrian Alps registered more than 60 million overnight stays (+3.2% compared to 2006) and over 16 million arrivals (+12.5% compared to 2006) in hotels and similar categories. This represents 73.1% of the whole Austrian overnights and 62.5% of the Austrian arrivals in hotels and similar categories. The tourism in the Alpine region is still growing in Austria but not as strong as the arrivals (+16%/2006) and overnights (+6.3%/2006) in Austria as a whole tourism destination.

France

Tourism is France's largest industry with a balance of payments surplus of approximately 8 billion euros in 2009 and a turnover of € 120 billion produced by 230,000 enterprises. It accounts for 6.3% of the French GDP and employs 1 million workers directly and 2

million indirectly. France is the most popular destination in the world in terms of incoming international tourists (76 million in 2010, more than a quarter of which in Paris), but is only third in terms of revenues of over € 35 billion. Despite these positive results, tourism in France is affected by three main issues: a high level of seasonality, imbalanced territorial visitor numbers, and recurring social fragmentation. Revenue levels can be partly explained by these three elements.

Looking at the calendar, the summer season has always been preferred by French holidaymakers who concentrate on the July/August period. This has become more branched in recent years, with more frequent short vacation periods during the course of the year, leading to higher prices during these periods. This seasonal effect has produced a large number of seasonal jobs (estimated around 400,000).

Finally, as far as social effects are concerned, it has been some years now that one third of the French population do not take vacations, not for professional or personal reasons, but mainly because of personal budget considerations. In considering these constraints on French tourism one should also consider the relatively high prices of tourism services, with a price-quality ratio perceived as being fairly low, and a level of hospitality which is generally considered basic (language, training and skills issues) with a prevalence of small-size, vulnerable tourism enterprises that no longer have the means to invest (especially in the lodging business).

Some of the largest, privately owned operators (global leaders in this industry) are Club Méditerranée, leader in the field of holiday villages, Pierre et Vacances, leader in the field of tourist residences, Groupe Accor, hotels in all categories and the Groupe Le Louvre, hotels in all categories.

Germany

Tourism is a key and growing economic sector in Germany, both at national as well as, more specifically, at Bavarian level. It directly accounts for 4.4% and indirectly for 9%

of Germany's economic gross value added and employs 2.9 million people directly (corresponding to 7% of the workforce) and 4.9 million people indirectly.

In 2011 the Bavarian Alps registered about 32 million overnight stays and 6.7 million arrivals creating a GDP contribution of about € 3.94 billion and 65,700 jobs. In addition, an estimated number of 18 million day trip visitors from the metropolis area of Munich, Augsburg and the Nürnberg region visit the Bavarian Alps yearly for leisure, recreation and sports.

The tourism sector in the German Alpine region is dominated by small and highly differentiated businesses. There are no large hotel complexes, and only very few hotels have a capacity of more than 200 rooms. Tourism began to develop throughout the mountains very early in the 19th century, when railways allowed easy access to the German Alps. Large numbers of small accommodation businesses sprang up, as did mountain railways, and it rapidly found a lasting market demand because the region was relatively easy for visitors to reach. Even at that time, many locations had considerable expertise in health services, many of which were based on local remedies and treatments (e.g. salt, mineral water, thermal waters, bracing climate and clean air, Kneipp therapy). Tourism was already a year-round business during this period, with winter sport representing just one of many attractions. After the Second World War, the sector's development became even more dynamic, while the previously existing small-scale commercial and service structures continued to stand to the fore. In many cases, farmers looked at tourism as a subsidiary source of earnings. It was only for health resorts, which now enjoy state recognition, that large spa clinics and the extensive infrastructure such as baths and spa houses were built.

To the present day, Alpine tourism in Bavaria is a much more significant source of revenue in summer than in winter, and even in winter health and recreation tourism is markedly more important than winter sports. The main emphasis is placed on contact with nature, combined with activities such as walking, hiking, cycling and swimming at the numerous bathing lakes in summer. Despite a massive decline due to several reforms of the spa sector, health tourism is of great significance in many locations to the present day.

Italy

In 2010 the overnight stays in the Italian mountain region accommodation facilities accounted for 12.8% of the national percentage, which brought mountain areas to range 3rd among Italian tourist destinations (after

the seaside and urban heritage centres). With regard to provenance, Italian tourists account for the greater part of overnight stays (60.2% in mountain areas) (ISNART, 2011). Specifically, with regard to the Alpine region, out of 820,000 available places (hotel and extra-hotel accommodations), Italian Alps attract about 20% of overnight visitors (Legambiente, 2009). Tourism in the Italian Alps is still prominently seasonal. Countertrends are noticed mainly in the Regions with a special statutory autonomy and in the Autonomous Provinces, where there are noticeable signals of the development of a tourist culture among operators, thanks to training courses offered to practitioners.

Liechtenstein

Liechtenstein's tourist destinations are relatively small compared to other Alpine areas. Therefore, no large scale enterprises are involved in tourism. Tourism is currently concentrated in one ski resort, Malbun with six hotels (37,475 overnight stays), and another 33 hotels in the river Rhine valley (77,576 overnight stays). Altogether 166 835 overnight stays were registered in Liechtenstein in the year 2010. These correspond to: 69% hotels, 13.6% holiday apartments, 9.2% camping, 4.3% youth hostel and 3.9% in dormitories.

However, since travel distances are very short (e.g. Vaduz-Malbun: 12 km) the overnight stays may not directly correspond to what tourists actually do. For example, most of the tourists staying overnight could still be enjoying activities in the mountainous areas. For example, the village Triesenberg has also 10 Hotels in the river Rhine valley, but is only 7.5 km from the ski resort in Malbun.

Altogether 321 people were employed in Hotels in 2010 (on average 7.6 per Hotel). This corresponds to less than 1% of Liechtenstein's overall employment market (about 34 000 jobs).

In the summer, hiking accounts for about 80% of the touristic activities in the Alps, followed by mountain biking, with 400 km of trails available. Winter tourism mainly focuses on different types of winter sports: skiing, sledging, skating and snow shoe hiking.

Slovenia

In 2010, tourism in mountain resorts accounted for 23% of all overnight stays and 25% of all tourist arrivals in Slovenia, making the Alpine region rank second on the economic indicator (Slovenian health resorts account

for most tourist overnight stays). Accommodation in mountain tourism is mostly owned by private stakeholders (private rooms, apartments, holiday houses, boarding houses, camp sites, tourist farms with accommodation etc.). The largest stakeholder in the area is Sava Hotels & Resorts with a large number of hotels, wellness centres, golf courses, camping sites, medical tourism and other options.

Switzerland

Tourism is very important for the Swiss economy but it is not taken into account in the national statistics. In order

for this to be evaluated carefully and provide detailed information on the impact of tourism on the national GDP, demand and employment, there is a statistical accountant framework for tourism, called "Tourism Satellite Account" (TSA) which contains detailed production accounts of the tourism industry and its connection with other industries. The TSA is partially financed by the SECO. Switzerland made a first TSA for 1998, two additional accounts followed in 2001 and 2005. The TSA covering the years up to 2010 was published in February 2012.

The TSA sheds light on the impact of tourism on the economy as a whole. However, this is a complex and demanding task, as many economic activities thrive on tourism (e.g. retail sale, real estate).

B.3.4 PUBLIC FINANCING OF TOURISM IN THE ALPINE COUNTRIES

This chapter focuses on the structure, systematic and principles of public financing. With regard to granting direct economic support to tourism by the Member

States, the European legislation sets tight restrictions, especially for what concerns competition and internal market. Direct economic support by the Member States or subsidies could only be permitted if they serve a public purpose without disrupting competitive market conditions.

National contributions

Austria

The Federal Ministry of Economy, Family and Youth (BMWfJ) is responsible for the strategic use of budget funds to support activities in the tourism and leisure industry. In addition to federal budget funds, financial resources from the European Recovery Programme (ERP) and EU co-financing funds are used.

The following general targets have been set for BMWfJ funding of tourism activities: improving the framework conditions of the tourism sector, improvement of quality and location, optimization of company size and structure with the aim of prolonging tourist seasons, creation of co-operation and networks, and the use of modern advertising methods.

Based on the current version of the "General framework directives for the granting of public aid" (2004), the BMWfJ also grants single subsidies. In this context, it is worth mentioning the renovation of mountain rescue huts programme, whose objective is to secure environmental protection measures for rescue huts in Alpine regions which could be relevant to tourism.

In 2011, the national tourism administration had a budget of around € 61.9 million, of which € 29.1 million

were allocated to the support of SMEs administered by the Austrian Bank for Tourism Development, € 24.3 million were assigned to the ANTO, and a further € 8.5 million were dispensed by the Ministry as means of individual subsidies for research and other projects. In addition, a total of € 43.4 million of the ERP-funds were made available for loans to SMEs in the tourism industry. At "Länder" level: All nine Austrian States also have their own budget for tourism and tourism development programmes. Contribution towards tourism is based on a system of obligatory contributions paid by tourism enterprises to develop a modern tourism industry taking due account of its economic, social, cultural, ethnic and ecological impacts. The overnight accommodation tax "Ortstaxe" is a small tax for tourists included in the price of the accommodation they choose and it is used by the local communities to build and maintain tourism facilities.

France

In 2011, the Ministry had a budget of approximately € 50 million and a total staff of approximately 500 employees. These figures, however, account for only a minimal part of the public money invested in tourism. In France, tourism is a shared competence and therefore there are also many other resources and Ministries involved (e.g. agriculture

and regional development, culture, environment and transport, internal affairs, youth and sports etc.), as well as fiscal incentives on expenditure (VAT, tax exemptions), and contributions from local authorities, especially from the Regions.

Germany

The de minimis ceiling for non-notifiable subsidies is currently € 200,000 over three fiscal years.

The Bavarian State Government applies, within the EU framework, financial incentives in order to strengthen the competitiveness of the predominantly small and middle enterprises in the tourism sector ("Bayerisches Regionales Förderprogramm für die Gewerbliche Wirtschaft" - BRF) and public infrastructure in the structurally and economically weak regions ("Richtlinie zur Förderung von öffentlichen touristischen Infrastruktureinrichtungen" - RÖFE).

In the foreground of the touristic investment incentives is the quality improvement of the tourist offer. First of all, investments for the modernisation and rationalisation are supported, and the same is for the improvement of the offer, building new facilities to encourage the prolongation of seasons, as well as the ability to cater for specific needs, e.g. for culture, nature and sports fans, for children, families, seniors or handicapped people. Environmental issues have to be considered.

In addition, a temporary funding program was set up in 2009 to support cable car infrastructure improvements in small ski resorts. The aim is on the renewal of the ski lifts, which are often over 20 years old, and the auxiliary infrastructure that is often used by local and regional ski sport organizations. All-year-round use (i.e. also for summer tourism) is a prerequisite.

Besides, these investments, another important support is given to tourist branding and location marketing. The Bavarian Economic Ministry co-finances marketing activities of the country marketing organization BAYERN TOURISMUS Marketing GmbH as well as regional tourism associations.

At municipal level, municipalities with significant tourism can levy a fee on overnight stays. It is collected by accommodation services and is used by the local communities to establish and maintain tourism facilities. Likewise, state-approved spa and health resort towns can levy a fee on overnight stays to compensate for the enhanced infrastructure requirements.

The reduction of VAT from 19% to 7% on cable car

services in 2008 and on accommodation in 2010 brought VAT to the level of other EU countries.

Italy

The following overview on tourism financing in Italy considers both free grants and subsidised credit. Funding may be both direct and indirect – i.e. directly provided for specific projects or disbursed through existing local institutions. Funding beneficiaries include not only private enterprises, but also Italian households and institutions. Funding sources are mainly:

- the European Union, financing SMEs or co-financing tourism development projects mainly through Structural Funds (e.g. European Regional Development Fund, European Social Fund, European Agricultural Guidance and Guarantee Fund, and further European initiatives such as Interreg, Leader+, Urban and EQUAL);
- the Italian government, finances private enterprises through the industrial funds and families according to their income through Holiday Vouchers (both ruled by Legislative Decree n. 79/2011), but also supporting bank credit (e.g. through the "Italia & Turismo" project);
- banks, providing subsidised credit, also co-financed by governmental projects like "Italia & Turismo";
- public institutions (regional, provincial, local), financing ad-hoc projects through tendering;
- other institutions, foundations, bank foundations, enterprises or associations.

Liechtenstein

"Liechtenstein Marketing" is financed by the revenues obtained by selling products and services (e.g. tourist shops), national subsidies and visitor taxes. The visitor tax is paid on every overnight stays. These taxes are used entirely to support "Liechtenstein Marketing".

Slovenia

The Ministry of Economy has financed € 23 million in 2011 for tourism development: € 14.2 million for projects, co-financed by the EU and € 8.8 million for the Slovenian Tourist Board. These figures do not include contributions from other sectors (Ministry of Agriculture, Forestry and Food, Ministry of Culture and others).

Local tourism organizations are financed by municipal

budget funds, revenues from tourist taxes and other budgetary resources, as well as financial resources, such as membership fees, revenues from activities, donations etc.

Switzerland

In addition to tourist promotion made through Tourism Switzerland and the support provided to lodging businesses via SGH, the Confederation supports the touristic sector with two more tools: the Innotour and the New Regional Policy (NRP).

Innotour is a federal law encouraging innovation and collaboration in tourism. It offers financial support to stakeholders with innovative tourist projects. This law has currently been revised. The new Innotour law has been in force since 1st of February 2012.

After the positive outcome of the law and after extending the transient law twice, Innotour has been converted into a permanent law on account of the very good evaluation results. At the same time, it was harmonised with the growth strategy of the Federal Council for Switzerland as a tourism destination. To finance Innotour, the Swiss parliament has approved an obligatory credit of CHF 20 million from 2012 to 2015. Innotour still focuses on the two aforementioned crucial promotion points of innovation and co-operation, supplemented by a third key promotion point, i.e. knowledge building (including knowledge merger). Promoting innovation remains the most important objective of Innotour. Top priority is the creation of new business opportunities and the improvement of existing services. Promoting co-operation aims at developing new products and at creating competitive structures. Knowledge building focuses on the improvement of training and further training provision services, the utilisation of experience and know-how as well as on the exchange of information amongst all the stakeholders in the Swiss tourist sector. Innotour concentrates on promotion at national level, which means that most financial means will be spent on projects with national orientation and for national coordination tasks. Furthermore, with the introduction of the new instrument of model projects, regional and local projects are still promoted.

Tourism projects on a regional scale with an economic impact can be supported by the New Regional Policy.

The New Regional Policy (NRP) aims to strengthen competitiveness in mountainous, rural and border areas by creating added value in the regions. In this way, it contributes to maintain and create jobs in the regions and thus, to maintain decentralized settlement and reduce regional disparities. In the tourist field, the NRP mainly

supports structural changes. Regional competitiveness is strengthened by encouraging interregional and international cooperation, simplifying structures and developing regional products.

Although the NRP is a federal policy, the main actors in the Swiss regional policy are the Cantons, as they possess a deeper understanding of their own territories. Based on cantonal implementation programs and program conventions with the Confederation they select and initiate projects to be supported by the NRP and also provide support during the project duration. They make decisions on the distribution of cantonal and federal funds. Federal funding has to be supplemented by an equivalent cantonal funding. The NRP basically offers two kinds of financial assistance: 40 million Swiss Francs per year can be paid via non-repayable grants. 50 million per year can be invested in repayable loans for infrastructure developing projects to improve the region's attractiveness.

There is also tax relief for companies promoting jobs.

Contribution of the European Commission

The European Regional Development Fund (ERDF) can provide co-financing for projects related to sustainable tourism. The ERDF aims at strengthening economic and social cohesion in the EU Member States by reducing imbalances between regions. It has three main objectives: convergence (e.g. modernization and diversification of economic structures as well as safeguarding or creating sustainable jobs), regional competitiveness and employment (e.g. innovation and the knowledge-based economy, environment and risk prevention, access to transport and telecommunications services) and territorial cooperation (e.g. development of economic and social cross-border activities, establishment and development of transnational cooperation, including bilateral cooperation between maritime regions, increasing the efficiency of regional policy through interregional promotion and cooperation, the networking and exchange of experiences between regional and local authorities). Under these objectives, in line with the National Operational Programmes, projects targeting more sustainable patterns of tourism may also find co-financing. More specifically, tourism-related projects under ERDF target enhancing cultural and natural heritage, developing accessibility and mobility related infrastructures, establishing business networks and clusters, higher value added services, joint cross-border tourism strategies and inter-regional exchange of experience.

The European Cohesion Fund can also provide co-financing for environment and transport infrastructures, which are of great importance for the tourism sector.

The European Social Fund (ESF) can co-finance, amongst others, projects aiming at educational programs and training in order to enhance productivity and the quality of employment and services in the tourism sector.

The European Agricultural Fund for Rural Development (EAFRD) aims at strengthening the EU's rural development policy by improving: the competitiveness of agriculture and forestry, the environment and the countryside, the quality of life and the management of economic activity in rural areas. Under these objectives, it could provide co-financing for different rural tourism related actions, such as: enhancing the quality of

agricultural production and products, improving the environment and the countryside, promoting tourist activities as a part of the diversification of the rural economy objective and/or studies and investments targeting at the maintenance, restoration and upgrading of the cultural heritage.

The Competitiveness and Innovation Framework Programme promotes the competitiveness of enterprises and especially SMEs. Since 2008, several specific tourism initiatives have been co-financed under this programme.

The 7th Framework Programme for Research, Technological Development and Demonstration (2007-2013) promotes activities that can be beneficial for the tourism sector, as for example, research on information and communication technologies, satellite applications, cultural heritage and land use.

C. THE ALPINE CONVENTION

Applying sustainable development principles in the field of tourism does not refer directly to types of territories, such as coastal areas or mountains. However, works of many associations, universities or research institutions on the sustainable development of mountain tourism have been published in numerous studies and reports and have been the object of debates during conferences and seminars.

Moreover, States, regions, Cantons, Länder and local communities have developed strategies, policies, legislation and initiatives intended to apply the principles of sustainability to mountain tourism, such as protection and management of natural resources and sites, climate change adaptation/mitigation activities, resort diversification, production and marketing of agricultural quality products, public transport, leisure time infrastructure, promotion of sustainable tourism and stimulation of eco-labelling and so forth.

Hence, many indicators can be found in these documents and action programmes targeted at the sustainable development of tourism and can be used as a "sustainability reference framework" for mountain areas in general and for the Alps more specifically. These indicators relate to: information about customer expectations; mainstreaming the environment within other policies; spatial planning; an integrated global approach taking into account the definition of the programme and the project (upstream) as well as its implementation and management (downstream) from the earliest stage of the programme/project; space-time management of visitors; flow control; local social and economic development; the creation of specific tourist products, with particular attention to quality; the protection, management and promotion of local resources, heritage, scenery and cultures; facility management and integration, highlighting low-energy criteria; full participation of local elected representatives and inhabitants and improvement of their living standard; information, awareness raising and education, especially in the field of tourism.

Nevertheless, it is the Alpine Convention and its implementation Protocol in the field of tourism that sets the minimum requirements defining what the development of mountain tourism is or should be.

C.1 THE ALPINE CONVENTION TOURISM PROTOCOL ON SUSTAINABLE TOURISM

The main official documents, at international level, that deal with sustainable tourism throughout the Alps are the Multiannual work programmes of the Alpine Conference (2005-2010 and 2011-2016), the Alpine Convention implementation Protocol in the field of tourism, as well as the other tourism related Protocols (spatial planning, transport, protection of nature), and the Climate Action Plan adopted in 2009.

The various chapters of the implementation Protocol in the field of tourism are *de facto* a specific reference framework for the sustainable development of Alpine tourism.

Several sets of objectives and recommendations have been submitted to its signatories:

General objectives related to the sustainability of tourism development:

- for the signatory States and the local communities: seek to stagger and diversify the supply of and demand for tourism over space and time; include sustainable tourism objectives when deciding policies related to spatial planning, transport, agriculture, forestry and environment (links with the other Protocols); share responsibility; provide support to the economically weaker areas; undertake common measures, in particular in the field of cross-border cooperation; harmonise and develop tourism-related research and knowledge; foster the training of tourism professionals and the provision of information to the public; set up an Alpine competition for innovative tourism projects and products;
- for the local populations: set up their own development project and take part in its implementation; ensure that tourism contributes to the livelihood of the permanent population;
- for tourist operators: base sustainable development of tourism related economy on the promotion of natural heritage and on the quality of services; develop the means to improve production facilities and operations; consider tourism projects on the basis of specific ecosystems; diversify tourism activities according to regional environmental and socio-economic diversity and demand trends in the markets;
- for tourists: foster their respect for nature and for local populations.

Special recommendations related to tourist facilities:

- contribute to actuate tourism offers by preparing development programmes and evaluating them at a

- budgetary, socio-economic and environmental level (articles 5 and 9) and by achieving the right balance of tourist flows through the areas (article 8);
- seek a balance between intensive and extensive tourism in areas under heavy tourism pressure (article 6);
 - foster quality in tourism offering by exchanging good practices and developing joint action plans (article 7);
 - establish designated quiet areas, where no tourist facilities will be developed (article 10);
 - give priority to commercial accommodation and accommodation in existing buildings to be modernised (article 11);
 - evaluate authorisations of ski lifts (article 12);
 - promote access to tourist resorts by public transport and reduce dependence on private motorised vehicles (article 13);
 - ensure that ski slopes blend into the natural scenery and surroundings as much as possible, replant them and authorise the use of artificial snow only if allowed by the location's hydrological, climatic and ecological conditions (article 14);
 - control outdoor sporting activities, especially sporting activities using motorised vehicles (article 15);
 - limit or prohibit landing by air for the purpose of sporting activities (article 16).

One should herewith underline the “pioneering” nature of the Tourism Protocol that was signed in Bled on October 16th 1998. There is a clear alignment between the recommendations of the Protocol and the developments of sustainable tourism after 1998.

C.2 THE CURRENT RESPONSES OF THE ALPINE CONVENTION FOR SUSTAINABLE TOURISM

This part presents the evaluation of effectiveness of the Tourism Protocol (analysis of compliance reports) and the answers given by the Alpine Convention by reference to:

1. the reports of the Compliance Committee;
2. tourism and transports (Working Group Transport);
3. tourism and climate change (Climate Action Plan);
4. tourism, nature and landscape.

C.2.1 THE REPORTS OF THE COMPLIANCE COMMITTEE

Ten years after the Alpine Convention was signed, the VIIth Alpine Conference in 2002 provided for an assessment

procedure to appraise the enforcement of this international agreement and its Protocols, under the guidance of a Compliance Committee. Each of the eight Protocols, including the one on tourism, contains a clause stating that the enforcement of the obligations contained therein should be checked.

By answering a questionnaire created by the Permanent Secretariat, each signatory illustrated the implementation of the individual Protocols in their respective countries in 2005 and then in 2009. Based upon these findings, the Compliance Committee presented a report including recommendations to the Xth Alpine Conference (Evian, March 2009) and to the XIth Alpine Conference (Brdo, March 2011).

The XIIth Alpine Conference in Poschiavo (September 2012) reviewed the compliance mechanism and introduced the following main changes in the procedure:

- the frequency of the questionnaires to be fulfilled by the Contracting parties has been extended to ten years;
- a second phase has been added to the verification procedure: after submitting its report based on the information provided by the Contracting Parties to the Alpine Conference (Phase 1), the Compliance Committee has now the possibility to conduct an in depth review procedure about the measures undertaken by the Contracting Parties to address the identified shortcomings and to select which aspects should be addressed in more detail and in what order.

The Compliance Committee started to implement the revised procedure early 2013 and selected tourism and parsimonious land-use as themes subject to the indepth review.

An examination of the tourism reports has highlighted the following points:

- a vast body of laws and regulations, both at the national and the regional levels for federal or extremely decentralized States. This body of measures is very comprehensive, but very complex, in that it combines tourism-specific rules and measures that actually interfere with tourism, and where institutional competences, particularly in the area of tourism, are shared between the national and the local bodies (see also chapter on legal framework, institutions and policies of the eight Alpine countries);
- the growing significance of legal precedents connected with the Alpine Convention, in response to suits filed by local NGOs and citizens;
- the existence in most countries of national “strategic tourism concepts”, designed to promote a balance between intensive and extensive practices, nature

tourism, quality, the heritage and local development, in line with the Protocol's objectives;

- the enforcement of European law and proactive policies in the area of environmental studies and impact assessments prior to the implementation of programs and projects;
- specific and common responses and concerns in all countries on the sustainability of transport and mobility, the use of air and land motor vehicles for leisure activities, sports or wilderness recreation;
- the presentation, with each Report, of a large number of good practices, which illustrate the implementation of the Tourism Protocol, without any demonstration that the Protocol was the driving cause for their implementation;
- some of these good practices present examples of diversification of the offer and the promotion of quality labels;
- little experience in international cooperation between non-bordering countries, outside the Alpine network of Protected Areas; more cross-border cooperation policies, which are easier to implement;
- little experimental staggering of holidays, a hard topic to deal with, although it is known that this is a key means for countering seasonality.

In conclusion, these Reports indicate that the Tourism Protocol is implemented, in particular, through the existing regulations and several good practices mentioned in them. This is undoubtedly true, although it is hard to spot out which measures stemmed directly from the implementation of the Alpine Convention and its Protocols, and which came, more generally, as a public response to environmental concerns over the mountain areas as well as the rest of the countries' domestic territory.

However, it is reasonable to assume that, over the years, the Alpine Convention has encouraged, or even directly promoted the drafting of some of these texts and practices, and that the growing awareness of the work done at the Alpine Conferences has borne fruit, particularly in terms of action planning and the development of national and regional sustainable development programs in the Alps.

At the same time, however, many local conflicts have arisen in individual Alpine countries over the use of natural resources, the heritage and the landscape, most of them in connection with the construction of tourist infrastructure and equipment. The second Compliance Report remarks on this dual attitude: "economic pressure and environmental engagement".

C.2.2 TOURISM AND TRANSPORT IN THE ALPS

The Alps not only belong to the most ecologically sensitive areas in Europe, but also to one of its most important

recreation areas with about 95 million long-stay tourists and additional 60 million day trip tourists per year. (Alpine Convention, 2008, p.3). However, tourism and in particular the motorised transport associated to it, has negative impacts on the Alps' environment including air pollution, noise and land use. As tourism is inherently linked to transport and travelling, the negative consequences of motorized transport affect the region's ecosystems and diminish its recreational value.

The Transport Protocol

The main objective of the Transport Protocol of the Alpine Convention, adopted in Lucerne in 2000 by the VIth Alpine Conference, is to pursue a sustainable transport policy which will reduce the negative effects of and risks posed by intra-Alpine and transAlpine transport to a level which is not harmful to people, flora and fauna and their environments and habitats; inter alia, by transferring an increasing use of motorised transport, especially freight transport, to the railways, by creating infrastructures and incentives in line with market principles.

In terms of tourism transport, three objectives are mentioned in the Article 13:

- encouraging of measures to reduce dependence on motorized vehicles in tourist resorts;
- promotion of both public and private initiatives to improve access by public transport to resorts and tourist areas and encouraging of tourists to use these services;
- establishment and maintenance of traffic-calmed and traffic-free zones, establishment of car-free destinations, measures of promoting the car-free arrival and stay of holiday guests.

The Working Group Transport

The first point of the mandate given to the Working Group Transport at the VIIth Alpine Conference in Merano, 2002 points out that "The Working Group will play a role of a platform for the collection of information and dissemination of all data, which is for common use, which are necessary on the one hand for the assessment of the implementation of the transport Protocol and on the other hand for the information of general public".

As regards to the current mandate of the group, the main objectives are: to develop coordinated information in the fields of transport and tourism; to implement the Alpine Convention and the Transport Protocol; to work on reducing the negative impact of transport on health and environment; to analyse, inform and develop good practices especially for sustainable mobility in urban areas and their surroundings.

Tourism and Transport in the first Report on the State of the Alps

Transport was the theme of the first Report on the State of the Alps, issued in 2007. This report says that the economic role of tourism in the Alps is dependent on and connected to the provision of transport infrastructures and capacities. These are needed to allow tourists to reach their destination in a reasonable time. They are also necessary to deliver goods and services to the tourist municipalities. The European Environment Agency estimates that up to 80% of all tourist journeys to the Alps are by car.

After the energy sector, the transport sector is the second most important emitter of greenhouse gases in the EU. When it comes to transport-specific CO₂-emissions kilometre per passenger, light duty vehicles are second to planes. Overall, however, the dominant role of the passenger car as a mode of transport makes motorised vehicles an overwhelming source of CO₂-emissions both globally and at European level. Further negative effects include air pollutants emission and noise close to residential areas as well as land take.

Consequently, the dominant role of the private car in Alpine tourism-related mobility represents an environmental pressure that needs to be taken into account, especially due to the particular fragility of mountain ecosystems. Regions with very high tourism intensity are mostly skiing areas, in particular in Austria, France, the Italian Dolomites and Valle d'Aosta as well as in Switzerland.

The long distance accessibility...

On important corridors and in large parts of the Alps, tourism accounts for a large proportion of passenger transport. Peak times on weekends during holiday times regularly lead to congestions and severe delays for cars and trucks on the road, and to overcrowded trains. Therefore, finding alternatives in this sector is a crucial issue.

In 2008/2009, the Working Group studied these specific problems. The report presented at the Xth Alpine Conference (March 2009) showed the main challenges in using public transport: public transport accessibility and quality of services; intermodality; information; pricing and ticketing; co-ordination and co-operation between transport and tourism.

Recommendations were made on a transnational level: improving long-range accessibility and quality of public transport; promote better and transparent costs information, and at a national, regional and local level: improve travel information especially on behalf of the destinations; attractive regional and local public transport system; packages combining touristic products; cooperation between transport and tourism actors.

...and the last mile accessibility

These recommendations have been made mainly regarding two challenges: the last-mile public transport accessibility between the train stations in the valleys and the high altitude resorts; as well as the possibilities of individual routes by public transport in the destinations.

The current priority of the WG "Transport" to coordinated Information

The Working Group aims at thoroughly studying the issue of coordinated transport information for the larger public and defining a system of transnational exchange of standardized data all over the Alps.

In June 2012, the ETC-project AlInfoNet has been approved by the Alpine-Space-Programme. Under the leadership of the Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology, the project elaborates a strategy for the dissemination of public transport information and integrates existing information systems with a sustainable mobility information network (AlInfoNet). With the involvement of technical and political key actors from transport, tourism and environment, it is envisaged to solve technical and political obstacles on the way to the implementation of AlInfoNet in several pilot regions to achieve long-lasting results. The project involves 13 partners of 5 Alpine countries, as well as a number of observers. It also involves consistent budgets and intends to enhance non- or less- polluting means of transport as a part of the Alpine mobility, especially in the field of tourism.

www.alpine-space.eu/projects/projects/detail/AlInfoNet/show/#project_partner

The main focus of this project is the provision of smart, reliable and non-discriminatory transnational information about sustainable mobility offers to, from and within the Alps. By capitalizing existing regional and national information systems for a cross-border approach, the project will develop a transnational sustainable mobility information network. Therefore, it tackles and coordinates the technical and political interoperability and harmonisation of selected existing information systems (from tourism and the transport sector) and a smart distribution of sustainable mobility information to travellers. Actors from tourism and the transport sector are actively involved in the project from the beginning to guarantee a convenient development and sustainable implementation of the sustainable mobility information network. The project aims at facilitating the access to public transport by improving the quality of information services to initiate a behavioural change in travellers and to increase the usage of public transport by tourists and inhabitants.

The use of motor vehicles in the Alps

A study of the Permanent Secretariat (Permanent Secretariat of the Alpine Convention, 2011) analyses the current use of motor vehicles in the Alps.

On the basis of the Art. 15 (2) of the Tourism Protocol, Contracting Parties undertake to limit as far as possible and, if necessary, prohibit sporting activities using motorised vehicles outside areas designated by competent bodies.

Furthermore, the Contracting Parties undertake to limit as far as possible and, if necessary, prohibit landing by air outside of airfields for the purpose of sporting activities (Art. 16).

In general, none of the Contracting Parties have so far issued specific provisions related solely to the area of the Alpine Convention. Moreover, although certain activities carried out in sensitive areas (i.e. high mountains) are specifically regulated, these areas represent only a part of the Alpine Convention's territory.

With regard to the Art. 15 of the Tourism Protocol it should be noted that, according to national legislations, events that foresee the use of motorized vehicles are not banned but need notice or authorization. The practice of motorized sports (land/air) in areas subject to legal protection is generally subject to limitations that may vary on the basis of the function and the degree of protection. In general, distinction is made between central and peripheral zones of protected areas.

The types of restrictions applied to motor sports outside the protected areas vary considerably.

Slovenia and France apply very strict limits. Although in Slovenia the rule only concerns motor vehicles with 2 or 4 wheels, they are basically banned off-road. Even larger is the scope of the French legislation, which extends the off-road driving ban to all motor vehicles. Some Austrian Länder also have statutory provisions relating to areas of particular landscape or ecological interest and/or to single vehicles, which sometimes even go beyond the limits set in Article 15 (2). Italy seems to be committed to the implementation of policies complying Art. 15 (2).

With regard to flights for recreational purposes, information received by the Contracting Parties does not allow to draw conclusions, particularly because the concerned legislation, in general, does not consider the specific issues of the Alps. However, taking into account certain areas and endangered animal species, in the regulations in force at regional or local level heli-skiing, off-track landings and takeoffs are often limited or prohibited. Heli-skiing is in some areas (i.e. Aosta valley, Interlaken etc.) a stable component of the local tourist offer. However it is not specified whether landings and takeoffs occur on authorized areas or outside. The compatibility of this practice with the Tourism Protocol should be further investigated.

Summarizing, the exam of legal frameworks in the

Alpine States regarding motorized sports gave a very heterogeneous picture. Motorized sports, however, seem to be a problem almost everywhere, that is probably connected to an heterogeneous application of the aforementioned provisions.

C.2.3 TOURISM AND CLIMATE CHANGE IN THE ALPS

The Alpine region is extremely vulnerable to climate change but the local conditions are very different across the region in terms of expected changes in climate, tourism typology and intensity, and capacity to adapt, making it impossible to envisage a single way to tackle the issue (Balbi et al., 2011).

Tourists cause 4.4% of global CO₂ emissions. For the planet these emissions are projected to grow at an average rate of 3.2% per year up to 2035 (Peeters & Dubois, 2010). Mitigation and adaptation are strongly interconnected issues, especially for Alpine tourism.

The Climate Action Plan of the Alpine Convention

The Xth Alpine Conference held in March 2009 in Evian adopted an Action Plan on Climate Change in the Alps.

It contains some mitigation and adaptation strategies regarding tourism and transport.

Mitigation strategies

The objectives are to reduce CO₂ emissions produced by tourist activities and ensure travel professionals offer the option of sustainable transports and to promote Alpine holiday's offers that are "climate neutral".

The measures foreseen for tourism are:

- start regular environmental audit of tourism destinations containing a "carbon report" and refer to this audit when granting authorisations and/or public subsidies;
- promote soft mobility for reaching tourist sites by favouring the least polluting means of transportation (adapted rates, using aerial lifts such as cable cars to go from the valleys to the nearby resorts);
- develop together with transport operators the "last mile" connection and long-distance access to tourist sites using railways;
- favour the rehabilitation of real estate aimed at tourists by adapting it to climate change instead of building new infrastructures which generate "empty beds" (tourist beds that remain unoccupied for most of the year);
- adapt the resorts' communication and marketing strategies to reflect the new measures;

- develop cross-border public transports and simplify tariff offers for tourist in the Alps;
- ensure that travel and tourism professionals together develop practical information on the soft mobility options that are available in different Alpine sites and make it accessible to the general public;
- harmonise school holidays calendars in order to limit peak season and the development of infrastructures.

Adaptation strategies

The measures foreseen for tourism are:

- supervise the construction of tourist infrastructures in glaciated and wilderness areas;
- combine investment of public funds in snow-making equipment with the assessment of the consequences of such techniques on the environment and direct public

funds towards other alternatives;

- support local authorities which diversify their activities and offer an alternative to Alpine skiing in winter. Spread the information in order to attract new customers;
- aim at a better complementary between summer and winter tourist seasons by favouring inter-seasonal tourism;
- favour the pooling between a mountain tourist resort and its surrounding territory (valley, mountain range etc.);
- support the rehabilitation of existing dwellings.

Adapting to the increased risk of natural hazard is an imperative task that already affects the Alpine region beyond the point of view of tourism. However, the tourism sector could significantly contribute to this purpose. The Adapt Alp project identified the ten most significant actions required at this time to prepare for the risks caused by global warming in the Alps (Adapt, Alp 2011).

Example of good practice: climate change adaptation

A survey conducted as part of the ClimAlpTour project has shown that tourist have a great interest in obtaining more information about climate change in the Alps. The village of Grainau below the highest German mountain Zugspitze has therefore developed an experience trail informing visitors about "climate change and water" in the area. The round trip trail consists of 9 stations dealing with different aspects of climate change and adaptation, such as flora, glaciers, protective forest, wood composition, water supply, permafrost, natural hazards and spruce living conditions.



For each station there are additional audio or video explanations which can be downloaded for free on smart phones (klimawandel-grainau.de). For example, a 3D simulation of a mega rock fall caused by a warm period about 3500 years ago and the unfreezing of the permafrost of the summit of Zugspitze explains the formation of the landscape and lake Eibsee below the Zugspitze massif.

The new trail, opened in September 2012, deals with two aspects of climate change adaptation: firstly, it is a new all-season attraction which is not dependent on snow in winter, and thus a product adaptation itself which meets existing guests' information needs. Secondly, it is an entertaining way of informing visitors and local residents about the most important aspects of regional climate change and natural adaptation processes as well as anthropogenic adaptation needs.

Figure 1: Mobile phone audio and video guide

C.2.4 TOURISM AND PROTECTED AREAS

C.2.4.1 PROTECTED AREAS – A STRONG REGIONAL TOOL FOR SUSTAINABLE TOURISM DEVELOPMENT

From the point of view of tourism, the Alps, by blending tourism and nature, represent the best source of inspiration for the development of sustainable tourism development taking nature protection into account. On the one hand, the concept of nature protection needs the acceptance and the comprehension of the public and on the other hand, tourism uses nature as a natural resource which generates revenue.

Across the Alpine countries, at national and regional level there are 7 different levels of protection: national parks, biosphere reserves, geological reserves and World heritage reserves (UNESCO), regional nature parks, nature reserves and areas with particular protections (as for examples landscape reserves in Germany). These different protection statuses contain special objectives depending on the Alpine country. For example, the Austrian natural parks, the Swiss and French regional nature parks as well as some of the newly established national parks and the surrounding regions of the French national parks ("buffer zones") shall contribute

to strengthen the regional development which also includes the sustainable tourism development in protected areas and their environment (In French national parks and as well the Austrian National Park "Hohe Tauern" is the core zone in general not inhabited, while the buffer zone is inhabited with a sustainable agriculture and as well as nature and cultural heritage protection).

Protected areas, with their generally high biodiversity (large number of special habitats and species) and their characteristic landscapes, as well their quite high cultural heritage relevance, are bound to help the development of eco-tourism and a sustainable local development.

Tourism is a possibility for protected areas to get higher recognition through the development of new regional value-added chains, regional models and regional marketing initiatives. They are on the one hand strengthening tourism offers by giving new impulses, on the other hand they promote local economic development by creating new job opportunities and stimulating the establishment of new accommodation opportunities in rural areas. The cooperation between protected areas and local and regional tourist operators is important to successfully turn protected areas into tourist attraction by joint offers and communication, marketing campaigns, common web presence, combined information centre and events.

Examples of good practice

There are several well-known good practices examples of tourist attractions in Alpine protected areas. In the Western Alps the „Briançonnais“ area with the Ècrins National Park (F) (www.ecrins-parcnational.fr) and the area of the Grand Paradiso National Park in the Aosta Valley and Piedmont (I) (www.pngp.it) with the Grand Paradis Foundation (www.grand-paradis.it) created expressly for promoting sustainable tourism in the Aosta Valley part of the National Park, are worth mentioning.

In the Central and Eastern Alps, the natural parks of South Tyrol (I) (www.provinz.bz.it/natur/2803/vr/index_i.html), the protected area in Steiermark (A) (www.steiermark.com/naturparke/de/naturparke) and the UNESCO Biosphere reserve Entlebuch (CH) (www.biosphaere.ch/de/welcome.cfm) are other good practices where Alpine protected areas use methods of sustainable tourism as a regional development tool to protect nature and the landscape



Figure 2: Snow-hiking in the Ècrins National Park (F), Claude Dautrey
© Parc national des Ècrins

and at the same time to bring forward the local culture and local economy. Triglav National Park (SI) (www.tnp.si/images/uploads/NA_OBISKU_sloang_jan2011.pdf), the the Regional Park Skocjanske Jame (SI) (www.park-skocjanske-jame.si/eng/tourist_centershtml) and the National Park Berchtesgaden (D) (www.nationalpark-berchtesgaden.de/english/index.htm) decided to focus on raising tourists' awareness: information centres, education trails, guided tours and excursions on nature protection, and a management of visitor movements.

All these Parks and organisations strive to reduce the

environmental impact of the intensive tourism.

This kind of sustainable tourism development can be reached by an efficient legislative regulation at international, national and regional level as well as by promoting awareness rising activities addressing protected areas tourism (e.g. promotion campaign national nature landscapes in Germany, www.nationale-naturlandschaften.com). Smaller parks such as the Chartreuse regional nature park (F) have developed interesting tourism oriented concepts, which are more often known at regional level. An example of good practice regarding the cooperation between a tourism destination and an Alpine protected area is the Swiss National Park, created in cooperation with the protected area Biosfera Val Mustair and the tourism organisation of the region Engadin and the National park region Unterengadin/Val Mustair.

These examples are only a small selection of good practices in the Alpine region. Sustainable tourism is becoming increasingly important in the work field of Alpine protected areas and is currently one of the main objectives of regional development and nature protection. Every Alpine protected area tries to elaborate its overall concepts regarding the development of the region into an attractive and sustainable eco-tourism destination.

Hohe Tauern National Park (A)

The Hohe Tauern mountains, which are part of the largest national park in the Alpine region, have become a model of sustainable tourism. In 2009, the Länder Carinthia, Salzburg and Tyrol – together with their municipalities within the national park as well as the Großglockner Hochalpenstraßen AG and different marketing units - developed a joint trademark: Hohe Tauern - Die Nationalpark-Region (Hohe Tauern – the national park region).

A strong trade mark with strong content

Together, the Länder and their partners have succeeded in making the Hohe Tauern a tourist trademark. The trademark rests on five so-called “lighthouses”, the natural assets within the Alpine region: the Großglockner mountain with the Großglockner Hochalpenstraße (high Alpine road), Alpine pasture management, national park rangers, waterfalls and the winter magic.

With its expressly “green” tourist offers, the Hohe Tauern national park puts nature protection - as this is definitely a unique natural and cultural landscape - as well as respectful behaviour which should go along with it - at the centre of its activities. With the Großglockner high Alpine road, almost a million nature lovers and people with an interest in the Alpine region have access to the unique mountain world of the Hohe Tauern. Apart from comfortable and eco-friendly travel solutions to the different destinations – such as the all-inclusive ticket for tourists in cooperation with the German Railways and the station shuttle service – bus services are available specifically for walkers, ready to take them to more than 30 destinations seven days a week, perfectly coordinated with the wide range of tourist adventure programmes in the national park region.

Together on the web

Individual excursions such as wildlife (game) observations and guided tours with NP rangers can be booked via a shared internet platform (www.hohetauern.info), the same applies to glacier safaris, geotrails or e-bike tours. Furthermore, it is



Figure 3: Großglockner High Alpine road © GROHAG



Figure 4: Großglockner Ibex © GROHAG

possible to enjoy innovative package offers such as multi-day trekking and Alpine tours or horse riding trips.

Strong partners

Beside thriving for cooperation between the tourist associations, the people in charge of the national park and the managers of accommodation establishments, there is also good cooperation with the restaurant owners: "0-km meals", all prepared with locally grown produce, ensuring that the culinary experience of the region is also a sustainable one.

A possibility for protected areas in the Alps to become better known as tourist destinations is to apply for the European Charter for sustainable development in protected areas (see below). This charter is a partnership between protected areas and its tourism stakeholders. In the Alpine region, there are already several parks identified as a EUROPARC region, for example the Triglav National park in Slovenia, different French regional parks as Bauges, Queyras and Vercors, the Berchtesgaden National Park in Germany, the Italian Parks of the Maritime Alps, Adamello-Brenta and Adamello and Austrian National parks as Gesäuse, Hohe Tauern and Kalkalpen (reporting on Habitat Directive bd.eionet.europa.eu/article_17/chapter4).



Figure 5: Horse riding in the National Park Hohe Tauern (A), Schreiner © Nationalpark Hohe Tauern Kärnten

The Chartreuse regional nature park (F)

In the Chartreuse Regional Nature Park, for example, a discovery journey was developed, combining farmers, artisans and cultural actors. The cooperativeness of the different local stakeholders enables the tourists to understand the local production, tradition and region-related way of life. This project is the answer to the objective of economic enhancement, stated in the park's Charta, concerning tourist development and the creation of a coherent sustainable tourist offer.

The nature information centre "Mountain world Karwendel" (D)

At 2,244m near the mountain station of the Karwendel cable car (Mittenwald, Bavaria) a nature information centre gives a comprehensive overview of nature in high mountain areas. Stories about survival strategies in long winter periods, but also during hot and dry weeks in summer help tourists understand the high vulnerability of mountain ecosystems. A short walking trail around a depression caused by karst formation allows visitors to enjoy the high mountain flora and fauna and spectacular panoramic views. The information centre is a benchmark of how to combine environmental education with a guided touristic experience.

European Charter for Sustainable Tourism in Protected Areas

The European Charter for Sustainable Tourism in Protected Areas is a practical management tool that enables protected areas to develop tourism sustainably. The core element of the Charter is working in partnership with all relevant stakeholders to develop a common sustainable tourism strategy and an action plan on the basis of a thorough situation analysis. The aim of all Charter projects and activities is the protection of the natural and cultural heritage and the continuous improvement of tourism in protected areas in terms of the environment, local population and businesses as well as visitors.

C.2.4.2 PROTECTED AREAS AS INNOVATIVE STAKEHOLDERS: ACTIONS AND INNOVATIONS

The examples show, from a tourism perspective, that Alpine protected areas are in perfect adequacy with the new expectations on mountain tourism: the need of wild nature and protected landscapes, a refusal of the logic where everything is commercial, a facilitated and guided access to natural areas, the practice of sports, the chance to meet the local population, taking care of the physiological well-being and the spiritual resourcing and the quality of the stay.

Nevertheless, it is important to consider also the negative influence of tourism on nature. Nature and wilderness in the Alps are a tourist resource, but it is endangered through an abusive and unplanned use, which can be prevented by visitor management, an adequate spatial planning for tourism purposes and awareness raising activities.

In synergy with the recommendations of the most important environment protection organisations, the tourism offers in protected areas finally testify the reconciliation of interests between tourism and environmental protection and demonstrate that prohibitions alone are not the best option for succeeding. These should be implemented alongside a strategy of moderate opening and appropriate information for visitors.

C.2.4.3 THE NETWORK OF ALPINE PROTECTED AREAS—ALPARC

The Alpine Network of Protected Areas (ALPARC), created in 1995, allows for an intensive exchange between Alpine parks involving also institutions of nature protection and scientists.

The main goal of ALPARC is the implementation of the Protocol of the Alpine Convention on “Nature conservation and landscape management”, through the creation of an ecological continuum (article 12 of the Protocol), which will help to conserve the outstanding biodiversity in the Alps in the long term and will facilitate species migrations within the Alps and to/from neighbouring mountain ranges.

In 2006, the Alpine Convention set up a specific Working Group to examine the issue of an ecological network. ALPARC, together with other international partners (CIPRA, the International Scientific Committee on Research in the Alps (ISCAR), WWF), are actively contributing to this process.

ALPARC is a network, created so as to be able to carry out joint projects, discuss technical issues, assess the effectiveness of management methods and organise professional meetings and events on a range of subjects, from wildlife management to climate change issues.

D. THE SITUATION OF TOURISM IN THE ALPINE AREA

The Alps represent one of the oldest tourist regions worldwide and the largest recreational area in Central Europe. Visitors started to come regularly to the Alps at the end of the 19th century, mainly in the summertime.

After World War II improvements in technology, medicine and the social system led to a general change of the framework conditions of Alpine tourism. The economic growth in Europe, higher income also for the working class, legislation ensuring holiday entitlement, individual mass mobility by low-priced cars and a high quality road infrastructure all contributed to make the Alps a destination for nearly everybody. Also Alpine regions, which were not connected to the source markets before, could benefit from the railway system. Peripheral Alpine valleys and their small towns entered the market, many farmers offered accommodation and food to improve the still low income and overcome poverty. Many new health destinations entered the market because of the introduction of cure subsidised by the public sector, others had to adapt their products because of advances in medicine and the improvement of hygienic standards in the metropolises.

Mountains have always been seen as different because of their geography and their relative "remoteness" in comparison with lowland regions. It was a handicap at first for those regions that experienced interest from the lowlands but became progressively an asset with the development of transport, the growing globalization and the boom of tourism. The landscapes, the "naturalness" and spiritual value of the environment and the slopes were the first Alpine attractions that brought people from the urbanised lowlands to come to the Alps and contemplate spectacular panoramas, enjoy a different environment and practice activities they could not do at home. Their early role as a tourist destination contributed to forge the Alps as a model of mountain tourism that influenced the development of other mountain ranges (Debarbieux, 2001). Today, Alpine tourism faces a paradox. The Alps are seen as the guardians of a pristine environment but must provide the necessary and high-quality infrastructures expected by tourists. This tension between conservation and development continues to influence the position of the Alps on the international tourism market, with the urge to preserve their specificities that attract tourists, mainly based on the landscapes and the environment, and the temptation to develop their territory and follow the trends in terms of economic and social standards.

The following paragraphs explain the available data on tourism at Alpine level and give an overall picture of the current economic development of tourism in the Alps.

In the mid seventies the tourism industry started offering new types of holiday products by combining cheap flights and accommodation in the Mediterranean. Tour operators and travel agencies in the metropolises and cities started competing on price and performance for what concerned their summer products and services. High investments in new destinations lead to modern, standardized and therefore – in the eyes of the consumers - reliable offers. This process is still ongoing today. Even though in the winter season holidays in warmer regions are popular amongst the majority of consumers, today the largest source of winter tourism comes from Germany, one fourth of them choose the Alps as their holiday destination.

Changes of framework conditions or consumer preferences are not new for tourism trends in the Alps. Such framework conditions cannot be influenced by the tourism actors in the Alps alone and changes will probably continue in the future. A scenario based SWOT analysis allows to identify the strengths and weaknesses of the main types of Alpine tourism as well as opportunities and threats. This analysis shows also the need for adaptation strategies (see chapter E "The Challenges of Alpine tourism regarding driving forces").

D.1. THE DIVERSITY OF ALPINE TOURISM

The success of the Alps as one of the leading destinations in the world tourism market is strongly due to their high diversity. Very different tourism offers cover the demand of several consumer groups with their specific motivations throughout the year. The core reason for this success is the enormous diversity of regional resources and thereby also the cultural heritage of the Alpine region.

D.1.1 HIGH DIVERSITY OF REGIONAL CONDITIONS LEADING TO A VARIETY OF TOURISM

In a mountainous region such as the Alps, a critical constraint on the potential development of facilities for tourism – as well as other economic activities – is the availability of land which is suitable for the construction of accommodations, as well as other elements of settlements. This has led to the development of the concept of defining the potentially settleable area (PSA). This area is mainly along valley beds

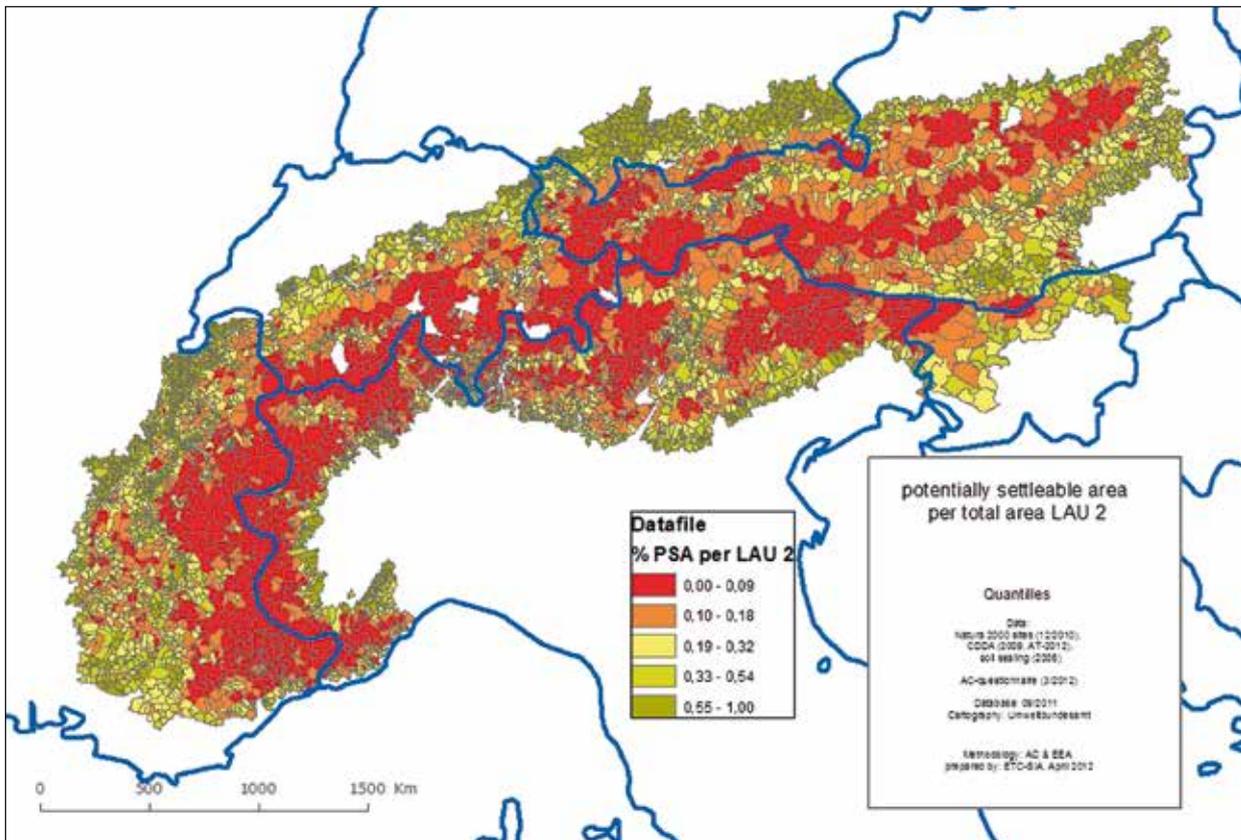


Figure 6: Proportion of potentially settleable area within each municipality

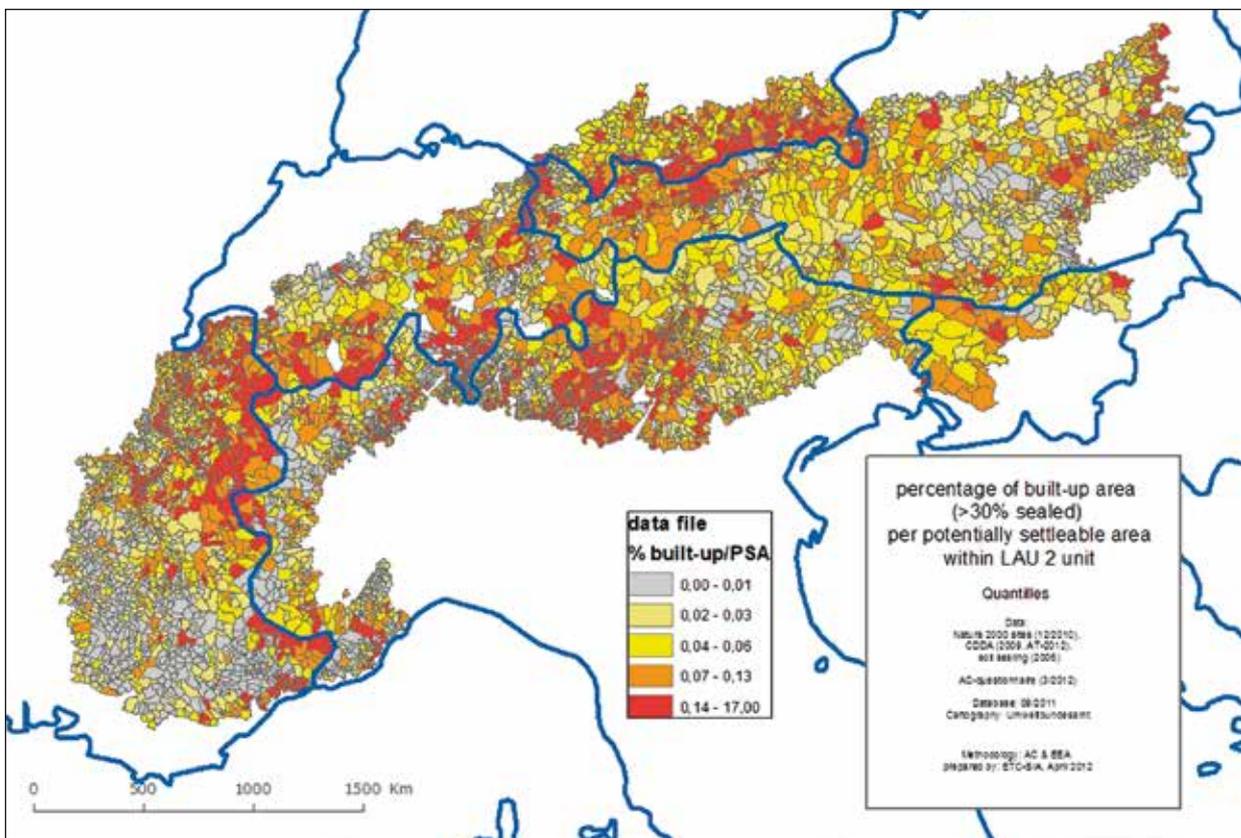


Figure 7: Built up area as a proportion of potentially settleable area within each municipality

and on gentle slopes. There is no standard way to define the respective area across the Alpine countries; each has its own definitions and regulations. In order to present a first approximation based on consistent criteria, two classes from the 2006 CORINE Database were combined: “artificial areas” and “agricultural areas”. The resulting map (Figure 6) clearly shows the difference between the major valleys (e.g. Adige, Dora Baltea, Inn, Mürz, Rhine, Rhone, Salzach) and the valleys of their tributaries.

Municipalities across large parts of the Alps have less than 10% of their area as PSA and they can be compared with the rough terrain at higher altitudes.

Very few national boundaries are clearly evident; an exception is the one between Carinthia (Austria) and Slovenia along the Drava river.

While Figure 6 shows the proportion of each municipality area that could be potentially available for the construction of accommodation and other aspects of settlements, significant parts of the PSA across the Alps continue to be used for agriculture, forestry, or other land uses. Thus, to obtain a clearer picture of the proportion of PSA on which infrastructure has actually been developed, a further analysis was made, calculating the proportion of the PSA in each municipality that has been built up. For this purpose, the soil sealing database of the GMES (Global Monitoring for Environment and Security) was used.

The next map (Figure 7) shows some clear patterns, despite the overall diversity of situations across the Alps. While the proportion of built-up area in relation to PSA is never more than 17% of a municipality, high levels of built up areas can be seen in three major contexts.

First, in major ski resorts, where the PSA is relatively low (often below 10%): those of the Maritimes Alps, Haute Savoie and Savoie (F), Valais and Ticino (CH), are clearly visible and generally occupy greater proportions of land than those in Austria or Italy, though there are exceptions, such as Gastein and St. Anton (A).

Second: in major urban centres, such as Bled (SI), Innsbruck, Klagenfurt, Salzburg, and Villach (A) Trento (I) where the PSA can represent more than half of the total land area.

Third: extensive areas in Trentino-Alto Adige/South Tyrol (I) and southern Bavaria (D).

On the other hand, the Alpine biogeographical Region (even if this biogeographical region does not only cover the Alps) is the region with the highest percentage of habitat types protected under the EU Habitat Directive where the conservation status was assessed as “favourable” by the reports on the implementation of this directive. 30% of habitat types are in good state, while the rest is not in a good state. Nevertheless, in comparison to other biogeographical regions, this is relatively good although not

satisfactory (reporting on Habitat Directive, www.bd.eino.chapter4).

“The region with the highest percentage of the habitats where the conservation status was assessed as “favourable” is the Alpine region. The Alpine biogeographical region is spread across five geographical areas and includes several European mountain ranges. The human pressures in mountainous areas are typically lower than elsewhere and these areas usually have a long history of protected areas, including national parks and nature reserves. However, for species, the situation in the Alpine region is not very different to the other regions. forum.eionet.europa.eu/x_habitat-art17report/library/papers_technical/overview_conservation_1.

D.1.2 GEOGRAPHICAL STRUCTURE/LOCATIONS AND DESTINATIONS IN THE ALPS

Around two-third of **Austria’s** surface area is covered by the Alps (Statistics Austria). Concerning the effects the Alps have on tourism, it suffice to say that around three quarter of the overnights in hotels and similar category have been generated in this area over the last years.

In winter and in summer 9 of the 10 top destinations (concerning overnights) are situated in the Alps. In both season Vienna is at first place (not in the Alps).

Referring to the analysis of T-MONA, Austria’s guest monitoring system, which is based on surveys on travel behaviour and socio-demographic data among domestic and foreign tourists in Austria, the main reasons for travelling to the selected destinations in Austria are the following:

Summer 2011:	Winter 2011/2012:
63% landscape and nature	69% mountains
51% mountains	56% attractiveness of the ski area
48% tranquillity	42% snow certainty
45% hospitality	39% landscape and nature
37% good air/healthy climate	37% good experience in the past

Figure 8: Main reasons for travelling to the selected destination in Austria (% of all guests, multiple answers possible; Source: Austrian National Tourism Organization, T-MONA, *Urlauber Sommer 2011; Urlauber Winter 2011/2012*)

France counts for 21% of the territory of the Alpine Convention, but only 7% of the whole French territory is Alpine. The Alps represent 78% of the whole mountain tourism overnights during the winter season, and 48% out of winter sports. The Alpine tourism stations employ between 20% and 25% of the total mountain tourism employments of

the Alps. The French Alpine account of skier days is about 55 millions, like Austria, and 7 out of 20 of the most frequented stations in the world are in the north of the French Alps: La Plagne, les Arcs, les Trois Vallées (the biggest interconnected skiing area), l'Alpe d'Huez, Val Thorens, Les Menuires, Tignes. In the summer season, hiking in the Alps represents 27% of the whole hike frequentation in France, especially in the three national parks (Vanoise, Ecrins, Mercantour) and there are a lot of highly frequented tourist sites in the Alps, especially around Chamonix (Mer de glace of Mont Blanc, Aiguille du Midi, Brévent).

The Alpine Tourism is an important column of tourism in **Bavaria/Germany**. It concerns 10 districts and 3 towns which are independent from district administrations in the regions of Swabia and Upper Bavaria along the German Alpine string and part of the perimeter of the Alpine Convention. Bavaria is an all-year-round travel destination. Around 60% of the overnights in Bavaria take place during the summer (May – October), 40% in winter (November – April). Important segments of the overnight stays as well as of same-day journeys in the Alpine areas are connected to nature and active tourism (especially hiking, biking, winter sports), health and wellness tourism as well as cultural tourism. However, conferences and event tourism are also an important part.

Due to the small scale of the tourism sector in the German Alpine region, tourism initially tended to be organised by each single resort. An evolution has taken place over the last two decades, resulting in the arising of more efficient destination marketing and management organisations, e.g. for the Berchtesgadener Land, the Chiemsee region or the Ammergau Alps. In Allgäu, a very efficient umbrella organisation has been founded, Allgäu Marketing.

In Trentino – Alto Adige/South Tyrol the highest number of overnight stays among the **Italian Alpine Regions** was recorded in 2010: furthermore, their tourist destinations hosted 44.4% of the Italians' mountain holidays, followed by Lombardia (10.5%), Veneto (7.9%), Piemonte (6.3%) (ONT, 2011). The main criteria in the choice of an Italian mountain destination, according to the "Report on Tourism 2011" by ONT, are the opportunities of practicing winter sports (in particular skiing) and the price/quality ratio; contextually the attention of tourist destinations and entrepreneurs to sustainable tourist offers is growing, namely linked to the adoption of long-term-perspective policies aiming at positive environmental and socio-cultural outcomes (CISSET, 2011). The natural heritage is the main criteria for choosing a holiday destination: it is the reason moving 35.8% Italians to the Italian mountain destinations, followed by mainly practical reasons such as the availability of holiday-homes (16.5%), the hospitality of friends and

relatives (12.9%), the proximity to the living place (7.2%) and the faithfulness to a particular accommodation (7%) (Skipass, 2011).

During the past few years a severe reduction in the number of people skiing has been recorded, only partially counterbalanced by the new customer base coming from Eastern European Countries. Furthermore, most of the small Alpine and pre-Alpine centres participate only marginally to the winter tourist development (ONT, 2008), being situated at low altitudes, with small ski-domains and old facilities; mainly they consist of destinations in which facilities are generally co-financed by the Public Administrations in order to favour seasonal tourism (Tamborini, 2006). Their location often not far from the main urban centres, could allow for the development of niche products through a strong specialisation toward specific segments of demand.

In this way small destinations could offer targeted services and facilities for different types of consumers (e.g. families, snowboarders etc.) and compensate with qualification and specialization the impossibility of satisfying the whole spectrum of demand (Tamborini, 2006).

The mountainous areas of **Liechtenstein** were traditionally exploited for summer cattle. Therefore, the only buildings at higher altitudes were small hamlets and a few houses for the shepherds. The development of Alpine tourism started around 1900, when some of the houses were hired out to tourists who enjoyed the areas in summer for hiking. Tourism however, became more important with the construction of ski lifts in Malbun in 1968. They boosted the advancement of winter and summer tourism to the state it is today. The Alps cover 100% of the country area. Summer tourists like this area mainly for leisure, nature and landscapes. It includes relaxing easy walks to challenging hikes on different mountain peaks. Winter tourists mainly visit Malbun for downhill and cross-country skiing, sledging and snow shoe hiking. The second most popular destination in Liechtenstein is situated in the river Rhine valley, the capital Vaduz. In this area, most tourists are day visitors or business travellers. Nevertheless, there are no top destinations with mass tourism in Liechtenstein. The key idea of tourism is a recreational aspect that can only be provided as long as mass tourism is avoided.

The Julian Alps and the Kamnik-Savinja Alps are among the most beautiful parts of **Slovenia**. Tourists often visit Lake Bled and Bohinj, Blejski Vintgar and the River Radovna. The Julian Alps are also home to the Soča Valley, which was the first destination in Slovenia awarded with EDEN status (European destinations of excellence: see chapter F.2.6 Contests). Another such destination is Solčavsko in the Kamnik-Savinja Alps. Favorite tourist destinations are also Kranjska Gora and Bovec, which offer numerous outdoor pursuits, and the towns of Kranj and Škofja Loka. In

Slovenia there are 796 ha of ski slopes and 226 ski railways. Only 16% of ski resorts have more than five ski railways and more than 5 km of ski slopes.

In **Switzerland**, the Alps (seen as the territory included in the Alpine Convention perimeter) cover around 60% of the territory. The Swiss Alpine regions are of great importance to Swiss tourism: they include many famous destinations and resorts, as well as infrastructures required for tourism development (such as slopes, railways, accommodations etc.). Together, the Alpine regions accounted for around half of the total overnight stays in Switzerland in 2010 (according to data from the Swiss Federal Statistical Office). Tourist peak season in the Swiss Alps are usually during the winter season and during the summer. The top two sport activities linked to tourism in Switzerland are hiking in both seasons and skiing in winter, two activities which the mountains are particularly well equipped for. The image of Switzerland is closely linked to mountains and Alpine landscapes, in particular the Matterhorn/Cervino, that is one of the main symbols of the country.

D.1.3 INTENSE TOURISM AND SOFT TOURISM DIFFERENTIATION AND IMPACT

No common definition of intense or mass tourism currently exists. Neither the World Tourism Organization (UNWTO) nor the World Travel and Tourism Council (WTTC) propose a clear definition.

Some sources attempt a description by referring to the relation with the boom of leisure tourism in the 1960s and 70s in the Mediterranean. Others refer to it by describing the tourist mind frame as being passive, lacking preparation, always in a hurry or with no interest in local customs. Furthermore, some definitions tend to list the symptoms in supposedly affected areas such as large constructions (building structures), shopping areas, foreign languages, noise or garbage.

If one can agree with the imprecise definition that mass tourism is the act of visiting a destination with large amounts of people at one time, it is clear that it could only have developed with the improvements in technology, allowing the transport of large numbers of people in a short space of time to places of leisure and interest.

In few parts of the Alps we face intense tourism with its negative impacts: overcrowded infrastructures, heavy seasonal peaks, pressure on landscape, natural resources, as well as on social and cultural heritage. Due to these negative effects, this kind of tourism is not well perceived by the local population. While many examples exist for alternative forms of tourism as opposed to a mass phenomenon (e.g.

eco-tourism, responsible tourism), no one appears to have engaged in finding a clear explanation of how these new forms should differ. When taking a closer look at those alternative forms of tourism, it becomes obvious that each one of them can potentially produce the same or even worse effects than mass tourism – it only depends on the relative or absolute numbers of participants.

Intense tourism per se is not necessarily negative. If limits, given by carrying capacities – in ecological, social and economic aspects – and “limits of acceptable change” are respected. Nevertheless, it must be taken into account that there are no absolute indicators to measure the impacts of tourism activity. In this case, instead of relying only on concrete quantitative facts and figures, it is crucial to consider a certain qualitative aspect, especially when attempting to define what mass tourism.

In fact, in this framework, there are two issues that the sustainable development of Alpine tourism has to face:

- the 10% of the municipalities and their territories that rely heavily on (mostly in winter) tourism need to prevent, reduce and/or compensate for the impact generated by tourist infrastructures and make their operation sustainable. The preventive measures contained in the Tourism Protocol, the existing regulations and the proactive policies of most such municipalities are geared to that effect;
- most of the Alpine areas and their communities are, by nature or by political will, centred around extensive (mostly summer) tourism. In their case, the challenge is to make social and economic development and employment possible at local level, through a carefully planned enhancement of their strengths, the regulation and organisation of such enhancement, innovation, diversification, quality and authenticity. The Tourism Protocol’s “dynamic” guidelines are devoted to these objectives.

To sum up, sustainability should be the aim of intense tourism as well as of all tourism types, being aware that it is much more difficult for mass tourism destinations to reach a rather sustainable status.

D.1.4 LARGE EVENTS IN THE ALPS

One important aspect of Alpine tourism are winter sport events. Mega-events are large scale, appealing to a wide range of people and are internationally interesting and include a certain number of participating nations (Baum & Lockstone, 2007). Most attention attract events associated to be mega-sport events in the Alps as e.g. the Olympic Winter Games and the World Ski Championship. These events can have impacts on the environment, the society and the economy, however, also infrastructure, political

aspects, image/brand aspects and sport should be taken into consideration (Chappelet & Junod, 2006; Cornelissen et al., 2011).

Possible impacts and legacies of big winter sport events

Impacts of sport events can be positive and negative and can be classified into short-term and long-term impacts.

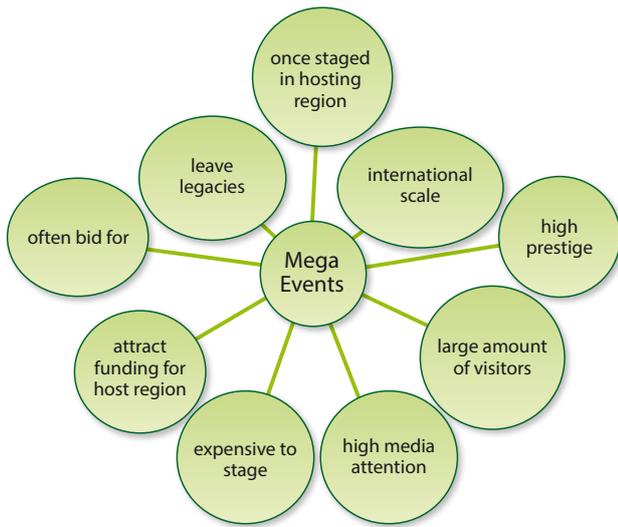


Figure 9: Characteristics of Mega Events. Source: Schmied, 2012, referring to Masterman, 2004

Impacts on the hosting region's environment

Major fields of environmental impacts of sport events are climate, traffic, energy, waste, water and wastewater, nature/landscape and noise (Cornelissen et al., 2011; Schmied et al. 2007; Wilts, 2005).

The global climate is mainly affected by greenhouse gas emissions, which arise from the transportation to and from the event venue. Thus for instance 154 large sport events that took place in Germany in 2005 produced 300,000 tonnes of greenhouse gases equivalent to the effect of the electricity consumption of 140,000 households (Schmied et al., 2007). Waste is a short-term consequence of large events and is to a large extent caused by catering activities. Furthermore, give-aways, merchandising articles and flyers contribute to the waste disposed in and around the event venue. Water is an important resource and also used in great quantities during major sporting events for sanitary facilities and to produce artificial snow (Schmied et al., 2007). Mega sport events require a lot of space, not only for the sport facility itself but for parking spaces, media sites, side events and accommodation.

Positive territorial impacts could be the renovated infrastructure that would not have otherwise received investments. Renovation and construction of public transportation

facilities, sport stadiums or the water and sewage system could have been carried out in an environmentally friendlier way and this might not have happened without the staging of the event due to lack of funding (Dodouras & James, 2004; Cornelissen et al., 2011).

Impacts on the hosting region's society and culture

The social dimension is much harder to grasp and impacts on society are difficult to measure. Positive impacts of events on society and culture include the opportunity for local people and foreigners to come together, socialise and build new contacts; improved community spirit and cohesion; fostered civic pride and regional identity; enhancement of cultural traditions, self-esteem, values and attitudes; empowerment; skill development and improvements to social and health amenities (Cornelissen et al., 2011; Schulenkorf & Edwards, 2009). Additionally the attitude towards tourism and sports, the opportunity for participation, the social status of the local inhabitants, partnerships and networks, and the opportunity for action for future generations as social and cultural impact areas of mega sport events could be named (Bieger et al., 2000).

Negative impacts on society can be an increase in crime (Mihalik & Simonetta, 1999), although there is no specific reference to this in relation to Alpine mega-events.

Sport as such might also be an area of impact. The exposure of the sport during a mega sporting event and the media attention it receives may cause a rise in the number of followers or people who practice the sport. Additionally, the sporting legacy refers to the renovated or newly erected sport facilities that can be used after the event (Chappelet & Junod, 2006; Masterman, 2004). This does not refer to all sport facilities, as e.g. ski jumps and bob runs are hardly used by the wider public.

As far as the political development is concerned, the staging of a successful mega sport event could work as an example for "good governance", so contribute to an "improved profile of government" and political processes "at national and international level" (Masterman, 2004).

Impacts on the hosting region's economy

Economic impacts and legacies are often used as justification for the event itself and the investments related to it, for example investments in infrastructure. Tangible effects as short-term impacts (e.g. entrance fees, consumption of goods and services by guests etc.), which are caused by inputs are easier to measure than economic legacies. However, the point often used as an argument is the after-usage of renewed or newly built infrastructure and facilities and the tourism flows induced by the event (Beech & Chadwick, 2004; Masterman, 2004; Cornelissen et al., 2011) and the enhancement of the host region's attractiveness as a tourism destination, although

this effect is difficult to evaluate and thus these statements are often controversial and lacking significant proof or analysis (Chappelet & Junod, 2006). A potential increase in demand of the destination by tourists can be attributed more to the improved infrastructure than to the enhancement of the image of the destination (Teigland, 1999).

This said, the only argument that is certain is the difficulty in determining the impact of an international sports event on tourism in the long term. Pre-event tourism arrivals are often higher than predicted (Fourie & Santana-Gallego, 2011). Tourism from participating countries increases more than tourism from non-participating countries. Seasonality is another important factor: a mega sport event staged during peak season can be related to a decline in predicted tourism arrivals (crowding-out effect) while a mega sport event held during an off-season leads to an increase in tourism arrivals. In contrast, according to the “crowding out”-effect, some tourists avoid going to the event hosting region because they fear the place to be overcrowded (Chappelet & Junod, 2006). However, to really evaluate this impact, tourism flows have to be measured and the reasons for tourists visiting the region need to be evaluated over a longer period of time – which so far has not been done in any winter sport mega event in the Alps.

One non Alpine case was deeper investigated: the industrial impacts of the Olympic Winter Games of 1994 in Lillehammer were to be classified as “intermezzo”, meaning that an increase in economic activity only occurred within a short timeframe, before, during and only a short time after the games (Spilling, 1998). Long-term economic impacts are due to improved infrastructure such as sport facilities, tourist attractions and improvements within the hospitality sector (Spilling, 1998; Teiglan, 1999). There was not much dynamism in the region of Lillehammer but growth was due to reallocated resources. Therefore the substantial cost factor of the Olympic Games does not stand in any proportion with the marginal long-term impact (Spilling, 1998).

Clearly negative economic impacts, such as the lack of reuse of buildings purposely built for mega events or resource constraints, of mega sport events are discussed to a smaller extent in existing literature than the positive ones. An example hereof can be seen considering accommodation. Due to the higher demand, prices for accommodation in the hosting region rise causing, for example, regular tourists to go elsewhere; this impact is short term. A rise in prices can also influence the image of the hosting region as being relatively high priced and therefore prevent certain tourists from considering the region as a holiday destination.

D.2 THE SITUATION AND IMPACT OF TOURISM IN THE ALPS

D.2.1 THE SERVICE CHAIN APPROACH

To describe the situation where Alpine tourism is concerned, and better understand its social, economic and environmental impacts, this chapter is structured in terms of the tourism services chain. By examining the stages normally followed by a holiday-maker, the intention is to demonstrate the variety and complexity of the issues connected with tourism activities in Alpine countries. From the initial impulse to visit a given destination to the final trace a tourist might leave behind, the services chain approach has the merit of emphasising most of the internal and external factors affecting tourism-related activities. Aspects such as e.g. education, working conditions (e.g. seasonality of the labour market), development of new products, innovation, improvements are dealt in this chapter.

The global overview of Alpine tourism shows interesting elements and a comparison between the Alpine countries can help them position themselves and also learn from each other. However, a closer look shows important geographical disparities and an analysis at municipal level can give a different picture of tourism in the Alps. For this reason, some maps based on data from the municipal level have been made in the frame of this report. They are inserted and discussed in the chapter on the situation and the impacts of tourism in the Alps.

In order to deal with the various economic, social and environmental factors which can shape and influence Alpine tourism, the following elements of the tourism services chain, consisting of sub-chains are examined:

- prior information and booking;
- transport to and from the destination;
- transport in and around the destination;
- accommodation and hospitality structure;
- leisure and discovery activities;
- recommendation subsequent to the visit/holiday.

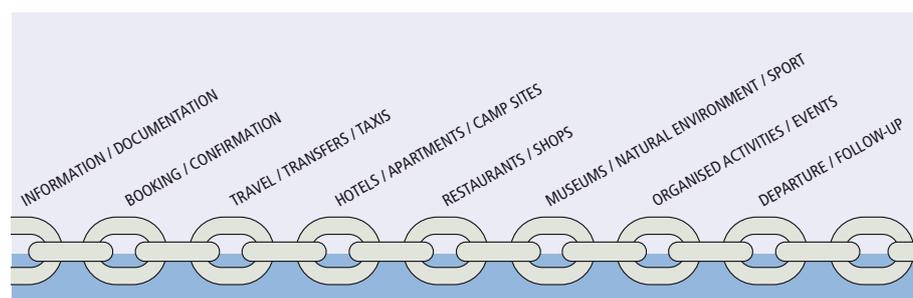


Figure 10: Principal elements of the tourism services chain (source: Nyon Région Tourisme).

By taking examples from the different Alpine regions, it is possible to illustrate both the constant factors common to the Alpine area and the national or regional peculiarities. These examples also enable to identify the issues of territory and governance underpinning tourism.

Alpine tourism is constantly facing global influences which impact (positively and negatively) on local sustainable development.

D.2.1.1 INFORMATION ON THE TRIP; BOOKING

With the take-off of new information and communication technologies (ICTs) in the final decade of the 20th century, the tourism sector has experienced a real revolution as far as the provision of information and the booking of goods and services are concerned. Without fundamentally altering the “product” itself, this great leap forward, due mainly to the rapid development of technologies and applications available via the internet, has greatly diversified the ways in which a territory is promoted and “sold”. Holiday-makers are now able to easily compare prices, services and destinations, and so benefit from increased competition and transparency. By the strong pressure to compete and innovate, tourism businesses are often facing challenges to remain profitable (e.g. price dumping). ICTs provide more information, quickly and easily accessible and booking platforms are more and more used by customers in order to book their journey.

In this respect, the Alps are not very different from seaside holiday regions or big cities. As the summary report of the Franco-Swiss Interreg IVA project on innovation in tourism (Rouard et al., 2011) points out, the customer’s increasingly influential role in the tourism purchasing cycle has resulted in a constantly changing market place, in which the consumer/actor is becoming the most important player.

From the point of view of service providers, the added value of ICTs is most apparent in the distribution and marketing sectors, enabling providers to win increased market share. In this respect, ICTs contribute to innovation in tourism, making it possible on the one hand to offer flexible, made-to-measure products of the kind desired by the customer (e.g. “dynamic packaging”, mobile services), and on the other to engage in a new type of relationship with customers through web 3.0 interactive and participatory networks (twitter, facebook etc.), and therefore increase their market know-how (guest reviews, survey sent after the stay etc.). Another benefit of ICTs is the opportunity to better promote sustainable and high-quality tourism offers of the Alpine region, by playing on its competitive advantages, the diversity of its countryside and exceptional cultural wealth.

What is known as “tourism infrastructure” lies at the

foundations of a site, or a territory’s operation as a destination and involves several levels:

- access to tourist areas, i.e. airport(s), road(s), railways, navigable rivers and their terminals, such as stations or shelters, and the necessary vehicles, including buses to reach the tourist sites;
- any associated services: signage, welcome desks, shops, waste management, toilets, and public utilities.

All this infrastructure could exist even before a territory is enhanced from the point of view of tourism. This is especially the case with valleys before one of their sites becomes a summer or winter resort.

- Tourism-only infrastructures, to be used by tourists during their stay: equipment, ski slopes, hiking trails, hotels and restaurants, guesthouses, climbers’ huts, spa and amusement centres, swimming pools, skating rinks, museums etc.

Comprehensive information about all aspects of a journey before arrival but also on site have a significant influence on the decision making process of customers. Today the information given by destination information systems provides all elements of the service chain before starting a trip. Nevertheless, in a destination, tourist information (TI) with all associated functionalities is still indispensable. They should be located near higher road connections, railway stations as well as in walking distance from the centre of the destination village. The bundle of infrastructure elements of a TI is:

Signage to tourist info, parking, 24 hour opened indoor information area with online terminal and printed information, tourist info office with front desk and back office area, toilets, area maps; often combined by shops with regional and locally produced goods.

As a result of the new information and communication technologies (growing importance/use of ICT), communication strategies are changing, and so are the expectations and behaviour of tourism consumers, with regard to goods, services as well as access to information. The visibility of tourism products and the ease with which they can be compared via the Internet is accentuating competition between Alpine and non-Alpine destinations, as well as between tourism enterprises themselves while encouraging diversification and innovation in the promotion and marketing of a specific territory.

Examples of good practice

Butiner au pays du Mont-Blanc Slow – Tourism in the area of Mont-Blanc



Figure 11: Autour du Mont Blanc



Figure 12: Logo Autour du Mont Blanc

This project was developed by Mountain Wilderness Suisse as pilot project in SLOW TOURISM on the Swiss side of the Mont-Blanc region. From the beginning, its aim was to create a NETWORK of product and service providers across the French, Italian and Swiss sides in order to allow for a slow-pace, authentic discovery of the natural, cultural and social wealth of the region. Bi-lingual commented maps with hiking trails indicate both the network member sites and the accessibility by public transport. Beyond this triangular network its novelty lies in liaising small-scale local actors across regional as well as branch frontiers, linking agriculture (cattle owners, pasture managers and local product producers – mostly cheeses, yogurts, honey, jams and wine), artisans (bell-making, wood sculpture), independent certified nature guides* and small scale hostelry (mountain huts and B&B) with the local cultural heritage (little museums, including a bell tower and a mill, as well as art galleries) in order to create themselves a sustainable tourism offer complementary to the mainstream tourism catalogues and to international mass tourism on the popular Tour du Mont-Blanc.

Such an in-depth focus on LOCAL assets and people and on the INDIVIDUAL pace for discovering an area is an easily transferable principle which can be applied to any other Alpine region. The project is adjustable according to the socio-economic changes that take place over time. The challenge remains the self-management and the (professional) marketing in and outside the region; the success depends on the engagement, availability and capacity of the network participants in running it.

www.autourdumontblanc.com

**accompagnateurs/trices de moyenne montagne – a new profession in Switzerland*



Figure 13: Butiner 2004



Figure 14: Butiner 2005

Bergsteigerdörfer – Mountaneering villages

The “Mountaneering Villages” initiative (Bergsteigerdörfer) originated from an idea of the Austrian Alpine Club (OeAV). With the help of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (Lebensministerium) and a grant from the European Fund for Rural Development selected mountaneering villages are supported in their development within the framework of the Alpine Convention.

The villages brought together by this initiative share an often outstanding history of Alpinism, whose arose as part of the cultural self-image of its residents and guests, a self-image which it was possible to preserve and further develop over the generations.

Mountaneering villages commit themselves to pursue a high quality tourism offer involving the local population and the other economic activities and become exemplary regional cores of development. They guarantee a professional range of tourism activities for mountaineers, boast an excellent quality of landscape and environment, and are devoted to the preservation of local cultural and natural values.

The network currently embraces 17 Austrian municipalities which assure the respect of common criteria (exclusion, mandatory and target criteria). While exclusion criteria guarantee that the village has an adequate profile (i.e. accommodation facilities without being a mass tourism destination, population not too high etc.) mandatory criteria assure the quality of the whole offer (tourism, landscape, mobility and cooperation quality). Target criteria, lastly, address the wished further development.

Developed in the frame of the Alpine Convention, one of the initiative’s next goals is to expand the experience beyond Austrian border. A pilot project co-founded by the European Union (Interreg IVA Italy-Austria) is currently fostering the cooperation with three villages in the Province of Belluno (I).

www.mountainvillages.at

D.2.1.2 TRANSPORT TO THE DESTINATION

After looking for information and booking a holiday or visit, the second stage is generally arranging the travel to the chosen destination.

In line with the principles of the Transport Protocol of the Alpine Convention, aiming at promoting sustainable mobility and accessibility in mountain tourist destinations, visitors should be allowed to travel easily and using sustainable transport to better enjoy the natural environment and reduce the negative effects of and risks posed by intra-alpine and trans-alpine transport to a level which is not harmful to people, flora and fauna and their environments and habitats. However in reality, access to Alpine destinations is at present primarily dependent on the road network, with private cars representing the dominant mode of transport. The elements highlighted in this chapter clearly apply also to the travel back home.

According to the First Report on the state of the Alps (Permanent Secretariat of the Alpine Convention, 2007), the transport system in the Alps is characterized by a limited number of corridors for reaching the Alpine regions or crossing

the Alps. Railways and roads connect the Alpine region. For tourist accessibility, especially for those tourists with an origin-destination (O-D) journey above 1,500 kilometres, airports play an important role. Beside a few important airports inside the Alpine Convention area, major airports are mainly located outside the Alpine Convention area (e.g. Zurich, Geneva, Milan Malpensa, Nice, Vienna, Linz, Ljubljana or Munich). Nowadays urban centres outside the Alpine arc (e.g. Munich or Milan) may even have a better accessibility in terms of travel time or comfort than some inner Alpine agglomerations located in adjacent valleys.

Key figures

In Central Europe, Alpine countries such as Austria, France, Germany, Italy and Switzerland, tourist and leisure travel account nowadays for 40% of journeys and 60% of kilometres per passenger, as compared with 30% of kilometres per passenger in the 1960s. Leisure-related transport has therefore considerably increased over the last fifty years (ARE, 2006). Similarly, the RSA 1 (Permanent Secretariat of the Alpine Convention, 2007) shows that for all Alpine countries, on average about 84% of tourists use the car to travel to the

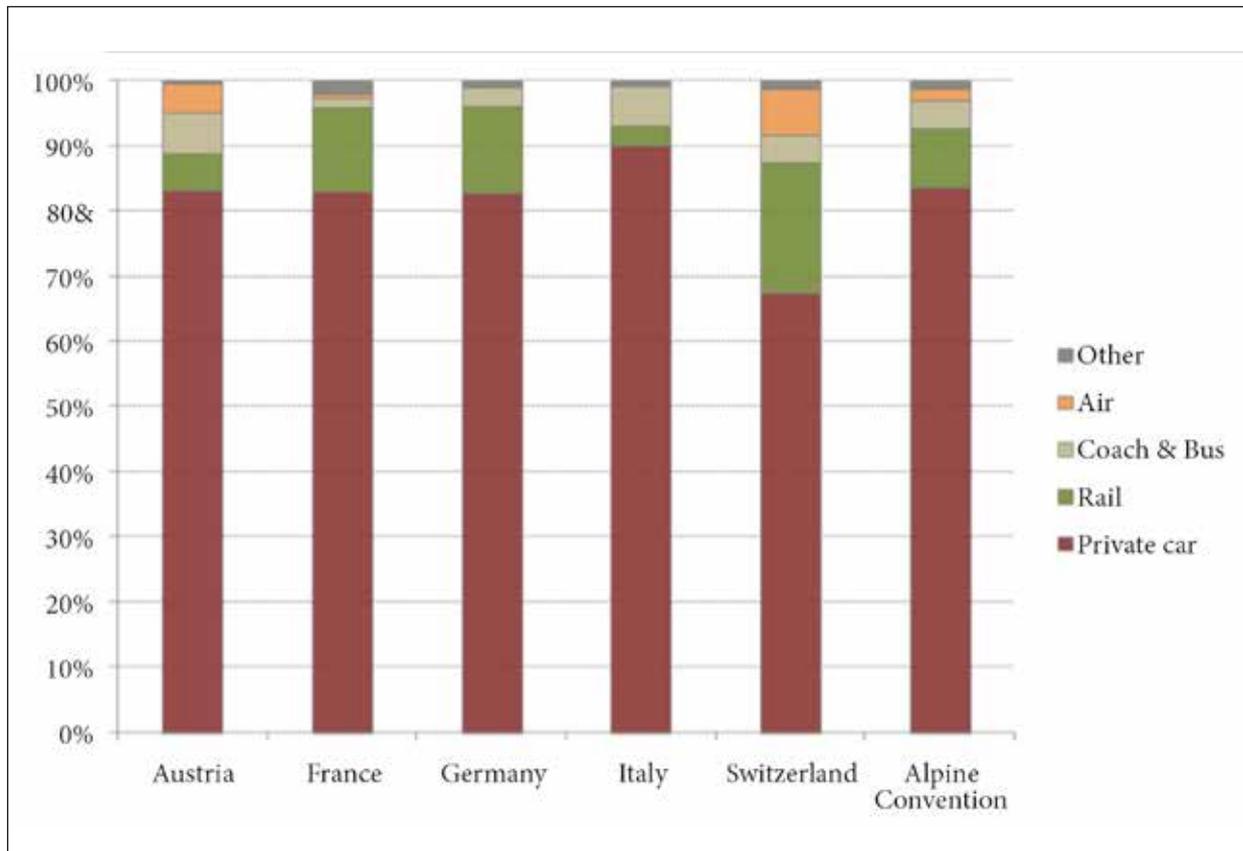


Figure 15: Modal choice in tourism (O-D journey) in the Alps; Source: National studies, MEIER R. (2000), Eurostat (2008), ÖW (2008) T-Mona, DUPREZ F. (2008), SEYBERT H. (2008), Statistik Austria (2008), BFS (2008) and own calculation

destinations: 90% in Italy, about 83% in Austria, France and Germany, and 67% in Switzerland.

The percentage of travelling to the destination by train is about 9% (in average for all countries). The share of tourists using the airplane is still low which is, as a matter of fact, due to the relatively small catchment area of the Alpine region. It mainly covers distances up to 1,000 kilometres with a substantial share below 500 kilometres – a distance where airplanes may not efficiently compete in travel time with land bound transport modes. With 25% of visitors arriving by train or bus, Switzerland could be considered as a good practice in this sense.

Private transport

The increase in leisure travel, considering the fact that these journeys are mostly done by car ("motorised private transport/ MPT"), causes as a consequence an increasing stress on the Alpine environment, as well as on the health and quality of life of local people and visitors. Generally speaking, travels have many repercussions on the environment: acquisition and building-over of land with infrastructures, consumption of fossil fuels, increased noise, as well as air pollution. The increase in road traffic in the Alps (as well as the increase in other economic

sectors and human activities) contributes to GHG emissions and to climate change and its consequences (EEA, 2008).

Over a long term, emissions from transport may be a considerable source for global climate change and as a consequence may be seen as one of the largest single causes of the exceptional meteorological phenomena now being experienced with increasing regularity in Alpine regions (massive snowfalls, heavy rains, storms).

Where leisure travel is concerned, there is also considerable potential for reducing greenhouse gases emissions per kilometre.

Various kinds of complementary measures can be envisaged to try and solve the leisure travel equation and make it more sustainable. For example:

- defining, in coordination with the business and scientific community, new and increasingly efficient technical standards applicable to means of transport;
- reorienting travel choices so as to reduce reliance on motorised private transport (MPT) and develop more sustainable forms of transport; (e.g. increase the

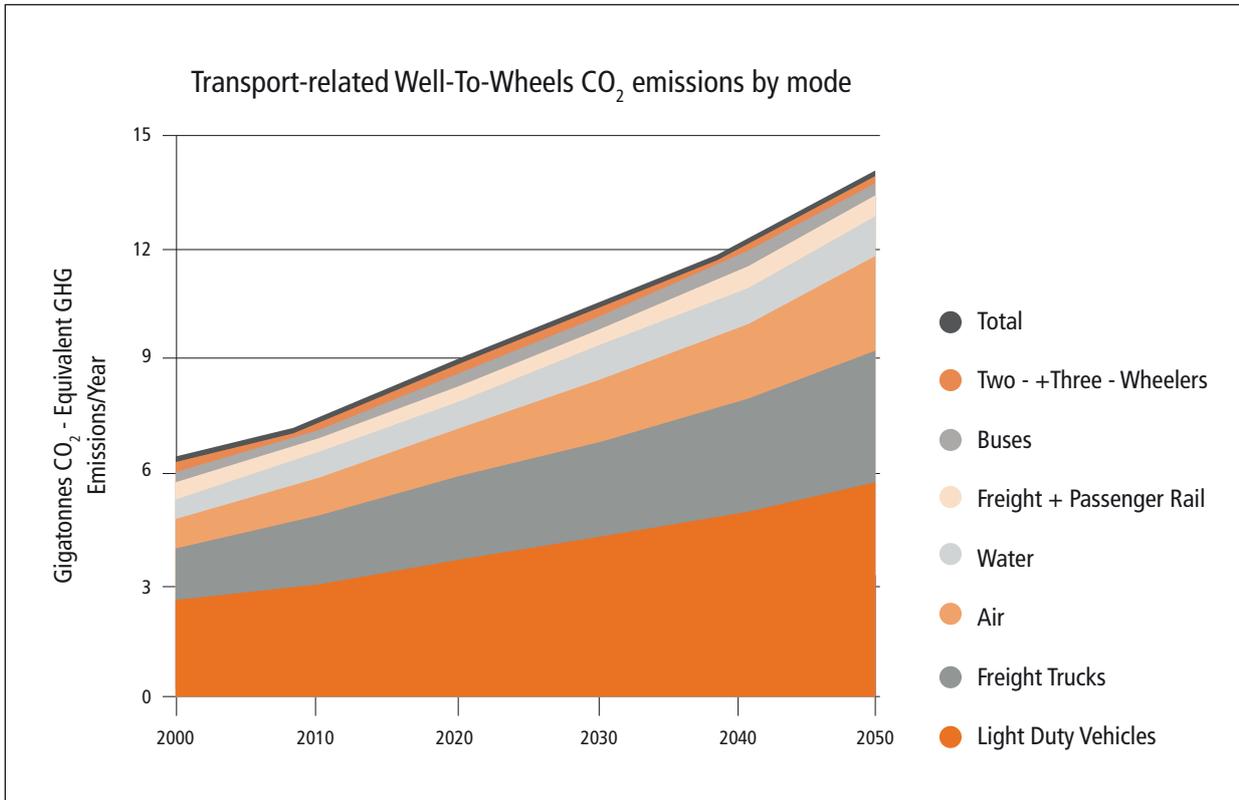


Figure 16: Transport related CO₂ emissions by mode

availability of cost-effective public means of transport for travelling to and from a destination)

- develop the provision of information and service on the public transport options for travelling to and from a destination

In the first case, technical improvements in various modes of transport (e.g. particulate filters, hybrid vehicles, low-consumption engines) have led to a gradual reduction in energy costs and greenhouse gas emissions per kilometre. Nevertheless, given the overall increase in traffic, it has not been possible to reduce the total volumes of fuel used, nor the total emissions generated.

As far as the second measure is concerned, reorientation of the transport to reach a destination can be broken down into three actions: introducing and/or developing transport services from the main areas from which tourists travel; improving the journey for the final kilometre(s) to the destination by requiring tourists to switch from private cars to public transport services; and offering combined "train/bus/ski pass" packages at reduced prices.

The connection between these and the third proposed measure is then self-evident, because tourists need to be made aware of public transport and soft mobility options when they are planning or booking a holiday or

visit (see "Alpinfonet" project). The new information and communication technologies mentioned in the previous chapter are clearly an asset and an advantage from this point of view (e.g. appropriate and accurate information for customers, booking online in real time, virtual ticketing via one's mobile phone).

Public transport

In addition to the environmental impacts of leisure travel, problematic issues referring to public transport have also to be pointed out (Permanent Secretariat of the Alpine Convention, 2007).

In general the accessibility of the Alps by public means of transport is acceptable. Most of the destinations within the Alps show accessibility indicators above the European average. Nevertheless, the transport supply for tourists, i.e. the quality and quantity of services, is claimed to have large deficits. A key deficit identified was the lack of direct connections and the missing link between long distance, particularly cross-border and short distance public transport, e.g. the "last mile" between the station and the resort.

The costs are among the major factors influencing the modal choice in O-D (origin-destination) transport. Often, travellers simply compare the marginal costs of car use (gasoline,

parking costs and tolls) with the costs of a ticket by rail, bus or plane. The prices of rail tickets may vary by a factor 5 (!) depending on fare availability and time of booking. Due to the fact that the rail market undergoes continuing fragmentation, a comprehensive comparison of prices is generally not possible, even for railway staff selling tickets. Whereas attractive offers are often limited to the national market, unattractive prices are the rule for transnational tickets. For some international trips or O-D relations it is not even possible to purchase a through ticket.

Because of population growth and the global uptrend in tourism, leisure traffic in the Alps seems

to be destined to increase. By 2030, a further general increase of leisure transport of 30% is predicted (ARE, 2006). To satisfy this demand, while limiting negative impacts of climate change, it is important first that all means of transport meet the most effective environmental standards. Secondly, Alpine destinations need to offer efficient, affordable and integrated public transport facilities from the places where their main customer groups live to the destinations they will choose to visit. In future, a system of this kind should be a major competitive advantage, particularly in facing competition from other destinations.

Examples of good practice

In terms of good practice, the tourism services offered by Alpmobil are interesting for many aspects (www.alpmobil.ch). Alpmobil provides a network of electric vehicle terminals – connected to public transport routes – from which tourists can start excursions or holidays and discover Switzerland's principal Alpine Cantons. This service is all the more sustainable in that the vehicles are powered by locally produced hydroelectric energy. "Elektroautos" can be booked via the internet, and it is also possible to book accommodation on the chosen route.

Klima:aktiv, mobility for tourism, leisure and youth, another exemplary advisory and promotional programme, run by the Austrian Ministry of Agriculture, Forestry, Environment and Water Management (www.klimaaktivmobil.at), aims at reducing emissions of greenhouse gases in the traffic sector. This programme supports measures to encourage "zero car access" to destinations, soft mobility in and around the chosen destination and where leisure travel is concerned (Allemand, 2006).

Switzerland Mobility network helps tourists discover the Swiss Alps by bicycle, mountain bike and on foot, following a system of waymarked itineraries covering more than 3,300 kilometres (www.switzerlandmobility.ch). In fact, thanks to the development of soft mobility in relation to tourism, it is possible to enjoy a fully sustainable holiday in terms of transport. Bayern-Ticket is a one-day railway ticket valid all over Bavaria for all regional trains, regional busses and many local transport systems. It costs € 22 for the first person and an additional € 4 for each additional person travelling in the same group (maximum of 5 people, regardless of distance to final destination in Bavaria). As all children up to the age of 15 travel free with their parents, this is a very cheap and attractive offer, especially for day-trips to Alpine destinations in Bavaria. The ticket is very popular. On some weekends, demand even exceeds train capacities, and the ticket contributes to environmentally friendly mobility in the Alps. A hiking guide listing "the most beautiful hiking trips with the Bayern-Ticket in upper Bavaria" provides additional information to visitors about excursions by train.



Figure 17: Website "A piedi tra le nuvole", Gran Paradiso National Park ©

A piedi tra le nuvole ("Walking in the Clouds") – Colle del Nivolet (I)

The "Walking in the Clouds" project is promoted by the Gran Paradiso National Park in partnership with local bodies. The Nivolet is a plateau of peat bogs and wet areas 2500 metres high. In recent years – especially in the summer on Sundays – Nivolet has increasingly turned into a large parking area. The aim of the project is – besides regulating traffic and parking – to envisage the enhancement of the whole area by means of quality tourist projects. All Sundays in July and August the last six kilometres are not accessible by private cars. It is possible to go on foot, by bike or by shuttle bus.

D.2.1.3 TRANSPORT IN AND AROUND THE DESTINATION

As explained in chapter D.2.1.2 “Transport to the destination”, leisure travel has been increasing steadily over the last fifty years, and this trend is very likely to continue in the coming decades. With very few exceptions, the global growth in flows of traffic to tourist destinations, and particularly Alpine resorts, inevitably means an ever larger number of vehicles circulating within tourist destinations.

Current situation

There are few available statistics that would enable us to quantify transport in and around destinations on a case-by-case basis. However, it is important to stress that this growing mobility within destinations leads to the same types of infrastructure development (e.g. peripheral or town-centre car parks, shuttle buses, cable-based transport) and problems (e.g. building-over of land, traffic congestion, air pollution) arising from access to a destination. This situation makes it necessary to find specific solutions for each destination, taking into account its topography and layout, and working on the whole mobility chain for the tourist/customer.

The Alpine Convention Working Group on Transport (2008) pointed out interesting issues, starting from the need to improve the inadequate provision of information and the generally weak supply of local and regional public transport in and around the destinations. This makes it difficult for tourists to use public transport as a through-mode for the whole journey. A “mobility guarantee” by public transport at the final destination was identified as a key element to attract potential future public transport users.

Service quality and provision of information at local stations (user-friendliness, accessibility etc.) and onboard trains are

often low standard, especially if compared to private car travel. The supply and quality of services relevant to tourists using public transport (such as luggage transfer services or facilities at the stations) differ significantly between the single Alpine Countries and often show great deficits.

When arriving by rail, bus or plane, the number and the quality of intermodal links between the final destination and the nearest railway stations or the airport are key factors to influence modal choice for O-D transport.

Provision of information is a prerequisite for using public transport efficiently. Particularly making the information available on the internet is of great importance, as tourists can plan their trips in a fast and uncomplicated way. However, the basic provision of timetables should be accompanied by additional information which are useful for tourists using the train or the airplane (information on how to reach the resorts, information on local public transport services in the resorts, information about services during the trip, information about the services at the intermodal nodes).

The rising cost of fossil fuels can help to reconsider the ways in which tourists travel. For marketing reasons, it becomes increasingly desirable for a resort to introduce measures combining soft mobility, improved public transport and reduced traffic volumes, which may reduce harmful impacts and increase the quality of the stay. The introduction of soft mobility within Alpine resorts is driven not only by environmental concerns, but also by economic issues. It is also important to develop and support local and regional public transport by improving the quality of the vehicles/rolling stock, increasing the number of areas served by more frequent services.

Examples of good practice

Les Gets (F) offers a good example of measures that can be taken to restrict the access of private vehicles to a resort and ensure that, once tourists have arrived, they use their cars as little as possible (Allemand, 2006). With this in mind, the following measures have been introduced over the years:

creation of two underground car parks, one located at the entrance to the resort; narrowing of the roadway, with no possibility of parking (except for drop-off and delivery points, and for the disabled); creation of 1,500 metres of pavement, to encourage people to walk; doubling the free shuttle network, with shuttles operating at regular intervals; paying for seasonal workers to travel by train so that they do not need to come into the centre of the resort by car, and introducing a more extensive shuttle timetable.

Free use of public transport in the valley of Tegernsee (D)

Many Alpine destinations have very good public transport systems connecting the villages to attractions as well as to the hiking trail network. In the Tegernsee valley all hotel guests receive a guest card, the Tegernseecard, which includes free

use of all busses in the valley and around the lake. This offer leads to a significant reduction in the use of private means of transport for tourists.

Controlling visitor flows in the Nagelfluhkette Nature Park (D)

The Nature Park has responded by launching the Besucherlenkung (Controlling and Directing Visitor Flows) project. Information was gathered about sensitive animal species and their habitats, and their needs in comparison with the leisure activities for visitors in the Nature Park. On this basis, concrete proposals were drawn up for action to control visitors flow.

The route of three lands (SI)

The project "Cycling routes of three lands" represents a pilot project in building long distance bike routes and was started as a project between Italy and Austria. In Slovenia the project started in 2001, when the first part of the cycling route, from the Rateče border crossing to Kranjska Gora and Gozd Martuljek, was finished and marked. In the year 2012, the last part of the route ended with a bridge to Gozd Martuljek. The cycling route is an independent path on the abandoned rail line in a natural environment and distant from the main road. It is asphalted, 2.5 meters wide and only joins the local road to give the chance to see tourist attractions. In the towns along the cycling route there are all the necessary supporting infrastructures: bike rentals and services, restaurants and bus connections. This cycling route is an example of good practice since it enables the slow tourism, aimed at enhancing local tourist attractions by giving it a wider scope. Furthermore, this is the most environmentally friendly way of handling tourism.



Figure 18: Shuttlebus in the Natural Park Paneveggio Pale di San Martino © Parco Naturale Paneveggio – Pale di San Martino

Parking lots and shuttle bus in Parco Paneveggio-Pale di San Martino, Val Genova and Alpe di Siusi (I)

The Val Genova and the Paneveggio-Pale di San Martino Natural Park in Trentino and the Siusi Alp in South Tyrol are subject to high pressure for what concerns daily car turnover. Hence, the local administrations have organized sufficient parking lots with fare fees and a shuttle bus connecting the surrounding villages and natural amenities. Since summer 2003, at the Siusi's Alp, the road to the Alp is closed between 09:00 and 17:00. Tourists need to use the cableway.



Figure 19: Faire fees for parking places EMS, © Peer, www.seiser-alm.it/de/karte/seiser-alm-umlaufbahn.html



Figure 20: Information for guests © Parco Naturale Paneveggio – Pale di San Martino

D.2.1.4 ACCOMMODATION AT THE DESTINATION

As far as hospitality is concerned, guests in Alpine destinations have a wide range of choices such as

- hotels
- para-hotel structures (e.g. holiday apartments, B&Bs, camp sites) and
- second homes

When Alpine tourism took off and until the 1950s, hotels were the main form of accommodation. The situation in the Alps then changed, with the construction of second homes, which were put up rapidly in the 1960s and 1970s, eventually outstripping the capacity of hotel facilities.

This trend has continued, though it may have slowed down during periods of economic recession, when the number of

second home buyers tended to decrease. Although the 1990s were relatively quiet years, at the turn of the millennium this market saw a new spurt in building activity, with greater emphasis than previously on the construction of luxury holiday homes (Clivaz & Nahrath, 2010).

Since the times of the “discovery of the Alps” in the 19th century, the Alpine associations and similar organisations have maintained a dense net of over 1500 huts in lower and often very high and remote mountain areas with special difficulties in providing an adequate supply of water, food and energy. They are not only a base for traditional alpinism but increasingly even a form of holiday accommodation for “normal” tourists to whom they are also open. There are a significant number of huts with more than 300 beds and a high number of overnight stays during the season which often serve as a starting point for ascents on famous mountains or as stage posts for trails “from hut to hut”.

Via Alpina

The Via Alpina is one of the longest and most spectacular hiking trails existing. Altogether Via Alpina spans for approximately 5,000 kilometres and has 342 individually numbered and posted stages. It stretches across no less than seven different countries along the way, starting in Slovenia near Trieste, crossing through Austria, Germany, Liechtenstein, Switzerland, Italy and France finally ending near the world-famous beaches of Monaco. One of the main goals of the Alpine Convention in creating the Via Alpina trail system was to help preserve the distinct cultures and character of the Alpine mountain range as it faces increasing threat from global warming and other environmental dangers. One can also choose to sleep outdoor or take advantage of extremely comfortable village lodges along the way.
www.via-alpina.org

Measurability of tourism intensity in the Alps

To be efficient and attractive, any report on the state of the Alps needs to be illustrated by maps, based on objective and relevant data.

Since the beginning of its works, the ad hoc expert group planned to include maps in this report, like in the three previous ones.

For the tourism sector, the main existing data in most of the Alpine countries concern the accommodation supply and its frequentation: hotels and other accommodation structures, in order to measure the tourism intensity of each country.

However, the expert group was soon confronted with the problem of a certain lack of homogeneity of the data among the countries, as it is shown below.

“Tourism Intensity” based on the number of beds per inhabitant represents the classic offer-oriented indicator. This is due to the good availability of data compared to the demand-oriented maps (see following figures). It measures the geographic distribution of tourism facilities, in this case hotel and similar establishments, and its quantitative dimension.

It gives hence a first impression of the spatial presence of tourism. However, the demand-oriented approach remains more promising as it provides an overview of the real impact i.e. the dimension of tourism demand. It has to be considered that tourism in hotels and similar establishments are defined differently throughout the Alpine Convention Member States.

The main national features are:

- in Austria only municipalities with annually at least 1,000 overnight stays are considered;
- in France hotels must have at least five rooms;
- in Germany only commercially managed enterprises with at least nine beds are integrated;
- in Italy accommodations with a capacity of at least seven rooms are counted;
- in Liechtenstein also private accommodations are integrated;
- in Slovenia no complete and up-to-date coverage of all tourist accommodation establishments can be provided. Hotels and holiday apartments prevails as type of accommodation in the Alpine area, nevertheless according

MAP: Population based Tourism Function Index (bedspaces) - 2010

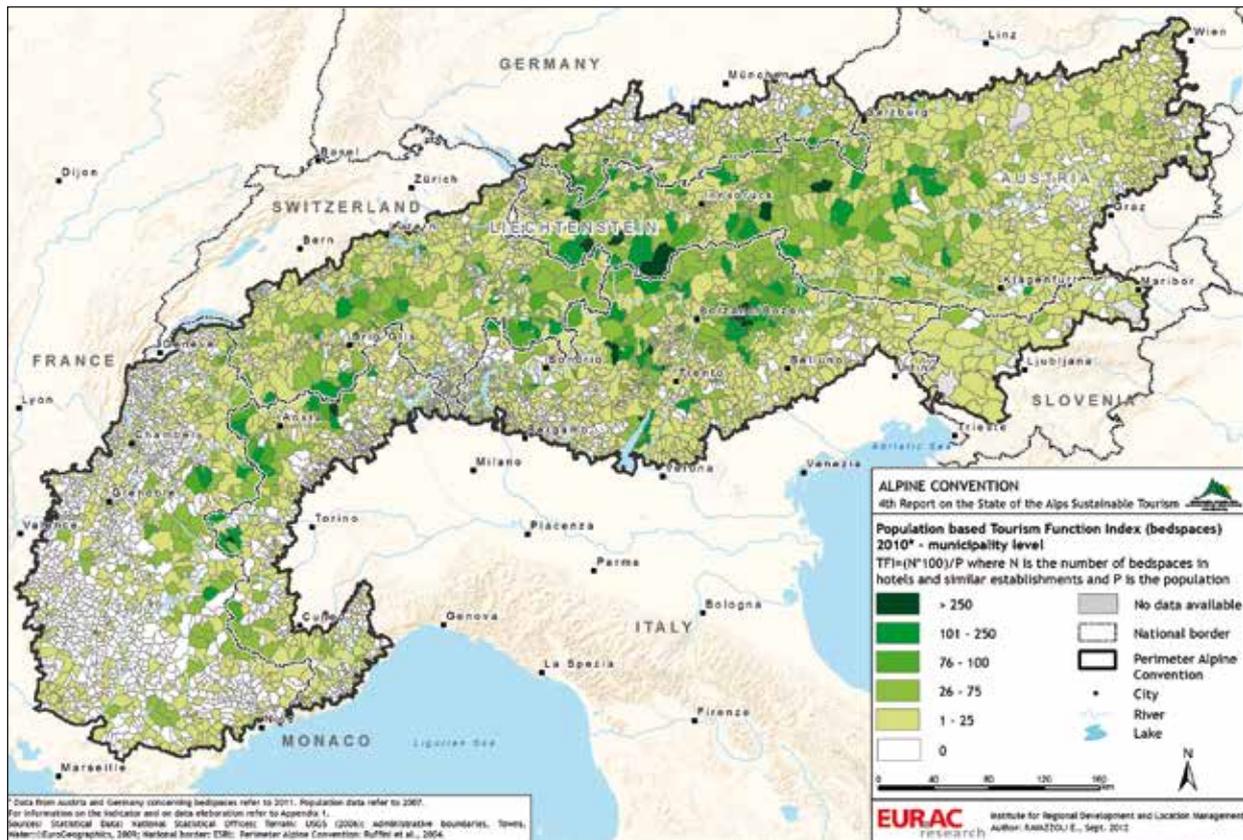


Figure 21: Population based Tourism Function Index (bedspaces) – 2010, $TFI = (N * 100) / P$ where N = number of overnights and P = population

to the law on Catering and Hospitality “second homes” are not classified as official tourist accommodations.

- in Switzerland only beds in hotels and hydrotherapy centres in municipalities with at least three (as in France) accommodation enterprises are registered;

The taking into due consideration of the differences among the States plays an important role for a correct interpretation of Figure 21. A comprehensive quantitative recording of tourism, especially for many municipalities with small numbers, is not feasible due to quantitative limits in nearly every country (mainly in Austria, France, Germany, Italy and Switzerland). The overall data may be well below the actual values because of these limitations and the exclusion of some regional widespread non-hotel accommodations (in France, Italy). The data could be also higher than the actual situation, as in Liechtenstein, where also private accommodations are included.

The figure generally depicts a decline in intensity from the highly tourist centres to the periphery, i.e. from the centre to the north and south as well from the centre to the west and east. Intensive tourism can be documented in the central Alpine regions of France (Chamonix, Val d’Isère, Tignes), Italy

(Dolomite regions of South Tyrol and Trentino, Bardonecchia, Cortina) and Austria (Saalbach-Hinterglemm, Kitzbühel, Tyrol). The most significant regional discrepancies are evident in France and Italy.

Alpine tourism is a significant user of natural resources. A major issue for the sustainability of tourism is for instance water consumption, as hotel guests use on average one third more water per day than local residents (European Commission, 2007).

Tourism enterprises, especially hotels, increasingly respond to environmental concerns by reducing their resource use and their waste production. There is a growing trend towards the implementation of environmental management systems (EMS; ISO 14000 and the Eco-Management and Audit Scheme (EMAS)) which helps tourism enterprises to evaluate, manage and reduce their environmental impacts. The overall objective of EMS is the ongoing improvement of the environmental performance. This includes for instance the reduction of water, waste, greenhouse gases and energy consumption. The enhanced use of renewable energies or the recycling and reuse of materials can also be an important components of EMS (European Commission, 2007).

Classification of hotels and similar establishments in the Alpine Countries

Hotels are generally classified in all Alpine Countries in six categories from 0 to 5 stars, in function of their comfort, equipment and services.

State	Classification of "hotels and similar establishments"	Limits or other special features	Source
Austria	Businesses that against payment accommodate guests and provide them with meals, and therefore are in possession of an appropriate concession, according to the Commerce Regulation Act 1994. When considering apartments and bungalows which are located within or leased by an accommodation facility, the whole complex counts as "hotel or similar facility".	Of the total of 2357 municipalities 1640 municipalities (as of 2011), which have at least 1000 guests for overnight stays each year and thus transmit data to Statistics Austria are registered.	STATISTICS AUSTRIA: Directory for spatial economics, section tourism, vehicles and road security: standard documentation, meta-information (definitions, explanations, methods, quality) for the accommodation statistics, monthly overnight statistics, yearly supply statistics.
France	Tourism hotels: Hotels are classified or accepted for tourism use by the prefect after a resolution of the commission of the department for tourism development. The criteria for their classification are strict and are defined by a legal decision of 23rd December 2009.	To be classified as tourism hotel the accommodation facility needs at least 5 rooms.	INSEE: www.insee.fr/fr/methodes/default.asp?page=definitions/hotellerie-homologuee.htm
Germany	Hotels and camping	Commercial accommodations with at least 10 beds.	www.statistikdaten.bayern.de/genesis/online/data?operation=merkmaleVerzeichnis
Italy	Hotels, residences, apartment-hotels, motels, garni, rooming and boarding houses, period residences, beauty farms and conference centres.	Hotels: accommodation capacity no less than 7 rooms.	ISTAT Glossary: Accommodation Capacity for the year 2009. Final data.
Liechtenstein	Hotels in the Rhine Valley and Alpine hotels. All guests who stay overnight in Liechtenstein at least for one night in a hotel, private room, apartment, youth hotel or dormitory are counted in the tourism statistics (including local guests). The number of arrivals and overnights are collected according the home country, month, overnight category and geographic criteria, as well as duration of stay. Furthermore, the number of hotels, the personnel working in hotels, the number of beds and rooms as well as the occupancy of the hotels are registered.	The definitions used are mostly identical to Eurostat's (regulation (EG) Nr. 34/1999). The only exceptions are private rooms for rent. They are counted as hotels because of privacy reasons (Eurostat does not count them as hotels).	Yearbook 2011: www.llv.li/pdf-llv-as-tourismusstatistik_jh_2011_internet
Slovenia	Hotels and similar establishments include hotels, motels, boarding houses, inns and overnight accommodations (bed and breakfast).	For overnight accommodations (bed and breakfast) only, monthly data do not cover establishments with less than 10 permanent beds. Annual data also include units that have less than 10 permanent beds; therefore, the sum of monthly data on tourist traffic does not correspond to its annual figure.	Catering Act (OJ RS, No. 93/07) and Rules on Categorization of the Accommodation Facilities (OJ RS, No. 62/08 www.stat.si/letopis/2011/MP/25-11.pdf

MAP: Area based Tourism Function Index (overnights) – 2010

The area based Tourism Function Index describes the number of overnights related to the municipality area and represents a demand-oriented indicator. The overall picture is similar to that of the Area based TFI (beds), but the concentration of overnights per km² is even stronger in the central part of the Alps and in the area where France, Italy and Switzerland border. National values of the index show that Germany is definitely the country with the highest Area based TFI (overnights) (222,427), followed by Austria (117,756) and Italy (101,231). The NUTS2 regions with highest concentration of overnights per km² are the same as those having the highest Population based TFI (overnights), - i.e. the Autonomous province of Bolzano (I), Schwaben (D), Tyrol and Salzburg (A). There are several municipalities with very high figures and they are located almost only in the central Alpine area (especially in the Dolomites) or surrounding Alpine lakes (Lago di Garda, Lago Maggiore, Lago di Lugano). Urban areas such as Innsbruck (A), Bolzano (I), Aosta (I), Chambéry (F) and Grenoble (F) show higher values than mountainous areas.

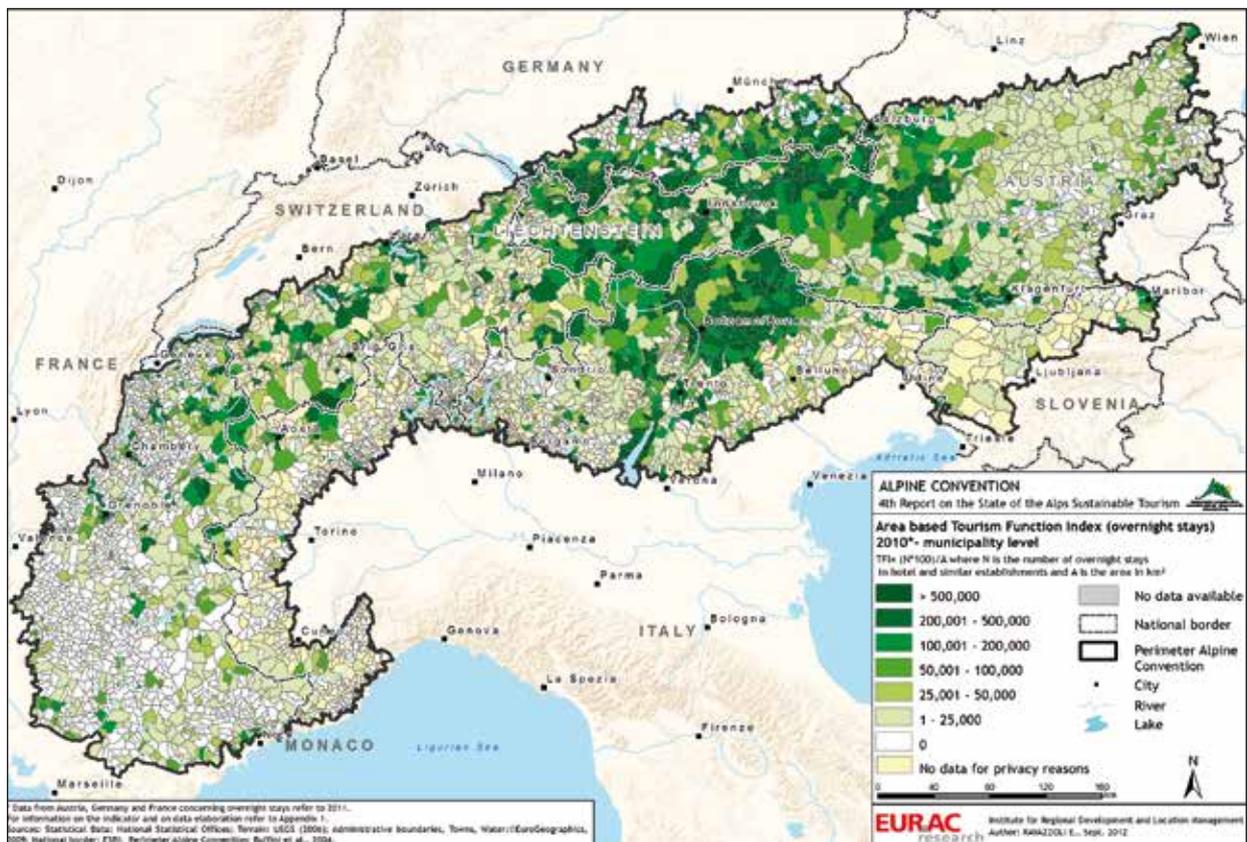


Figure 23: Area based Tourism Function Index (overnights) – 2010, $TFI = (N * 100) / P$ where $N =$ number of overnights and $P =$ area in km²

MAP: Average length of stay – 2010

In most parts of the Alps, four nights is the usual length of overnight stays. The average length of stay in the whole Alpine Convention territory amounts to 3-4 days and only 11.2% of the Alpine municipalities (651 out of the 5,809) register an average length of stay higher than four days. It seems that the more central the location in the Alps, the longer the stay. Vice versa the destinations close to larger cities (e.g. Bozen/Bolzano, Innsbruck, Klagenfurt) or at the borders of the Alpine area are characterized by short stays of no more than three days. Overnight stays longer than six days are the exception and can be found only in places distributed heterogeneously over the whole Alpine region.

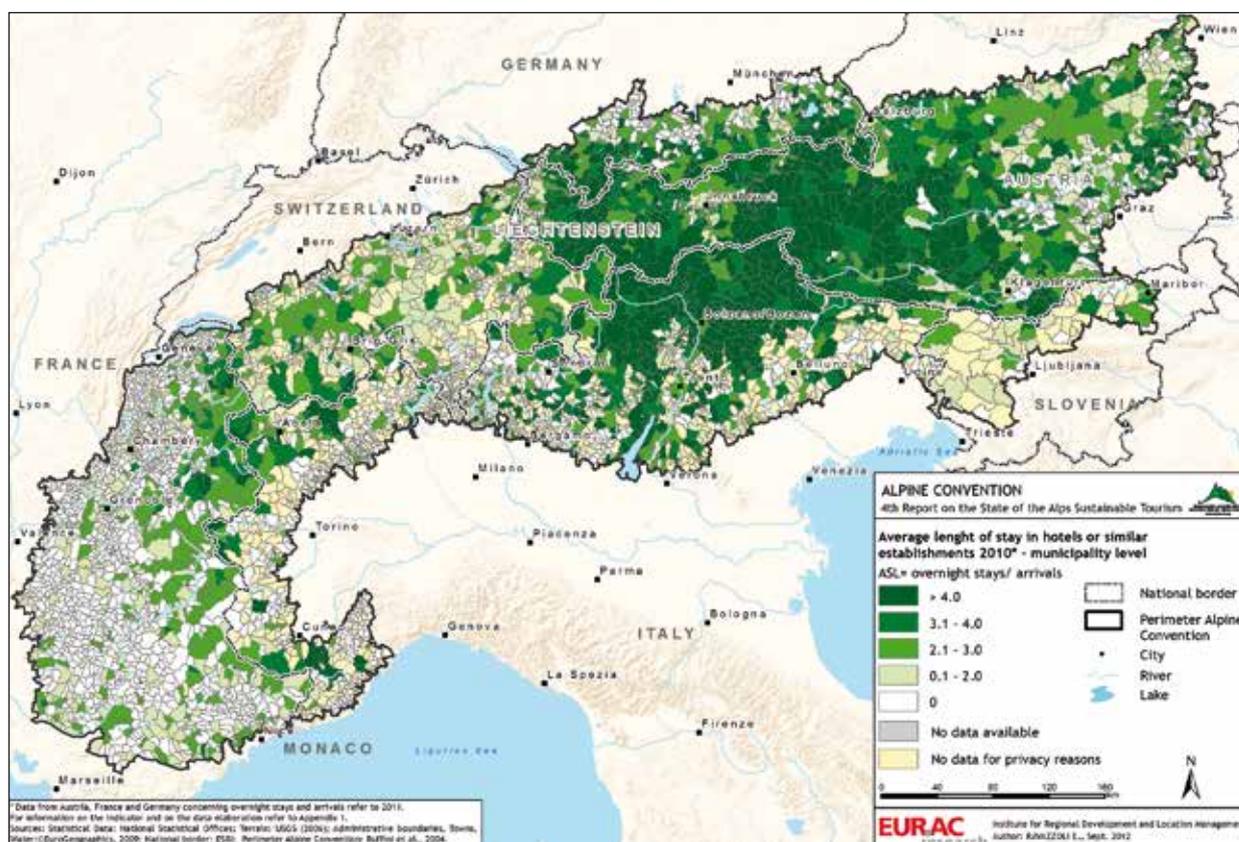


Figure 24: Average length of stay – 2010, ALS = overnights/arrivals

MAP: Average length of stay – % variation 2001-2010

The average length of stay in the Alps has generally decreased between 2001 and 2010 (-11.8%). The holiday duration in 2001 amounted to almost 4 days (3.9), while in 2010 it reached 3.5 days. The decrease appears to be very homogeneous and on national scale it ranges from -20% in Slovenia to -11% in Italy. The NUTS2 regions showing higher decreases are Kärnten (-19%) and Vorarlberg (-17%) in Austria. Nevertheless, there are a few municipalities located in the Eastern or Western part of the Alpine area showing positive variations, mainly due to the fact that they entered the tourism business after 2001.

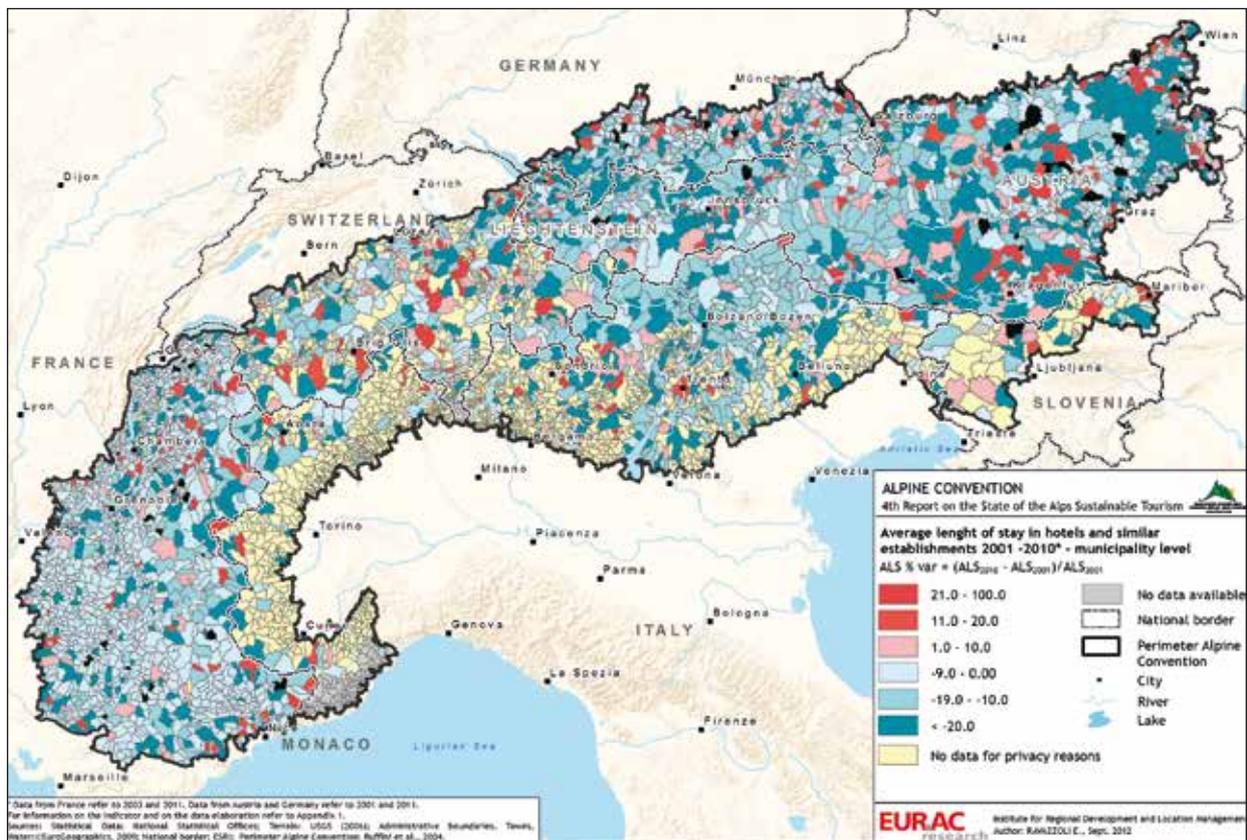


Figure 25: Average length of stay – % variation 2001-2010, ALS = overnights/arrivals

Explanatory notes on data analysis are available on the Alpine Convention's web site: notes.rsa4.alpconv.org.

Understanding of para-hotellerie in the Alpine Countries

Country	Understanding para-hotellerie	Comments
Austria	<ul style="list-style-type: none"> • commercial holiday dwellings • health resorts and recreation facilities (of social partners, private and public) • youth hotels • camping • operated mountain shelters • other accommodation establishments (huts, student dormitories if they are rented during summer holidays as hotels a.s.o.) • all forms of private accommodations (holiday dwellings, private rooms on farms and not on farms) 	
France	Regarding non-hotel accommodation, one cannot find an official definition in France from the INSEE (National Institute for Statistics). The definition depends on the related services (and subsequently from the related tax regimes): tourist residences, guest houses and holiday villages (as well as campsites, but they are not included in the field here).	Villa rentals in France do not belong to this category because they have no related services and they can be considered as simple house rentals.
Germany	No direct differentiation of hotels and para-hotellerie.	Commercial accommodations with at least 10 beds.
Italy	Complementary accommodation facilities include: <ul style="list-style-type: none"> • camping • holiday villages • mixed formulas of camping and holiday villages • houses for rent to be managed in entrepreneurial form • agro-tourism • holiday houses • youth hostels • mountain shelters • "other (not classified) accommodation facilities" (ISTAT, www.istat.it/it/archivio/37399)	Different classifications of accommodation facilities across the Alpine region
Liechtenstein	Include: <ul style="list-style-type: none"> • dormitories • youth hostels • mountain huts 	
Slovenia	<ul style="list-style-type: none"> • campings • holiday dwellings • tourist farms with accommodation • private accommodations – rented rooms, dwellings • mountain huts • company vacation facilities • youth hostels • vacation facilities for youth • other accommodation facilities • temporary accommodation facilities • marinas 	For private accommodations, tourist farms with accommodation and company vacation facilities, monthly data does not cover establishments with less than 10 permanent beds. Annual data also includes units that have less than 10 permanent beds; therefore, the sum of monthly data on tourist traffic does not correspond to its annual figure.

Switzerland	<p>In Switzerland, the definition of para-hotellerie includes three groups:</p> <ul style="list-style-type: none"> • collective accommodations: accommodation for holiday and sports camps, scouting, huts and youth hostels • holiday apartments/houses: accommodation in houses, flats, chalets, huts, private rooms, bungalows to rent and Bed and Breakfast (B&B) • camping <p>(www.bfs.admin.ch/bfs/portal/fr/index/themen/10/11/def.html)</p>	<p>There is a broad definition, but a very small amount of data collected. So far, only data on youth hostels, B&B and camping are available. The B&B data cannot be compared with the one on hotels because some of the B&B are also registered as hotels and included in the hotels data.</p> <p>Hence, there is no information on holiday accommodation for rent, and collective accommodations (except youth hostels).</p> <p>(www.bfs.admin.ch/bfs/portal/fr/index/themen/10/03/blank/key/03/01.html)</p>
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Second homes

In Tyrol (A), the proportion of overnight stays spent in second homes is around 8%, whereas in the Canton of Valais (CH) the figure is as high as 36%. In this particular case, in 2007, the average occupancy rate of tourist beds in Valais was 14%, as compared to 27% in Tyrol (Report of the Valais cantonal government on the Canton's Agenda 21 programme, 2011). As these figures demonstrate, second homes generally account for a significant percentage of tourist accommodation, though they remain unoccupied for a large part of the year, with the exception of Austria and Bavaria, where the accommodation structure is different and the proportion of commercial nights is higher.

Overall, the number of second homes continues to grow in most Alpine countries. In Switzerland, for example, the growth rate for second homes is distinctly higher than the growth rate for main homes, although the population continues to increase at a steady rate (ARE, 2006).

With the adoption of the "Zweitwohnungsinitiative" (initiative on second homes) the Swiss population is in favour of a limitation of the construction of second homes. The initiative has been adopted by the Swiss voters on March 11th 2012. The Swiss constitution has therefore been amended with an additional provision on the construction of second homes. This requires various adaptations of the legislation. In order to clarify the most pressing questions, the Federal Council has adopted a regulation which will come into force on January 1st 2013. It regulates the construction of new second homes as well as the handling of existing second homes. The regulation concerns communities with a share of more than 20% of second homes.

This kind of tourist accommodation has certain benefits like:

- wealth creation from the construction and sales of housing units;
- additional capacity for accommodating tourists;

- new capital injected into the regional economy;
- owner loyalty in times of crisis.

But it may also cause economic, social and environmental problems such as:

- waste of regional economic resources by building houses which may be with a low occupancy rate;
- "environmental costs" (landtake, possible alteration of natural and cultural landscapes, pressure on scarce resources etc.);
- rise in property values, making difficulties for local people, whether year-round or seasonal workers, to buy or rent property locally.

As it is shown below by some examples of good practices, appropriate economic incentives and legal instruments can be set up aiming at reducing inefficiency and short-run driven local policies in the field of construction.

Examples of good practices concerning second homes

To contribute to maintaining local employment in different branches of activity, a possible strategy is to develop and improve hotel and para-hotel provision. The potential of mixed types of accommodation on the borderline between hotels and para-hotel facilities can also be considered (e.g. hotel-type residences, holiday complexes) (Bieger & Laesser, 2008). Nowadays mixed-use concepts are often necessary for financing new hotels or to find investors.

There are already cases where private investors buy "second homes", but give the apartments to a company which then manages it as a hotel. The owner can use his apartment some weeks a year, the rest of the time it is a "normal" hotel (Ferienpark-concept).

Some Swiss municipalities have implemented restrictions, mindful not only of the constant increase in the number of second homes but also of the almost total take-up of available building land. For instance, in 2011 Saas-Fee introduced an annual quota system for plots allocated for the building of second homes (1,500 m² per annum). At Crans-Montana, any new development of multiple housing units must henceforth comprise a 70% quota of main homes (blog.sixieme-dimension.ch). This percentage may be reduced by paying a replacement tax based on the costs of constructing the housing units.

In **Tyrol** (A), the conditions governing the building of second homes are far more stringent. In holiday resorts, accommodation of this type may not exceed 8% of the total housing stock. In restricted cases the possibility exists to grant individual exemptions on grounds of highly personal causes (e.g. legacy). In **South Tyrol** (I), legislation stipulates that main homes must account for at least 60% of the housing stock. Since 2007, throughout this province, housing units built as main homes may not be converted into second homes.

In **France**, the measures taken are designed essentially to encourage owners of second homes to let them, so that they do not remain unoccupied for months. A system of "Opérations de rénovation de l'immobilier de loisirs" (ORIL) has been introduced to provide owners with financial aid to renovate their properties, while contractually obliging them to let the property for a minimum of nine years. At **Tignes**, with the same aim in mind, the municipality has teamed up with the private ski-lift operator to fund a programme to renovate residential properties. In 2006, as a result of this experiment they were able to increase the number of beds available for tourists by 1,000 units. The programmes that try to solve the issue of cold beds have been recently reactivated by the French Ministry of Tourism, in association with concerned municipalities and professional partners.

In **Bavaria** (D), municipalities can levy a tax on second homes, which in 2006 injected around € 19 million into municipal finances. In extreme cases, as at **Les Gets** (F), the allocation of building permits may be suspended for some years in order to restrict property speculation and control housing development locally.

Reka-Ferierendorf Urnäsch: where the city makes holiday together with the countryside (CH)

The Reka holiday village is situated in the municipality of Urnasch at the bottom of the Santis mountain in the Canton Appenzell Ausserrhoden. This holiday infrastructure was established and is operating keeping into account the principles of sustainable development. The concept is a showcase of Public-Private-Partnership between the municipality, the Ferierendorf Urnasch AG, which was founded specifically for this project and the Swiss travel fund Reka.

From the beginning on, a harmonious integration within the village of Urnäsch played a crucial role for the site selection. It is located close to the station, which allows a good connection to public transport. The buildings are characterized by modern architecture: construction material from domestic wood and energy efficient Minergie- and Minergie-Eco-Standards highlight resource efficient architecture. The complex, including its indoor swimming pool and sauna facilities, is heated by the district heating grid with wood pellet heating. The Reka holiday village is ideal for families. There are many common rooms and different outdoor Game- and Sportareas. Holiday guests also have the opportunity to be in

touch with agriculture, nature and animals. In close cooperation with regional farmers, the resort manages a stable with domestic animals and a petting zoo. Visits to farmer yards, discovery tours, as for example visits to a pro-specie-rara yard with cultural-historic diversity of animals and plants and other interesting offers are included. Moreover, guests have the opportunity to learn about traditional cooking. The holiday village is economically successful and can count on high occupancy rates. It creates a long term perspective for the municipality and the whole region by offering employment and additional income for farmers and the local industry. Furthermore, the holiday village is a market area for local

gastronomic specialities such as local cheeses.

The Reka holiday village Urnäsch is a successful model for developing tourism in harmony with the population. The sustainability aspect of the hotel has been achieved due to the close cooperation of tourism with the municipality, local agriculture and industry as well as the respect of environmental standards for the construction. Fortunately, the project helped the development of further activities as for example the construction of a modern milk manufacturing enterprise and other offers of agritourism. The vision of Reka to provide holiday opportunities for families with low income is certainly as exemplary, as it also promotes tourism in economically weak municipalities.

www.reka.ch; www.urnaesch.ch



Figure 26: Reka-Feriedorf Urnäsch

The Albergo Diffuso (I)

An Albergo Diffuso is a particular type of hotel conceived to provide guests a unique experience of living in a town or a village. It provides all the services of traditional hotels (welcoming, assistance, common spaces, meals), although the rooms are scattered around the historical centre or the main conglomeration (where the reception, the common spaces, the restaurant are often located). The rooms and/or apartments are set within palaces and apartments which, being part of the historical centre, and being appropriately restored according to the local culture, immediately provide the sensation of "being local".

The innovation originated initially in Carnia in the Italian Region Friuli Venezia Giulia, in 1982 within a technical Working Group whose aim was to recover small centres which were destroyed after the earthquake that devastated the territory in 1976.

The main advantages of the Albergo Diffuso, compared to traditional hotels are:

1. It generates a high quality tourist product, expression of local areas and territories
2. It does not generate negative environmental impacts (nothing new has to be built, existing houses must be restored and networked).
3. It helps to develop the local tourist supply and create a network among them.
4. It increases sustainable tourist development in internal areas, in villages, hamlets historical centers and off-beaten track areas, increasing the supply on the tourist market.
5. It contributes to stop the abandoning of the historical centres.

The first Albergo Diffuso was created in Sauris which is also one of the Alpine Pearls. The approach was successful and in the past years several variations to the original formula (such as the "Paese Albergo" of St. Marcel (Aosta), which combines the availability of free



Figure 27: Sauris (I); © www.visititaly.it

beds in private houses with local food and culture) have been created.

www.albergodiffusosauris.com/en/home

Associazione Nazionale Alberghi Diffusi, www.alberghidiffusi.it/en

Albergo diffuso Carnia Comeglians (Friuli Venezia Giulia, Italy), www.albergodiffuso.it

Albergo diffuso Altopiano di Lauco, www.albergodiffusolauco.it

Other alberghi diffusi in Carnia (Friuli Venezia Giulia, Italy), www.clubalbergodiffuso.it/pagine/cartina.html

Paese Albergo St. Marcel (Aosta valley, Italy), www.paesealbergosaintmarcel.it/

Mountain women association – scattered hotel in the historical center of Ornica (Bergamo, Italy), www.albergodiffusoornica.it.

Muse (Valais, Switzerland) recently opened a test house, mase.ch/fr/index.php



Figure 28: Vigilus Mountain Resort – Lana; www.vigilius.it/en/the-vigilius/12-0.html

Vigilius Mountain Resort – Lana (I)

The five star design hotel Vigilus Mountain Resort is embedded in the surrounding landscape of the car-free Vigiljoch in South Tyrol. Accessible by cable car within a few minutes from the village of Lana in the Adige valley, the hotel features as a “wooden house of modernity” and has been committed to its ecological approach from the very beginning. It manifests a genuine and deep-felt respect for the environment and the surrounding nature through its nature-based construction methods and the sustainable use of local resources.

BAKBASEL Study, 2011

The following paragraphs are based on estimated figures.

The independent Swiss economics research institute, BAKBASEL (www.bakbasel.ch) (State Secretariat of Economic affairs of Switzerland; SECO, 2011) estimated that the number of tourist beds in the Alps is 7.3 million. Of the total, 3.7 million beds are considered fall into the second homes category. In parallel, the number of hotel beds is 1.2 million in total. Only one out of 6 accommodation beds is a hotel bed.

Parts of guest beds in the Alps by types of accommodation

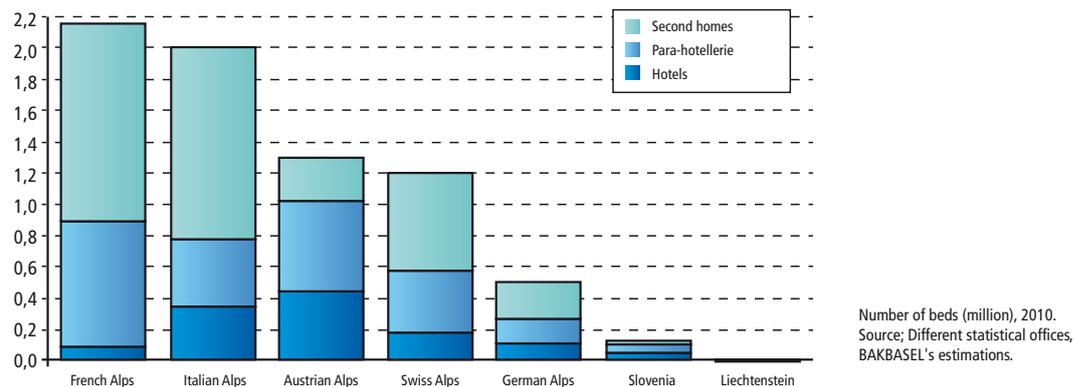


Figure 29: Parts of guest beds in the Alps by types of accommodation; BAKBASEL (SECO, 2011)

According to BAKBASEL sources (SECO, 2011), accommodation beds represent the highest figure for the French and Italian Alpine tourist areas, with a total of 2 million beds.

In the Austrian and Swiss Alps the number of beds is lower. These two areas respectively count about 1.3 and 1.2 million accommodation beds (SECO, 2011). According to ARE (2006), almost 12% of the Swiss housing stock is accounted for by second homes, with a rate of over 30% in Cantons which depend heavily on tourism and over 50% in many municipalities. For Austria, commercial beds are the main accommodation means (hotels and para-hotel structures) with approximately 80% of bed capacity.

Overnights in the Alps by type of accommodation

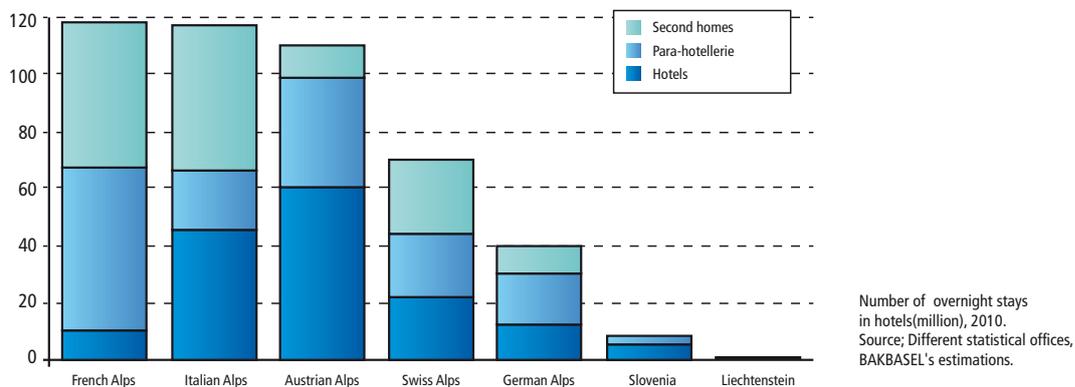


Figure 30: Overnights in the Alps by type of accommodation; BAKBASEL (SECO, 2011)

In total, taking into account BAKBASEL calculations, the volume of demand is estimated to 464 million nights in 2010 in the whole Alps. Contrary to the figures of accommodation beds, accommodation nights are equally divided into 3 types of accommodation: hotels and para-hotels each represent 34% of the nights, and the nights in second homes account for 31% of the whole demand (SECO, 2011).

Seasonality of tourism

Apart from a straightforward description and definition, it is difficult to assess the share and importance of each season in terms of leisure and discovery activities. Nevertheless, national statistics for overnight stays and generated revenue give a good idea of seasonal tourist activity. Nowadays, the distribution of turnover between the summer and winter seasons varies from country to country.

In France, the volume of overnight stays and revenue from summer tourism now exceed those for winter tourism. Of an estimated annual turnover of € 9 billion, € 5 billion is generated in summer. Where hospitality is concerned, the proportion is identical, with 60% of overnight stays (out of a total of around 150 million) deriving from summer tourism (ODIT, 2008). In the French Alps, however, winter tourism remains dominant.

In Slovenia, there are no specific measures for lowering down the seasonality in mountain destinations and the so called "cold beds" because tourist companies do not stress that as a being a big problem. Besides, the summer and the winter season in Slovenian mountain destinations are distributed equally, whereas in the last years, the summer season has been longer due to Alpine recreational and extreme sports tourism.

According to BAKBASEL (SECO, 2011), between 1995 and 2010 in Austrian Alpine regions, the winter demand has increased similarly as the whole Alps (+16,7%; this figure concerns the increase of overnight concerning the whole period of 1995-2012), whereas summer season has

witnessed a reduction in demand. In 2005, the turnover for winter tourism in Austria was around € 10 billion (ODIT, 2008) and the overnights were for the first time higher than the one in summer (cf. Statistics Austria 2010, www.statistik.at). Nowadays the two seasons are more or less equal.

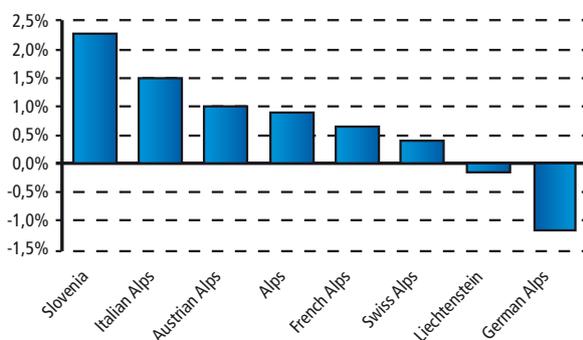
In the case of Switzerland, according to the figures for 2010, 20 million out of the 36 million overnight stays spent in hotels related to the summer season, a proportion of 55%. In the same year, revenues from Swiss tourism amounted to over CHF 15 billion (www.bfs.admin.ch), the equivalent of € 10 billion at the exchange rate applicable at the time.

D.2.1.5 LEISURE AND DISCOVERY ACTIVITIES

A first embryonic tourism in the Alps started in the 18th century for elite groups interested to the "pleasant horror" that Alpine cliffs were causing in the Romantic minds. The change from this Romantic perspective to the spirit of the first Alpinism was very fast (MacFarlane, 2005).

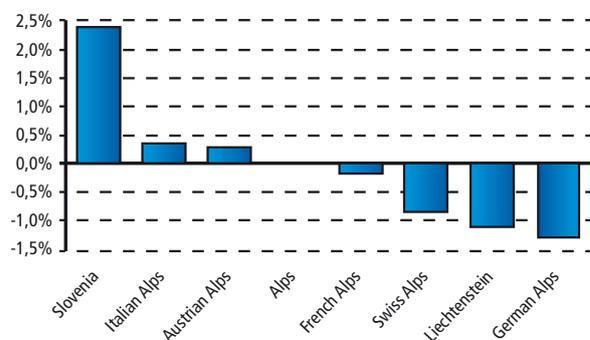
Tourist and leisure activities in the Alps really took off in the 19th century, when spa resorts became popular, also largely due to the lasting Romantic appeal of mountain grandeur. At the beginning, mountaineering in the Alps was also important for scientific reasons, connected to the building of mountain huts and trails. Most visitors then used to reach mountains in the summertime. With the advent of the railways in the 1850s, a clientele of city dwellers began to arrive to enjoy the pure Alpine air. Winter sports began to develop seriously in the 20th century, with the gradual appearance of more and better organized skiing facilities. Snow and ice-related sports took off between the two World Wars, experiencing

Development of overnights in hotels in winter (November - April)



1995-2010 (%)
Source: Different statistical offices

Development of overnights in hotels in summer (May - October)



1995-2010 (%)
Source: Different statistical offices

Figure 31: Development of overnights in hotels in winter (November - April) and summer (May-October) seasons (average growth of overnights); BAKBASEL (SECO, 2011)

an explosion in popularity in the 1930s (Rolland, 2006). In the latest decades, an increasingly differentiated tourist offer is interesting the whole Alps, with new sports and activities becoming more and more important (Bätzing, 2005).

Since World War II, new forms of tourism have developed (e.g. spa-related tourism, ecotourism, cycling holidays, farm-holidays, wine-and-food-tourism etc.) due to new expectations of visitors, and this has led to a diversification of outdoor summer activities (e.g. mountain-biking, rock-climbing, canyoning, paragliding etc.). As far as the winter season is concerned, a similar phenomenon has occurred: facilities for Alpine skiing have continued to develop and also other sports such as cross-country skiing, snowshoeing, tobogganing, heli-skiing and snowboarding developed (SAB, 2010).

Global human activities, tourist and non-tourist, have considerable influence on these winter and summer sports. Maybe one of the effects of climate change is that very likely a growing number of low-altitude Alpine ski resorts will partly no longer be able to offer sufficient snow cover throughout the winter season, even if they have the facilities to produce artificial snow (Angelini & Cetara, 2007; Bürki, 2003). In this sense, climate change effects are already having an impact on leisure and discovery activities (OECD, 2007 and 2008).

Although climate change has harmful social, environmental and economic consequences (e.g. increased pressure on resources, increased infrastructural costs), it also opens up fresh potentials (e.g. development and diversification of non-snow-based activities and summer holidays). Mindful of changes in customers' expectations and the need to improve the quality of their services, many Alpine regions have chosen to diversify their tourist activities, in particular by creating and making use of nature reserves. This type of investment is already proving profitable in both summer and winter.

Ski Areas: ski lifts, energy and artificial snowmaking

Ski areas are confronted with quite specific requests of clients towards activity offers and infrastructures. This demand generated nevertheless different actions of ski-destinations in the second half of the 20th century. In general the client's requests became more multilateral, meaning that today a ski tourist no longer skies from 6 to 8 hours a day but only 4 to 6 hours a day (Reynaud, FIANET, 2012). Additional activities are seen as complementary and not as substituting skiing. The costs for electricity for ski lift operation are about 8-10%

(other: 30-50% for salaries, and 10-20% maintenance of working material). These high payments trigger energy efficiency methods and in 2012 led to a model on good practices "Mountain in motion" which has been signed by numerous ski areas in France (Reynaud, FIANET, 2012).

Even though ski areas do not always consider climate change as one of the main challenges because the time frame for the change is largely above the economic time (rentability of a ski-lift is around 20 years) artificial snowmaking is the most widespread adaptation measure to climate change in the Alps, due to the key-role of snow for Alpine winter tourism offer. Nevertheless, responses to the diminishing guaranteed snow cover of destinations at lower elevations also comprise diversification of offerings. For instance, a trend towards all-year tourism can be observed in some parts of the Alps.

Due to its large demand of water and energy resources, artificial snowmaking is cost intensive although it seems to be profitable for most of the skiing areas. In the last two decades hundreds of millions of Euros have been invested into this technology, but thinking that all the slopes are equipped with artificial snowmaking facilities is a mistake. In 2004, 27% of the total skiable area in the Alps was covered by such facilities (CLIMCHALP Project); nowadays the total share is increased and the greater part of ski resorts are equipped with artificial snowmaking facilities in the most critical parts of the ski domain (e.g. 76.9% of resorts in Italy in 2007, whereas the 40% of the total skiable area was covered by such facilities in 2004, MATTM and EURAC research). Snowmaking has been and will be an important tool to deal with weather variability, partially compensating for the projected decline in natural snow (Scott & McBoyle, 2007).

Operational costs depend on energy and water consumption and are linked to temperatures (higher temperatures entail greater consumptions and costs; OECD, 2007). Considering a seasonal energy consumptions of about 25,700 kW/ha (Conseil General de l'Environnement et du Developpement Durable, Badré, Prime, Ribière) and the Italian prices for energy in 2007 (medium final price of electric energy on the market, from the "Autorità per l'energia elettrica e il gas", 2008), an annual cost of € 1,880 per ha could be estimated, resulting in an energetic cost of about € 45,000 per year in a medium ski domain (40 ha of which 24 equipped for artificial snowmaking, Regione Autonoma Valle d'Aosta, Società Meteorologica Subalpina). The costs of water ranges from € 284 to € 516 per ha/per year², but nowadays only few ski areas buy water from the network (10% in France

2. Elaboration on Italian prices (Federutility, 2009) from data WWF (WWF ITALIA, *Alpi e turismo: trovare il punto di equilibrio; Collana Ecoregione Alpi n°1, Milano, 2006*) and Marnezy (MARNEZY ALAIN, *Alpine dams: from hydroelectric power to artificial snow, In: Revue de Géographie Alpine, Mars 2008, Tome 96 n°1*)

in 2007/2008, Marnezy, 2008), being more economically advantageous to build small private basins.

Energy demand, water consumption and ecology as well impacts on landscape are the main externalities to be taken into account (Abbegg in: Weiermair et al., 2011).

Energy consumption for artificial snowmaking is generally not extremely high, e.g. representing the 9% (16.4 GWh) of the domestic annual consumption of electricity in Valle d'Aosta (Regione Autonoma Valle d'Aosta, Società Meteorologica Subalpina, 2006).

Water consumptions estimates are extremely different, ranging from 2,200 m³ per ha/per year (WWF, 2006) to 4,000 m³ (CIPRA, 2004; Marnezy & Rampnoux, 2006). These data clearly depend on the year taken into consideration, although there is a general agreement in considering a production of 2-2.5 m³ of snow for 1 m³ of water (Marnezy & Rampnoux, 2006). If on the one hand water consumption can be locally significant (i.e., in Davos/CH it represents 21.5% of total annual water consumption and in Scuol/CH the 36.2%; Abegg, 2011), on the other hand it must be said that the greater part of ski areas are creating private basins (which allow energy savings and do not influence water availability in periods of scarce flows and peak demand but have a major impact on landscape; Marnezy & Rampnoux, 2006) and that more than 2/3 of water comes back to the river basin with some weeks delay, whereas only the 30% is really "consumed", being lost due to the evapo-transpiration (De Jong, 2007).

Other impacts of artificial snowmaking to be considered depend on the snowmaking facilities as a whole (thus taking into account snow guns, reservoirs, withdrawals and

pumps, water piping and electric circuits, refrigeration and electric plants, warehouses etc.; APAT, 2007), and on the consideration of the impacts on slope soils (Wipf et al., 2005) and surrounding vegetation (OECD, 2007, p.48).

Artificial snowmaking can be considered as an adaptation strategy in particular in a short-medium period, due to increasing temperatures forecasted and, consequently, also increasing costs and technical difficulties in maintaining snow. Other less resource-intensive technological measures to adapt, while maintaining a skiing-oriented strategy include:

1. slope design (landscaping) and grooming, in order to better take advantage of the topological characteristics of the ski area;
2. snow farming, which implies the creation of snow deposits;
3. concentration of ski areas at higher altitudes and glaciers and development of new cable-cars (Elsasser & Bürki, 2002).

The latter is an extremely delicate issue given that: (a) the environment at higher altitudes is more fragile and the risk of natural hazards is greater; (b) the cost of investments and maintenance is higher and can increase the station indebtedness; (c) the impact on the landscape also increases (OECD, 2007).

Other solutions for the adaptation of Alpine winter tourism to climate change could be founded in behavioural and co-operational strategies, risk-alleviating strategies, extreme strategies (Elsasser & Bürki, 2002; Elsasser & Messerli, 2001).

Examples of good practice

Auditing in ski areas and ski stations

Many stakeholders of the skiing industry (stations, private operators, ONG) care about improving their practices, for a better economic performance, to meet of their customers' expectations and to preserve their environmental territory. Auditing their practices and their management is one of the numerous ways to achieve that.

Some interesting experiences are on the way in the Alps, but they are relatively recent and require more time to analyse their real effectiveness.

Auditing in ski areas (FL)

A broader approach is the eco-audit "Auditing in ski areas" of the foundation "pro natura – pro ski" in Liechtenstein. An award is given every second year to a ski area which is ready to implement activities improving their ski areas (e.g. preserving biotopes and habitats) and avoid its negative impact on environment. The process is firstly to do an environmental assessment, to develop an environmental program and an environmental management system to finally formulate an environment declaration.

www.skiaudit.info/en/home.html

France Ski Areas: the charter of good practices (F)

The French ropeway society (France ski areas) is searching to implement good practices to control electric consumption of the tourist stations.

After a careful planning with the stations and Electricité de France (EDF), since 2010 a charter of good practices has been drawn up and is starting to be implemented in the main Alpine stations. This charter contents are as follows:

- nominate a referent person inside the station or society;
- implement tools of electric energy control;
- set up an eco-driving of the ski lifts;
- set up an eco-production of artificial snowmaking;
- examine the bills and contracts of the electric furniture;
- limit the reactive energy and adapting with the electric network ERDF;
- reduce the heel of consumption;
- integrate the energetic performance into the new project specifications;
- optimize the existing installations;
- contribute to the good practice exchanges with the whole profession.

The sustainable development charter in mountain resorts (F)

Since 2007, the National Mountain Resorts Mayors Association (ANMSM) has worked with the ADEME and the NGO Mountain Riders to implement a "national charter in favour of sustainable development in mountain resorts". This charter is opened to all mountain resorts and gives a global framework of assessment, governance and actions adaptable to local specificities.

In 2011, 50 resorts signed this charter which led some of them to implement an ongoing improvement policy by taking four steps: appointment of an environmental supervisor inside the resort authorities; carry out a sustainable development diagnosis; creation of a local board whose members are of different origins, such as associations, professionals, officials; draft and implement an action plan for 3 and 10 years from now.

The "eco-guide" of mountain stations and the "green snowflake" label project (F)

For the past six years, the NGO "Mountain Riders" has helped 100 mountain resorts assessing their activities thanks to an "Eco Guide" which gives an evaluation about actions promoting sustainable development. The assessment is based on several criteria defined in collaboration with resorts professionals and experts in fields such as waste, recycling, energy, transport etc.

The association aims at developing an "Eco Label" for mountain resorts to optimize its services. The "green snowflake" will be an environmental and social label rewarding resorts' activities for sustainable and innovative policies. To award the label, an independent body will audit mountain resorts. Depending on the score obtained (through an assessment process with a very high standard of commitment) the "flake" will be awarded to resorts together with an audit document.

Touristic diversification in the valley Argentière-La-Bessée (F)

Numerous examples of touristic diversification encouraging alternatives activities to ski, in winter as in summer, have emerged in Alpine countries. Among these examples, the example of Argentière-La-Bessée (Hautes Alpes – France) has been distinguished in 2009 by the Foundation Pro Natura - Pro Ski, already mentioned above, and in the framework of the sustainable tourism competition organized by the Alpine Convention. Mountain and sportive tourism professionals have settled in this former industrial valley, which is currently under reconversion. They have developed various leisure activities some related to water, such as a white water stadium internationally known, canyoning, or waterfalls ice climbing and other activities such as hiking, rock climbing or mountain biking. This municipality is called "Porte de la Haute Montagne/ High Mountain Door" and one part of it is located within the Ecrins National Park.

Tourism in protected areas

At the present time, parks and nature reserves – of various size and equipped with different levels of protection depending on the country concerned and existing arrangements – are ideally suited for sustainable tourism, as the traditional activities performed there (e.g. mountain agriculture, forestry) are compatible with leisure and discovery activities, in both summer and winter. Moreover, nature reserves often have a complementary mission of fostering regional economic development, in parallel with their role as conservation areas (www.alparc.org).

www.champagricola.fr, www.valais-terroir.ch

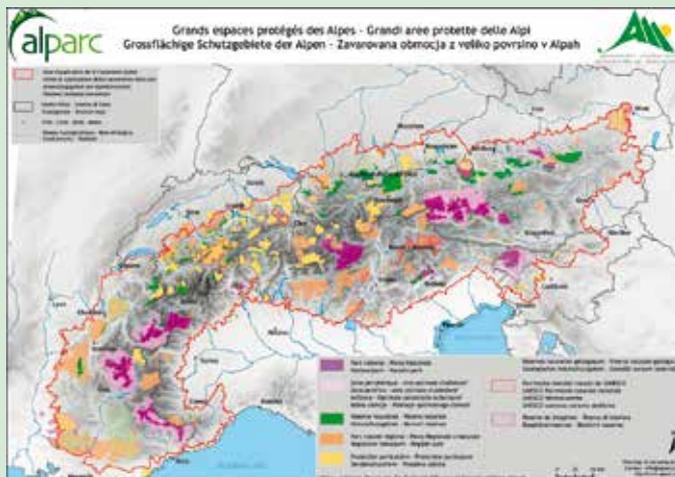


Figure 32: Map of large areas with protected status in the Alps (source: www.alparc.org), Version: February 2012; Captions: Area of application of the Alpine Convention; National park; Town Hydrological network National park; Peripheral area – optimal membership area (France only); Nature reserve; Regional park; Special protection; Geological conservation area; UNESCO World Heritage Site; Biosphere reserve

Dobratsch - the first Nature Park in Carinthia (A)

Until the 1970s, the Dobratsch ski area was important for the regional economy and even had a FIS ski run. However, a strong decline in snow heights in the 1980s seriously decreased the profitability of the lift companies. Artificial snow infrastructure seemed to be the only solution.

Since the lift operators were unable to finance the new artificial snow infrastructure they depended on public investments from Villach. In 1995 and 1996, the town council decided not to invest into artificial snow, financing only basic ski activities. It based its decision on the water protection regulation. Finally the crucial turning point came in 1996 when the Audit Court produced a report in which it opposed water protection to artificial snow. It stated that the drinking water supply for the town of Villach would be endangered by water overuse for artificial snow production from the protected Dobratsch springs. In 1998 the ski area was definitely closed. By 2002, the dismantlement of the lifts began and in autumn 2002, Dobratsch was officially opened as the first Nature Park in Carinthia.

The park is now thriving and advertised as a unique winter concept without lifts. It has received the Nature Park prize 2008 and an environmental prize in 2010. In the summer 2012, the newly renovated positive energy mountain hut Dobratsch was opened near the mountain peak, only accessible on foot.

Nowadays Villach sets an example for water management. It is the first Alpine town that enables its citizens to consult their household water consumption via mobile phone and to compare it with the national average (Koenighofer, 2007).

Idrija, Alpine town 2011, Geotourism (SI)

Idrija is a small mining town in the Slovenian foothills just south of Triglav National Park, at the border between the Alps and the karst region. On 30th June 2012, with its 500 year tradition in mercury mining and lace making and its unspoiled nature, Idrija was declared a UNESCO World Heritage Site together with the mine Almaden in Spain. In the past, Idrija mercury mine was the second largest mine in the world and nowadays the town is the center of high-tech



Figure 33: Old city center of Idrija



Figure 34: Anthony's shaft of Idrija

industry with an almost zero unemployment rate. The city obtained the title “Alpine town of 2011” for its commitment to climate protection, the local energy production based on renewable energies with the target of reducing its emissions of CO₂ and its project on reducing light pollution. When Idrija was holding the title of Alpine town, the Geopark Idrija was established. Its purpose is the protection of Idrija geological, cultural and natural history and the development of sustainable tourism by expanding the bicycle path network and hiking routes.
www.geopark-idrija.si

The Qualità Parco Club (I)

Founded in 2005 through the initiative of a number of hoteliers whose business has been certified by the Adamello Brenta Natural Park, the Club’s commitment is that their facilities continue to be productive, with respect for and promotion of the environment, and without neglecting their social responsibility toward the surrounding local area, their employees and their guests.

Every hotel is committed to provide: (1) a particular sensitivity to environmental sustainability, careful and economical use of ecological detergents, energy saving systems, lower emissions of polluting gases, limited waste, differentiated refuse collection etc.; (2) friendliness: every hotel is ready to welcome you and point you in the right direction to discover the park and culture of Trentino, not to mention the offer of enticing regional dishes and the delicious locally grown produce; (3) the Park Card, an electronic card giving visitors access to a vast range of offers to enjoy the countryside and discover the local culture and food, with around 50 free, unlimited (with the exception of the museums) services: car parks, entertainments, excursions, shuttle bus tickets, admissions to the Park Centres, museums and castles, tastings of local products etc.; (4) a Park Ranger on hand at the start of the week to organise a tailor-made nature holiday for guests and provide information on the Adamello-Brenta Natural Park and the events taking place during the holiday period.

Because of its characterization, the Club is the only project in Italy that has earned recognition by the European Union as employing “Good practices of corporate social responsibility”. It has also recently obtained the sponsorship of the UNESCO-Dolomites Foundation.

www.visittrentino.it/en/articolo/dett/filosofia-club-qualita-parco
www.visitvaldinon.it



Figure 35: Adamello Brenta Natural Park



Figure 36: Logo Qualità-parco

Bohinj Park Hotel, Energy efficiency hotel (SI)

Bohinj Park Hotel was built with the highest level of awareness of the environment and is currently one of the most advanced and energy efficient hotels in Central Europe. This is the first Eco-hotel in Slovenia to have observed high environmental protection standards in the construction.



Figure 37: Liechtenstein adventure pass

Adventure Pass “Liechtenstein all inclusive” (FL)

The Liechtenstein Adventure Pass is a sustainable way to discover Liechtenstein. It offers free admission to 23 exciting attractions. These range from museums to outdoor activities and wine tasting. It includes all public transport to reach the attractions without the use of a car. The offer is valid from one to three days at very low price. For detailed information on the offer see:

www.tourismus.li/pdf_doc/Erlebnisspass_Web.pdf

What the mountains taste like

Up to now 88 huts in the Alps are participating in the campaign “What the mountains taste like”. The objectives of the campaign is preserving the cultural landscape created by mountain farmers, promote the regional economy, and use of resources and energy responsibly (e.g. short distances).

The participating hut keepers commit themselves to offer at least one meat dish, one vegetarian meal, one non-alcoholic and one alcoholic beverage of local or regional production. In reality many huts offer much more, for example aromatic “Speck”, farmhouse bread, fresh butter, tasty mountain cheese, buttermilk and liquors. All the food of this campaign is prepared directly in the huts by the hut keepers, desirably with a high rate of organic food.

With this project the Alpine Clubs (Alpine Club of South Tyrol, German Alpine Club, Austrian Alpine Club) and the participating hut keepers help to secure the livelihood of mountain farmers and, by doing so, it also helps to preserve the cultural landscape with the typical Alpine pastures.

The participating huts are marked with an oval “cow motif” label and glasses, cups, wooden plates, blankets with the cow motif are sold in the huts, too.

At the moment the three participating Alpine Clubs are working on improving the campaign and a brush-up of the marketing material in order to ensure the quality of the food and to motivate hut keepers by giving them the chance to become proprietor of the huts.



Figure 38: What the mountains taste like
© Gschwendtner und Partner, München

www.alpenverein.de/huetten-wege-touren/huetten/huettenkampagnen/umwelt-kampagnen-entwicklung_aid_10220.html

www.alpenverein.at/portal/Huetten/Huettenbesonderheiten/So_schmecken_die_Berge.php

www.alpenverein.it/de/projekte/so-schmecken-die-berge-15_8017_141703.html

Red Rooster consortium (I)

One third of total area in South Tyrol is farmed. This is in addition to woodland and fallow land. The number of farms, from the smallest to the largest, is approximately 26,500, including 12,800 cattle farms, to give a few statistics on South Tyrol farming country. Agriculture has always been very important in South Tyrol, whose vineyards and orchards extend up to altitudes of 1,000 metres above sea level. Most farms at altitudes of over 1,000 metres are dairy farms. In South Tyrol agriculture is small scale, which means that it is becoming more and more difficult for farmers to make a living exclusively from farming.

An increasing number of farmers are finding it necessary to earn additional income from non-farming activities due to the falling prices of their products. The necessity of working both on the farm and elsewhere puts family life under strain, therefore the “Red Rooster” association aim is to support local farmers by creating extra income from the farm, thus guaranteeing the sustainable development of South Tyrol’s rural culture and putting people in touch with the rural world. “Red Rooster” tries to ensure that farm life carries on in a sustainable manner with the successful combination of agriculture and tourism. The “Red Rooster” trademark was created in 1999 by the Farmer’s Union of South Tyrol for farms offering Farm Holidays in South Tyrol.

From 2003 “Red Rooster” has also competed in “Farm Inns and Bars” and “Quality Farm Products” in South Tyrol. Its three mainstays do not only generate additional income for local farmers’ directly from their farms, but they benefit holidaymakers too. Strict criteria and regular monitoring by “Red Rooster” ensure the highest quality for guests and



Figure 39: Red Rooster: extra income from the farm; © Südtiroler Bauernbund



Figure 40: Red Rooster: quality for the guests; © Südtiroler Bauernbund

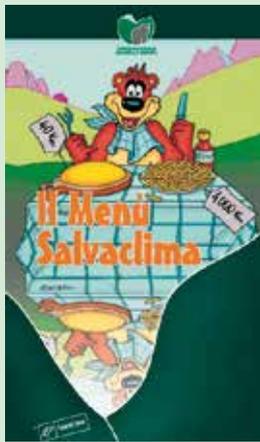


Figure 41: Save the climate menu
© Adamello Brenta Nature Park

the continued survival and development of South Tyrol's rural culture – for future generations as well. The most important basic criteria at a glance are the authentic, unspoiled nature in picturesque countryside, personal atmosphere, family-friendly, small farms, pleasant, comfortable environment involving natural materials, "visible" direct experience of agriculture, farm produce, an "hands-on" rural experience and good value for money.

Menu salvaclima ("Save the climate menu"): Parco Naturale Adamello Brenta (I)

The project "Menu salvaclima" has been running since 2008. This is a special menu, currently proposed by nine participating restaurants in the area of the natural park of the Adamello Brenta group, which reveals, for each dish, the climate impact measured in kilograms of carbon dioxide emissions. It encourages customers to choose a menu which is "environmentally friendly" for the climate.

www.pnab.it



Figure 42: Alpine Huts of taste © APT – Visit Trentino

I rifugi del gusto ("The Alpine Huts of Taste") (I)

The Alpine Huts of Taste is a communication event organized by the Department of Agriculture, Forestry, Tourism and Promotion of the Autonomous Province of Trento in collaboration with other institutions. At the heart of the initiative there is a special menu dedicated to local products and dishes from Trentino. This aims at promoting the extended opening hours of facilities at high altitude. In 2012, 44 Mountain refuges have been opened - from September 22nd to October 7th - to accommodate clients for high quality restoration in order to renew the culinary traditions of Trentino.

www.visittrentino.it/i-rifugi-del-gusto

Campaign "Respect your limits" (CH)

Snow sports on slopes have become more and more popular over the years. For animals and plants this development means increasing danger and stress during the harsh winter season. In order to avoid conflicts and to let winter sportsmen carry on enjoying nature, they should change their behaviour into an environmental-friendly one. The campaign "Respect your limits" is promoted by the Swiss Federal Office for the Environment, the Swiss Alpine Club and different Partners of the Outdoor industry and the tourism sector and has the aim of raising awareness about these issues among winter sportsmen. The campaign enforces four simple rules that winter sports enthusiasts must respect:

1. Respect rest areas and protected areas for wild animals



Figure 43: Poster "Respect your limits"

The campaign originated in the Austrian region of Vorarlberg, where it was launched by the regional government in 2003. In the meantime, other Austrian regions as well as the German Bundesland Bayern and South Tyrol in Italy are conducting similar projects.

www.respektiere-deine-grenzen.ch



Figure 45: Environmentally friendly ski mountaineering

the association as well as signage systems starting at the parking places of ski mountaineering destinations help to guide the tourists to the best routes. This has led to a reduction of conflicts between off-slope skiing and nature conservation. For more info write to Manfred.Scheuermann@alpenverein.de



Figure 44: Cover of brochure "Respect your limits"

2. Stay on assigned tracks and pathways
3. Avoid forests edges and snow-free areas
4. Put a leash on dogs, especially in the forest

The cooperation between public and tourism actors shall help to find a win-win situation for all: the outdoor industry, winter sportsmen and wild animals. It is based on respect and appreciation. For Switzerland, the partnership of protection and exploitation institutions in this amplitude is unique.

Environmentally friendly ski mountaineering (D)

Environmentally friendly ski mountaineering is a project launched by the German Alpine association (DAV) in 1995 to steer ski mountaineers to environmentally sound routes. These routes were developed on the basis of comprehensive research work on the level and the impacts of disturbances caused by skiing to wild Alpine animals in the winter season, combined with the local knowledge gathered in a broad participatory process bringing together public administration and private actors in the region. All environmentally friendly routes recommended have been part of the 22 regional maps of the German Alpine association since 2012. Information and publicity work addressing the members of the

D.2.1.6 FOLLOW UP OF THE TRIP

As mentioned in chapter D.2.1.1 “Information on the trip; Booking”, the take-off of information and communication technologies (ICTs) in the final decade of the 20th century has caused a revolution in terms of the provision of tourist information and the booking of goods and services. It has transformed the guest/visitor into a marketing vector of Alpine resorts, and indeed of all tourist destinations.

The traditional and still effective passing on of information by word-of-mouth is now supplemented and given new vigour by the interactive and participatory Internet 3.0 networks (extension of Web 2.0’s participatory technologies and social networks as e.g facebook into 3D space). Through these channels, tourists and day visitors can not only seek reliable information about a destination, they can also express their (favourable and unfavourable) opinions on their experiences and the products they have used. The quality of the services offered during a visit or holiday has thereby become an even more determining factor.

As the summary report of the Franco-Swiss Interreg IV A project on innovation in tourism (Rouard et al., 2011) points out, a real re-balancing – we might even say a turning-of-the-tables – is going on between producers and consumers in the field

of tourism. Thanks to the social networks, the development of new functionalities and the use of smartphones, the clients of tourist destinations are effectively becoming co-creators of value. Given that negative comments always have greater influence than positive opinions, the web is reinventing ways of promoting and “selling” a territory, with significant economic interests involved, and the potential for success or failure.

D.2.2 SOCIAL ASPECTS OF TOURISM IN THE ALPS

The presentation of the situation of sustainable tourism in the Alps in the previous chapters has mainly focused on ecological and economical aspects. These chapters would not be complete without talking about the social aspects of tourism, if we intend to tackle all three pillars of sustainable development.

D.2.2.1 TOURISM DEVELOPMENT, DEMOGRAPHY AND EMPLOYMENT

Population development has a long record of boosting demographic growth (or curbing demographic decline) in the

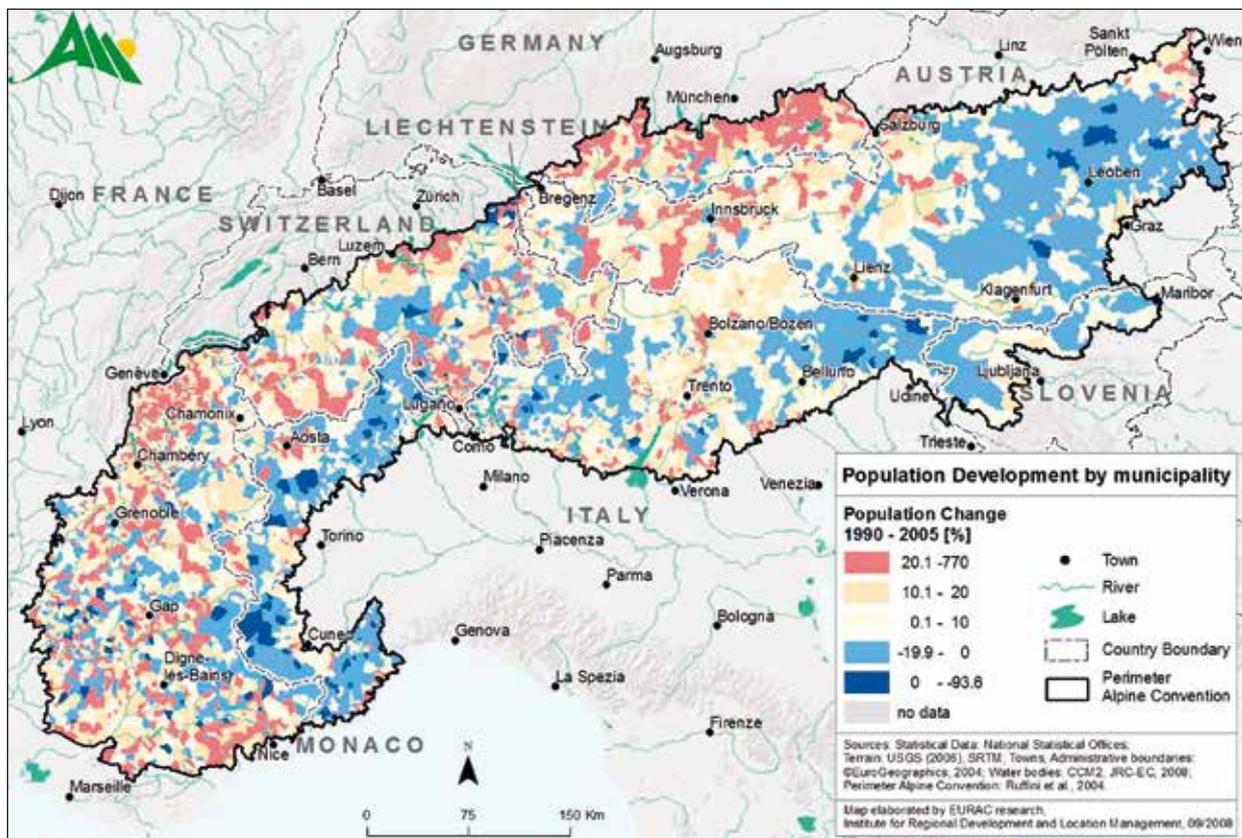


Figure 46: Population development by municipality 1990-2005

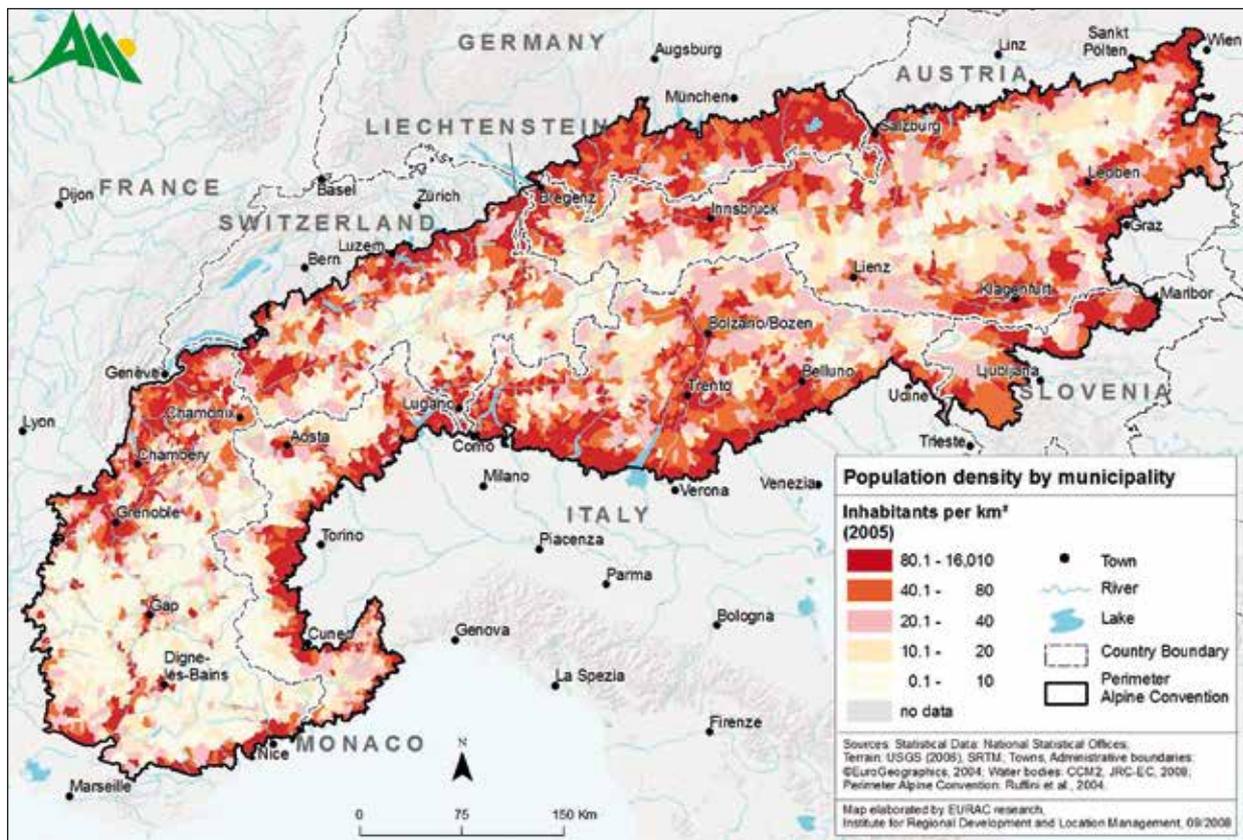


Figure 47: Population density by municipality - 2005

Alps. This is of course especially true for those communities that have become tourist resorts and for the areas that have been directly affected by their success. Indeed, when looking at the geo-demographical maps that summarise the changes in total population experienced by Alpine municipalities over the past decades or even longer periods (Bätzing, 2005), one can easily notice red spots signalling population increase even in those areas, like the Western Alps, that have long been characterized by the blue and deep blue of uninterrupted and often massive demographic decline – and more often than not these red spots correspond to tourist resorts.

A classic example is provided by Davos, whose population jumped from 1,680 inhabitants in 1850 to 8,089 in 1900 and 11,164 in 1930 (Jost, 1951). When growth is so spectacular, the proportion of “locals” is bound to go down drastically. In 1850 the members of the *Bürgergemeinde* (who were mostly people of old local descent) represented about 85% of the resident population, a century later just 15%. Their absolute number, however, had remained almost unchanged. Things may go differently in other resorts. When the qualified positions are filled by specialists from outside, even a highly successful tourist development may largely pass over the heads of the locals, who may still be forced to leave their homeland to be replaced by immigrant skilled labour.

This clearly implies, on one hand, that tourism has created and still creates income-earning opportunities and can play a major role in favouring either a growth or a demographic stabilisation of mountain communities; on the other hand, it may also easily lead to significant changes in the composition of the population, sometimes to the point that it may become difficult to clearly distinguish between a host community of “locals” and a guest community including immigrant workers and, possibly, the tourists themselves (De Rossi & Ferrero, 2000).

These introductory remarks are a reminder that, while the demographic and economic impact exerted by tourism in the Alps can scarcely be underrated, several questions need to be raised. In particular, we may wonder:

- which is the influence of tourism on the labour market in the Alps as well as on unemployment rates (e.g. it could be proven that the agricultural sector remains more stable in touristic areas than in non-touristic areas due to various job opportunities related touristic services? (Streifeneder, 2010)
- how far does tourism development influence everyday need services, welfare regimes, health care and disability services in the Alps?
- which influence does tourism have on cultural development in the Alps?

D.2.2.2. IMPACTS OF TOURISM ON LOCAL COMMUNITIES

In many Alpine regions tourism is of great importance when it comes to the creation of jobs and regional added value. As local tourism enterprises cannot be outsourced abroad, they represent dependable employers.

Apart from the great number of positive effects that tourism implies, locals are sometimes also suffering from high tourism intensities. Some Alpine tourism centres are for instance experiencing an increase in overall demographic pressure and significant seasonal variations in employment. Furthermore mass tourism can lead to high living expenses, land prices and additional taxes due to tourism infrastructures, which may lead to the migration of local residents with a small purchasing power from popular tourist destinations. These examples show that disproportional numbers of tourists compared with locals can be burdensome for communities. Furthermore it is also observed that tourism can turn local culture into commodities. There are examples within the Alpine region where local traditions, customs and handicrafts are reduced to conform to tourist expectations.

Against this background it is all the more pleasing to see the development of a trend towards sustainability within the Alpine tourism, trying to combine economic, ecologic and social interests. Sustainability has become an important marketing trend of the Alps, which is to a large extent attributable to the growing demand for nature and culture holidays as well as for organic and regional products. Fortunately tourism also creates synergies with other economic sectors like trade, construction and commerce sectors, which strongly benefit from the increased demand in tourist destinations. Besides this, in a lot of Alpine regions tourism is characterized by a close collaboration with agriculture. The concept of "Farm holidays" makes a vital contribution to the sustainable development of tourism, as they build on existing rural infrastructures and help to distribute tourism more evenly outside tourist centres. Moreover, "farm holidays" significantly contribute to the livelihoods of many Alpine farmers.

In farm-holiday, families are hosted in farms and share with farmers their everyday life. Sometimes providers consider on-farm vacations as an opportunity for marketing their farm-based products. In addition it can be observed that more and more restaurants and tourism enterprises offer regional food. In Austria, for instance, the initiative "*Genuss Region Österreich*" supports an enhanced cooperation between tourism, gastronomy, agriculture and trade. By linking food with its regional origin and its production process, the relationship between traditional landscape and local food specialities and their production becomes transparent for consumers (www.genuss-region.at). To further encourage the establishment of regional

economic cycles, initiatives of cross-sectoral cooperation should further be promoted within, as well as between Alpine countries.

D.2.2.3 PARTICIPATION AND GOVERNANCE

Tourism is an interconnected economic activity depending on tangible and intangible goods and services of both natural and anthropogenic origin. The issue of tourism development in the Alps cannot be isolated from other relevant and interrelated issues such as spatial planning, water management, energy, transports etc. Therefore, it is necessary to integrate an inter-sectoral perspective into the discourse about tourism planning and sustainable development both at a local and at a regional level.

Furthermore, people have to be involved at different levels – e.g. public decision makers, tourism suppliers, tourists and especially population of the Alpine destinations – much of the possible future outcomes will depend on their acceptance and commitment. Thus, this process of participation is also a process of collective capacity building.

Much can be achieved at local level, while maintaining a regional perspective. As far as the tourist destination level is concerned, it is fundamental to involve the local community in a discussion about the future of their tourism system, and more specifically about the prospects for supporting tourism performances in a sustainable way, and by this promote the elaboration of strategies for local and sustainable development.

Participatory methodologies are particularly indicated in these kind of contexts in order to efficiently manage the stakeholders' involvement in decision-making. For instance, the participation of local actors and experts can be managed through the design of a sequence of steps culminating in one or more workshops for the ideation and discussion of the set of alternative strategies and for their assessment. The workshops should ideally include a representative range of stakeholders and decision-makers and should be chaired in such a way as to be impartial to sectoral interests and to ensure that external knowledge input is also regarded as credible and impartial.

Participatory processes should fulfil some criteria to be successful:

- a structure that allows active participation, e.g. in terms of timing of meetings, frequency of meetings etc.;
- regular information about the process also to those that cannot actively participate;
- external moderation: The decision maker – e.g. mayor – should never be the facilitator of the process;
- informed participation: All available information is distributed to all participants, no one has exclusive knowledge;
- clarity about the use of results: Nothing worse for further

commitment than a participation process which results are not used!

For instance, a participatory methodological framework and a decision support system (i.e. the e-tool) were designed for the ClimAlpTour project, with the aim of facilitating

participatory processes in the field of local development and adaptation to climate change, with enhanced capacity of using scenarios in the process of integration among local and scientific knowledge (mainly developed and tested in Italy).

Preventing the decline of French tourist resorts; Observing, Anticipating, Preventing

Background

In France, listed holiday resorts are classified according to a specific legal framework that defines their eligibility criteria and enables them to benefit from a few specific advantages. The reform of the classification of tourist communities (communes touristiques) and listed holiday resorts (stations classées de tourisme), introduced by law in 2006, gave rise to a new legal framework: diversity of accommodations, quality, access and transport facilities and sustainable tourism.

Challenges

It proved to be essential to measure the attractiveness of French holiday resorts, to meet, on one hand, the new customer expectations and, on the other hand, to face the competition from other destinations. This analysis was intended to provide communities with a dynamic snapshot of their tourist sector and to facilitate the maintenance, creation or renewal of strategic guidelines.

The tool

The study was launched in 2008 by the Interministerial Spatial Planning Unit (Délégation interministérielle à l'aménagement du territoire, DATAR) and by Atout-France, i.e. the French tourism engineering agency. In 2012, it has led to a proposed set of key indicators guiding the structural trends underlying long-term local tourism dynamics. The tool has been tested in the field in six voluntary holiday resorts at different scales and different tourism levels. This research is designed to provide holiday resorts themselves with a standalone tool for assessing their activity according to the decisions that are made and to the constraints or conditions that are imposed on them. The establishment of indicators is organized around two poles: spatial organization (resources and management) and tourist economy (supply and demand).

Indicators spatial organization: Resources and management

SPATIAL LEVEL	ORGANISATIONAL LEVEL
resources	resort management
land use	resource management
tourist density	risks
loading rate	environmental policy
accessibility	tourism investments
residential dynamics	local strategy
jobs	governance
revenues	presence of the tourist destination on the web

Indicators tourist economy: Supply and demand

TOURISTIC LEVEL	ORGANISATIONAL LEVEL
destination offer	customer demand
tourist accommodation offer	number of nights spent
professional product offer	occupancy rate of equipment
poles of attraction	source markets
presence of ancv* providers	price positioning
distribution of the destination	consumption index

*French National Agency for Coupons for holidays

These indicators are based on free available raw data, extending over several years for at least 10 years. They include illustrations (sectors, histograms, radars, curves), namely a folder of about fifty pages. They can then be used by the community according to its needs: feeding a classic SWOT matrix, applying to all or part of the activity of the holiday resort.

The performance of tests has raised awareness on the following:

- the fundamental guidelines of a community that have been undertaken over a long period of time (loading capacity, maintenance of natural areas, employment policy, financial cycle etc.);
- the weight and role played by tourism in the entire community dynamics, since many parameters are outside the tourism sector itself;
- the resort weaknesses (lack of governance, lack of risk measurement, economic and social imbalances, polarization on tourism etc.);
- the relationship between the resort and its surrounding environment (other communities, prices, web etc.).

The establishment of such a tool is a significant investment. The initial data collection for the establishment of the database takes about four months of work, it is necessary to interact with various stakeholders (authorities, internal teams, private stakeholders), to get data over long periods and it is also necessary to have a good knowledge of the local community and its players. According to the volunteering resorts, the results are very positive and the tool is an objective and autonomous strategic decision support for tourism, in the overall community governance. An update every three years should be sufficient.

Interest in Alpine resorts

In 2006, in the French Alps there were 90 listed ski resorts (out of 525 resorts) and 50 potential additional resorts according to law of 2006. Thanks to its flexibility, this tool allows to better understand and take into account new growth factors, (climate change, diversification), but also to identify the existing obstacles slowing down the achievement of a better tourism process (land, water resources, energy). Its reproducibility also facilitates comparisons between holiday resorts and tourism strategies.

D.2.2.4 THE INFLUENCE OF TOURISM ON THE LABOUR MARKET

According to the World Tourism Organization, 100 million people visit the Alpine region every year, a figure roughly corresponding to 12% of the global number of tourists (Urbanc & Pipan, 2011). Notwithstanding these huge numbers, the extremely localized nature of tourist development in the Alps is made apparent by simple figures such as the ones estimated by Bätzing for the 1990s:

- approximately 46% of all accommodation establishments were concentrated in only 5% of Alpine municipalities;
- only 10% of all municipalities (accounting for about 8% of the total population of the Alps) had a tourism-based economy;
- the incidence of tourism was minimal (less than 0.1 accommodation establishments per inhabitant) in about 40% of all Alpine municipalities and it was modest (between 0.1 and 0.5 accommodation establishments per inhabitant) in another 40% of them.

Tourism is today an economic sector of primary importance, playing a major role especially for the inhabitants of the high valleys; it has been estimated, for instance, that in the year 2000, tourism accounted for 35.4% of the GDP of Oberwallis,

the highest part of Canton Valais, compared to just 23.1% for Mittelwallis and 18.0% for Unterwallis (Berwert et al., 2002). More generally, winter tourism generates each year a revenue of about € 50 billion and an estimated 10 to 12% of all jobs in the Alps (EEA, 2005). It can also be observed that the main tourist destinations are by and large characterized by positive migratory and commuting fluxes as well as by the highest employment rates and the highest indexes of job density in the respectively surrounding areas.

Working conditions in tourism

The success of tourism in the Alps, beside intact nature, is based on attractive cultural landscapes and a high-quality tourist infrastructure inseparably linked to the quality of services. Regarding the employment structures of the tourist sector in many Alpine regions, there is an over-average proportion of female employees as well as of younger, low-skilled and migrant workers. Due to the heavy workload, fewer older people are engaged in this sector. Employment in the tourism industry is often characterized by high fluctuation, short duration and hence periods of unemployment. People working in tourism are also often confronted with long and irregular working hours. Besides that, seasonality in tourism

causes higher unemployment rates during off seasons. Compared to other sectors, only a small number of employees in tourism have a permanent job. Due to the high proportions of female workers, the rate of part-time employment is often higher than in other economic sectors. In addition to that, incomes in the tourism industry are often lower than in other sectors. According to experts, the growing competition for jobs, the accessibility of the tourist sector for unqualified workers, as well as illicit employment are the main reasons for these lower payments.

Apart from remuneration, the implementations of continuous employment models or adequate training models during the off season are important challenges. Another issue is the establishment of childcare facilities with adequate opening hours, which would be an important facilitation for working mothers.

To some extent, corresponding efforts and initiatives at regional, national and transnational level to meet these challenges have already been taken but should be strengthened with priority in the future.

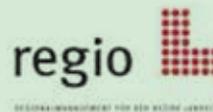
ProFiT – Pro family in tourism; Free child care and consulting service

Started	May 2010 (3 years)
Partners	Employment service Tyrol – Landeck, Labour office Tyrol-Landeck, Chamber of Commerce Tyrol – Landeck, association of childminders, tourism communities of Landeck district.

The INTERREG IV A Italy-Austria project “ProFiT – Pro Family in Tourism” aims at improving reconciliation of family and employment in the tourism sector. An important objective of the project, carried out in the Landeck district in Tyrol, is the improvement of child care services for parents working in the tourism sector. Despite the fact that tourism has always created a significant number of jobs in Landeck, opening hours of child care facilities were generally not coordinated with tourism-related working hours. In the course of the project, child care for people working in tourism could be improved. Ever since then, free, flexible and demand oriented child care facilities for children from 2 to 10 years are offered on marginal day-times, as well as on Saturdays and during holiday periods. A special offer is also the free pick-up service for children from and to the care facility.

Another important part of the project is to raise awareness amongst employees about legal working conditions in the tourist sector. People working in tourism often have to deal with low pension claims due to illicit work and short insurance periods. In order to provide anonymous and free advice for employees on these issues, the consultancy center “JOB ist TOP” was established. In addition to this information events for women seeking employment in the tourism sector were carried out in cooperation with the Landeck employment service. Currently the cooperation with schools in the field of awareness raising is planned in order to inform young people about these issues.

For more information please visit: www.tourismus-profit.eu



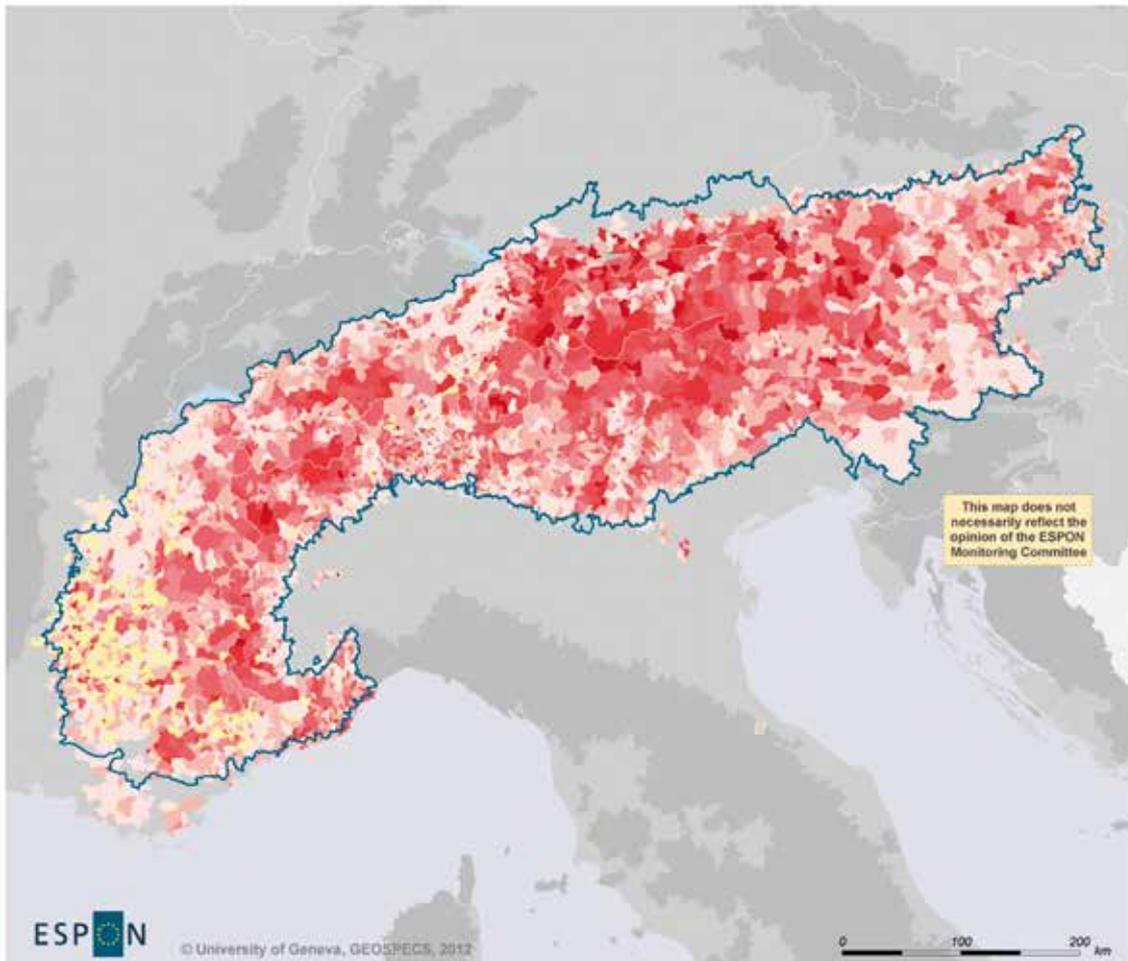
Das Projekt wird
unterstützt von



Contact: regioL – Regionalmanagement für den Bezirk Landeck, Bruggfeldstraße 5 (Landeck) Tel. +43(0)5442-67804, info@regiol.at, www.regiol.at

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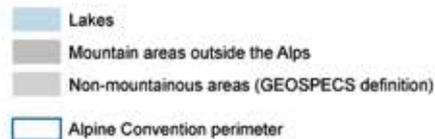
Proportion of employment in hotels and restaurants



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Regional level: LAU2 (except Turkey LAU1)
Source: GEOSPECS, 2011
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except Western Balkans and Turkey (national sources)

Proportion of gainfully occupied persons working in hotels and restaurants

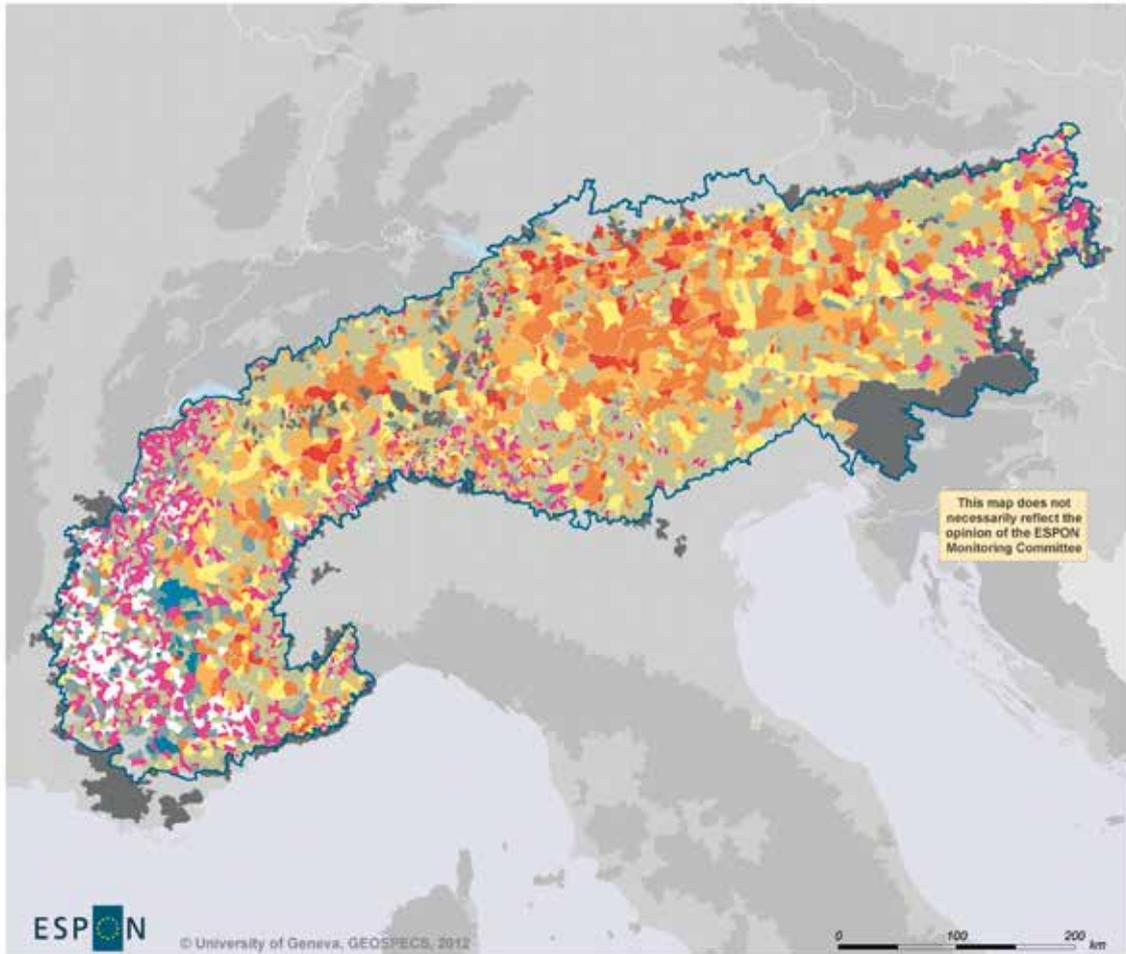


Local employment figures:
Austria (1999), Italy (2001), Germany (2003),
France (2007), Slovenia, Switzerland (2008),
Liechtenstein (2009).

All local figures have been adjusted on the basis
of national figures for 2008 from Eurostat.

Figure 48: Proportion of employment in hotels and restaurants: Regional level: LAU2, Source: GEOSPECS (ESPON: Geographic Specificities and Development Potentials in Europe), 2011, © EuroGeographics Association for administrative boundaries

Comparing different indicators of the local importance of tourism

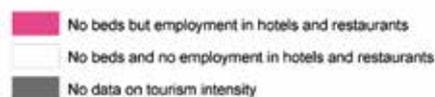


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Regional level: LAU2
Source employment data: GEOSPECS, 2011
Source tourism intensity data: Alpine Convention
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Residuals from linear regression of tourism intensity (number of beds/inh.) and proportion of persons working in hotels and restaurants

Deviations from regression model including LAU2 with beds only



Other

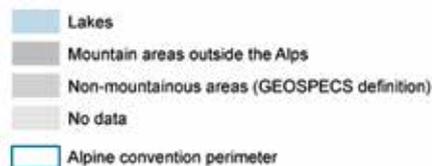


Figure 49: Comparing different indicators of the local importance of tourism: Regional level: LAU2, Source employment data: GEOSPECS (ESPON: Geographic Specificities and Development Potentials in Europe), 2011, Source tourism intensity data: Alpine Convention, © EuroGeographics Association for administrative boundaries

Proportion of employment in hotels and restaurants

Various aspects of tourism provide employment in a wide variety of economic sectors, including those related to transport, property and particularly hotels and restaurants. However, only the latter sector is predominantly related to tourism. Consequently, an understanding of the proportion of employment in this sector gives an insight into the dominance of tourism at municipality level, for which consistent data is available in all Alpine States. Some clear conclusions can be drawn.

Employment in some municipalities is heavily dependent on tourism; with rates over 50% of the employees in the sector in a number of settlements spread across the Alps – but mainly in Austria and Germany – almost all at higher altitudes, i.e., ski resorts. In contrast, there are significant parts of the Alps where employment in this sector is low: often below 10% or even 5% of the employees. More significantly, the lack of employment in this sector in a considerable number of municipalities in the Southern French Alps is notable. These tend to have relatively high rates of employment in agriculture, and ageing and decreasing populations.

Thirdly, employment in this sector appears to be generally higher in the Austrian and German Alps, though there are areas in other countries with high levels of employment, such as the Aosta valley and the Dolomites (I), the Bernese and Pennine Alps (CH), the Zermatt/Saas Fee/Cervinia area (CH/I) and the Slovenian Alps.

The fourth point is that high levels of employment in this sector at lower altitudes are found in relatively few locations, such as around Lake Garda, implying that regional economies at lower altitudes tend to be more diverse. Again, these conclusions clearly show that the importance of tourism in providing employment, and hence in terms of the overall economy, is highly variable across the Alps; though importance does, to some extent, appear to increase with altitude (see Figure 49).

Further analysis of the data shown in Figure 49, in comparison with those of tourism intensity, shows that there are considerable number of municipalities where there is employment in the lodging and catering sector but no beds in commercial establishments (hotels) figure in statistics. This phenomenon can be observed in three areas in particular, though as always only in certain municipalities within these wider areas. Two of these are lower-altitude municipalities in the Italian Alps (particularly in Lombardia) and in the Austrian ones (particularly in Lower Austria); in other words, employment is related to providing food and drink, but not accommodation. The other areas are in the French Alps and pre-Alps. Here, the same conclusion may be drawn, but it may also be influenced by the fact that the data for tourism intensity does not include beds in para-hotel structures or second homes which, in many of

these municipalities, account for a considerable supply of accommodation.

D.2.2.5 AMENITY MIGRATION

The change of status in tourist areas and practices in the context of globalization and post-modernity includes a wide range of phenomena: the utopia and “uchronia” of tourism (rise of all kinds of conflicts and disputes), the search for continuities between practices (recreational, social, cultural, spatial etc.) for holidays and everyday practices; the “touristification” of ordinary places, experimental tourism and neo-situationism; new urban-rural relationships in the context of metropolisation; going beyond the boundaries of tourism through hybrid practices, which mix leisure and travel, cultural, professional and militant times, spaces and activities, the “renunciation” of tourism, and the like.

It also includes new residential practices, known as amenity migration (Moss et al., 2009), implying the passage from the notion of “tourist” to that of “recre-resident”, who is both a resident and a permanent visitor. Whereas “visiting” is an act which defined tourism and implied specific social, cultural and land planning policies, “living in the Alps” has long been defined as opposed. Today this difference is becoming less relevant as the autonomy in the choice of the place to live increases.

For some authors, the search for a “perfect” place to live is then taking over from the quest for tourist paradises and leads to a search for “all-year living in a holiday house” (Viard, 2000), and thinking more and more of everyday life and places in terms of quality and sustainability. The “good life” is then seen as a continuous holiday (Urry, 2002), as well as retirement can be seen as “the longest holidays of a lifetime” (Rodriguez, 2001).

Theoretically, the potential of this cultural innovating process is particularly interesting. On a practical level, it brings however many challenges. In reality post-tourist hybridization is already considered as a basis for converting tourist or rural regions into a context of competitive globalization.

For instance, in the French Alps, winter sport resorts are now integrating amenity migration into their town planning and architectural policies, notably by building more spacious flats that will be able to become main homes, but also by setting up an offer of intensified services for the population, even giving themselves the goal of increasing the number of permanent residents. Moreover, on the outskirts of the large French Alpine towns, conversion of tourism to residential after-tourism is taking place “naturally” by the transformation of tourist accommodation into main homes. A growing “betweenness” then appears through the

generalization of “temporary inhabitants” (Stock, 2004) or “permanent tourists” (Jaakson, 1986).

In spite of this structural change, amenity migration in the Alps is closely connected to “metropolisation” and cohabits with a persisting tourism (Perlik, 2006). In such a context, most observations also show that amenity migration is more temporary in mountain areas than in seaside or rural ones regarding problems of accessibility and mobility, adverse climate or snow cover. This is why it sometimes appears that amenity migration benefits mountain county-towns more than ski resorts (Héliion, 1999).

To discuss the link between amenity migration and tourism, we have to take into account the fact that tourism enables potential amenity migrants to “test” places where they intend to live. Secondly, we can notice that amenity migration stimulates residential recreation, and can even stimulate “visiting friends and relatives (VFR) tourism”. On the other hand, if tourism seems to be still essential to mountain economy and demography, amenity migration can appear as a solution for diversification, helping mountain areas to find a way out of “all tourism”. Amenity migration can also increase the resilience of tourist place in case of crisis, and may help to “embody” winter sports resorts in their territory, and then contribute to a “territorial turn”. This is so even if the cohabitation of amenity migration and tourism is not always a “quiet river”: loss of tourist beds, loss of income in ski-lift industry (less skiers), “strain” in uses of time and places, in life ways etc. Furthermore, there is very little experiences and knowledge on how to manage this process.

Of course, such a mutation poses many problems regarding the settling of new populations, their impacts on services (health, transport, schools, cultural activities etc.), as well as on the environment, and car traffic. Everything is intensified as a result. The process of relocalisation-amenity migration is one of its aspects and it is therefore only partial for the moment as far as the goals of sustainable development are concerned. Additionally, we have to notice that links with urban areas are too strong to enable an economic and social “autonomy” of new residential places, as economic status is based on “invisible flows of wealth”, such as wages earned in urban and industrial areas, unemployment benefits, retirement allowances, welfare incomes (Davezies, 2008). On the other hand, if amenity migration areas are often said to “benefit from urban areas”, we can also consider that urban areas may “benefit from amenity migration areas” if they are able to bring dynamism in attracting population and offering quality of life, providing that sustainable mobility answers can be found.

Amenity migration may still appear as a “low intensity signal” in the European Alps, but with climate change and downsizing of winter sports, in the long term, it could

become more and more a topical question. This accentuates the challenges of monitoring amenity migration, notably from the point of view of their relationship with cultural, social and economic mutations, both global and local: temporary or permanent amenity migration; mono or multi residential uses; cultural experience of place; trajectories of tourist places; managing local identities between “People from here”; second home owners, people who left and came back and new inhabitants in their diversity.

D.2.2.6 THE INFLUENCE OF TOURISM ON EVERYDAY NEED SERVICES, WELFARE REGIMES, HEALTH CARE AND DISABILITY SERVICES

First of all, it should be pointed out that there is a general dearth of studies on these issues, which makes it difficult to provide a clear picture of the influence of tourism on services and health care.

In fact, when measuring the demographic effects of tourist development, attention is mostly paid to figures providing information about the total population size of single municipalities or other administrative units, natural and migratory balances, fertility and mortality rates, and ageing and dependency indexes. Yet it should not be forgotten that one of the distinctive features of tourist resorts is the strong and sometimes exceedingly marked seasonality they display in the number of their inhabitants: a place like Cortina d’Ampezzo, to quote just an example, swings between a resident population of 6,000 in autumn and a temporary population of perhaps 50,000 people during peak tourist periods like the Christmas holidays and mid-August. This obviously poses severe challenges as far as the provision of both basic and specific services is concerned. Thus, although it is generally reckoned that a positive consequence of tourist development is a parallel development or improvement of services, some analysts also point out negative aspects that should not be ignored, such as the creation of structures (e.g. hospitals) which are manifestly disproportionate if compared to the size of the resident population and the provision of services (e.g. shops or even post offices) that are often closed in the low tourist seasons.

Ambivalent feelings towards possible negative effects brought about by processes of sudden and massive growth reminiscent of above-mentioned case of Davos are also widespread. In Switzerland an ongoing public debate about new tourist resorts built in the Alps, initially launched by NGOs (Pro Natura, Magazin 1/2012) with a focus on ecological questions, has increasingly shifted towards the concerns of the local inhabitants affected by tourist growth. The project “Tourism Resort Andermatt” by the investor Samih Sawiris is a much discussed example in this regard. The planned luxury apartments, hotels and villas are expected to triple the available beds in the valley and to add up to 6000 holiday

guests and employees to the currently 1346 inhabitants (Municipality of Andermatt, 2012; www.gemeinde-andermatt.ch/xml_1/internet/de/application/d2/f8.cfm).

Further, a long-term increase in occupation by 30% and of regional added value by 14% in just 15 years time is assumed in case of sufficient and payable housing possibilities for the employees. At the same time the number of holiday guests is expected to jump from 1.5 per 10 inhabitants in 2007 to 14 guests per 10 inhabitants, thus imposing a renewal of infrastructures (e.g. electricity, flood protection, but possibly also schools) (Urner Kantonalbank, www.urkb.ch/services/tourismusresort-andermatt/studie.html). A recent study has investigated the potential social consequences on the resort by interviewing different stakeholders in the municipality of Andermatt and in the whole valleys (Durrer Eggerschwiler et al., 2010). Especially young inhabitants do not entirely share the optimism of the resort administration and the politicians. There are fears concerning the possible crowding-out effect on the rental market, the infrastructure costs which might have to be paid through additional taxes,

the possible creation of low-qualified jobs instead of the jobs promised to local inhabitants, but also with regard to local identity (what will be the attitude of and the sheer impact of the new inhabitants?). Since the resort is still in construction, subsequent studies will have to show whether in Andermatt hopes will be fulfilled or, rather, some fears will prove justified.

A different set of issues, and possible concerns, refers to the impact of tourism and tourist development on the provision of welfare and care to the resident population. Some studies suggest that in tourist resorts children tend to lose their local dialect or be neglected by their parents during the peak season (Plüss, 1999; Loretan, 2000), and this possibly applies also to the local elderly people, as distinct to the provision of care and health services to elderly tourists. On the whole, however, these questions appear to be still largely unexplored. Very little seems to have been done in general on how very different welfare regimes, rooted in the highly dissimilar welfare systems of the various Alpine states, meet, so to speak, in an area displaying similar features and

Examples of good practice for disability services

Natural park Kaunergrat – Experience nature barrier-free (A)

The Natural Park “Naturpark Kaunergrat” (www.kaunergrat.at) is set in the high Alpine landscape of the Ötztaler Alps and comprises two valleys, the Pitztal and the Kaunertal, which are divided by a high Alpine mountain range so called Kaunergrat. The whole region and its 9 communities extend to a natural park area of more than 590 square kilometres. The Natural Park Kaunergrat was founded in 1998. Long before, in the 80s, the natural park region of Kaunertal started to create quality offers for handicapped people and their families, especially for paraplegics. Everything started with a few pioneers in mono-skiing at the Kaunertaler Gletscher, which designed and customised the equipment to the needs of handicapped people. In the 90s, Charly Hafele, owner of the “Hotel Weißseespitze”, started to remove critical barriers in his hotel and became the “First Rolli hotel in the Alps”. Many awards document the successful efforts made since then. An important step in the development of the natural park was the construction of the Naturparkhaus Kaunergrat in

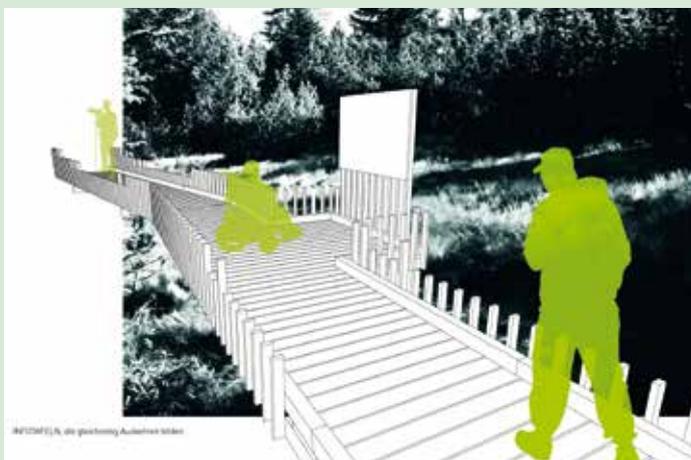


Figure 50: Kaunergrat barrier free tourism Piller Moor Stege
© „Naturpark Kaunergrat (Pitztal-Kaunertal)“

the area of the Piller Sattel. More than 150,000 people visit every year the outstanding place and enjoy the terrific view and the awesome natural landscape. The “Piller Moor”, the biggest upland moor in western Tyrol, is one of the highlights and is visited by thousands of people every year. Now the natural park is aiming to make this upland moor also accessible to people which are restricted in their mobility. To achieve this, nearly 1.5 km of wooden boardwalks will be constructed within the next three years. The old boardwalks will be completely replaced. The new one will prevent visitors stepping into the upland moor and therefore will also help to protect this outstanding habitat.

needs such as the Alps (Viazzo et al., 2010), and on the effects of tourism in strengthening or weakening the family and kinship networks and the neighbourly relations that are often resorted to by vulnerable categories in their coping strategies.

D.2.2.7 THE INFLUENCE OF TOURISM ON CULTURAL DEVELOPMENT

Up to the 1970s tourism was commonly perceived as positive for mountain populations not only from an economic, but also from a cultural point of view as a way of “opening” communities that were believed to be mentally closed and culturally backward, thus promoting “cultural development”. In later years, tourism came to be presented as an intrusion and a threat to the authenticity of local cultures: especially cultural anthropologists were vocal in denouncing that tradition was overwhelmed by modernity and the locals – in the Alps and elsewhere – were lured to indulge in adulterated or phoney rituals intended for tourist consumption, thereby “selling their culture by the pound” (Greenwood, 1977). Both positions are now felt to be too extreme and are in the process of being superseded by more balanced and nuanced attitudes.

From a demographic point of view, the main point to be stressed is that tourist development tends to affect the composition of local populations not simply in terms of age or gender structure but also in terms of a changing

balance between “locals” (the inheritors of local culture and tradition) and “non-locals”, the latter often displaying diverse cultural and linguistic backgrounds and possibly coming from distant places. As it has been repeatedly underlined in the Alpine Space Forum held in Innsbruck in 2011 and specifically devoted to the challenges created by the impact of demographic changes, “migration” is related to the question of cultural identity. Whether we refer to unique settlement structures, typical Alpine crafts and traditions or regional dialect and creative work, the following question must be posed: who should be entitled to learn about and transfer, then promote and valorise local Alpine cultures?” (Joint Secretariat ETC Alpine Space Programme, 2011).

Ethnographically oriented interdisciplinary studies have brought to light a number of unexpected and somewhat paradoxical situations. One such situation is that in many places cultural continuity – the survival and transmission, albeit in possibly changing forms, of local cultures – is made possible only by the demographic discontinuity represented by the arrival of new inhabitants, often attracted to the mountains by job opportunities directly or indirectly related to tourism³. It has also been suggested that prolonged and sometimes massive contact with outsiders has led local societies to revitalise their cultural identities in order to deal with the diversity and mutability of the larger society: as a result, local identities are sometimes found to be stronger in tourist resorts than in seemingly more traditional communities hardly touched by tourism (Salsa, 2007).

3. See e.g. the conclusions reached by a recent study by the Hochschule Luzern on the interactions between intangible heritage and tourism, which suggests that tourism may have a positive influence on local cultural heritage as it can give a new glint to a “collapsing” tradition and help maintaining an activity that would not be pursued otherwise, some traditions having found a revival through tourism. Cf. Lucerne University of Applied Sciences and Arts, *Between Kitsch and authenticity*, February 2012 magazine of the Lucerne University of Applied Sciences and Arts, Lucerne, p. 12-17: www.publikationen.hslu.ch/product.aspx?pid=528

E. THE CHALLENGES OF ALPINE TOURISM REGARDING DRIVING FORCES

The following chapters present a typology and analysis of the challenges, as drawn by the expert group which drafted the report.

E.1 AN INITIAL TYPOLOGY: MAIN TYPES OF ALPINE TOURISM

In particular the following typical aspects lead to different types of tourism in the Alps:

- **Mountains (M):** the height of the mountains and the thereby linked topography and climate of an area lead to very different options for tourism development. There are immense valleys in the high mountains surrounded by chains of summits and great altitude; the great diversity offers countless tourist options especially in the field of winter sports, hiking and climbing as well as for all kind of activities linked to mountain experiences (M). On the contrary, many Alpine areas are at the foothills of the higher mountains with an open cultural landscape and a less extreme climate (m). Many lakes and Alpine rivers offer options for water based leisure activities. Larger villages and Alpine cities are often located in the valley bottoms of rivers or along lakes at the foothills.
- **Resources (R):** traditionally local or regional resources are used as promotion elements. These resources can be nature or part of the tangible/intangible cultural heritage created by the native population. Very important for tourism are natural resources utilised as health remedies, which can be found in a broad variety in the Alps: mineral and thermal water, fresh air with specific additives, mineral rocks but also wild herbs or healthy local food. Nature itself is a resource with rare animal or plant species and also glaciers, waterfalls, springs, which are only available in a few Alpine places. Finally, also cultural heritage is relevant for tourism, combining material (architecture, clothes, tools) and immaterial (knowledge in food production, music, local languages) elements. In this context also traditional cultural landscapes with significant recreational functions and high cultural values, as a result of century-old farming practices, play an important role. Locations with little resources (r) need higher investments to create artificial attractions to enter the Alpine tourism market.
- **Accessibility (A):** a good accessibility (A) to a destination is a comparative advantage and stimulates tourism development and investments. Thereby the combination

of proximity to the metropolises around the Alps and a good transport infrastructure by high-level roads and railways leads to a combination of tourism with overnight stays and day trip visitors out of the centres. Alpine cities generally have good accessibility, some of them also by air transports and therefore take a gateway function to the surrounding valleys. All well accessible tourism areas tend to have a high share of second homes, which are only used for a short period of the year (cold beds effect). Peripheral Alpine regions (a) mostly develop tourism types with a higher average length of stay.

- **Seasonality (S):** A strong single sided seasonality (S), either winter or summer, causes additional strain: a seasonal labour market which is linked to short duration of employment and of a high risk of unemployment, high capacities of infrastructure to cover seasonal peaks (overcapacities), low efficiency of tourism facilities outside the main season. From the perspective of sustainability all season tourism without strong seasonal variation is advantageous (s). However, even reaching a good balance between winter and summer season is a crucial step forward. This is already true for many Alpine destinations.
- **Tourism intensity (I):** The relative contribution of tourism to the total added value of a regional economy is an indicator of intensity of the tourism sector in a region. A high intensity (I), which can also be seen by the relation of overnight stays to the number of inhabitants, also can create dependency and an orientation of local and regional development policy towards tourism. In many Alpine areas as well as in Alpine cities tourism is an important but not dominant economic sector (i). Often the intensity and thereby the importance of tourism looking at the total contributions is overestimated because of short seasonal peaks. In this context it is important to consider, that tourism often creates synergies with other economic sectors (e.g. agriculture, trade, handicraft, business, energy industry) by which the regional added value is increased.

On the basis of these five main typical aspects we can find different combinations, which are typical and relevant for tourism policy in the Alps. For instance, most ski resorts of the Alps are characterized by the combination of higher mountains (M), peripheral location (a), a high seasonality (S) and very high tourism intensity (I). In the following paragraph a description of the main types of Alpine tourism is presented.

Taking the five typical aspects and in a first step their binary values (capital letter for high occurrence or lower case for low occurrence), 32 combinations can occur as potential tourism type. Some of them are obviously only a theoretic but not

an existing option, e.g. regions showing low occurrence for all five typical aspects will not gain significant market share. The following seven combinations are identified as the main important types of Alpine tourism:

M	R	A	S	I	Type Description	Type n.
-	-	-	+	+	summer season holidays al lakes + rivers	1
-	-	+	+	+	summer season holidays al lakes + river / day trips out of metropolises	1
+	+	-	-	+	health (and culture) based all season tourism in peripher mountain areas	2
+	+	-	+	-	protected areas (national, biosphere, nature / regional) mainly summer	3
+	-	+	-	-	alpine cities / larger central villages	4
+	+	+	-	-	alpine cities with tourism specific additional resources	4
+	-	-	-	+	mountain destinations with balanced summer / winter season	5
+	+	-	-	+	mountain area with balanced summer / winter season + local attractor RN, RH or RC	5
+	-	-	+	+	ski destinations in high mountains / other key product linked to a season	6
+	-	+	-	+	ski (winter) + hiking and lake side (summer) near to metropolises	7

Figure 51: Rough typology of Alpine tourism

These types can be described as follows:

Type 1 – Foothill summer destinations: around the high mountain areas we find many foothills with attractive lakes and river basins. In the hot summer months these lakes attract holiday guests as well as population from the nearer metropolises. As higher mountains and other Alpine attractions are not far away, holiday guests often combine their stay with short trips to the inner mountain areas or nearby located Alpine cities and therefore contribute to the high season traffic peaks. Camping, farm holidays or stays in holiday homes are an important option beside stays in commercial accommodations especially for families.

Type 2 – Health destinations: the combination of highly effective medical treatments and remedies and the surrounding mountains with the possibility to opt for a great variety of outdoor activities earned the Alps a worldwide reputation during the early stages of its tourist development. Often a place with a vibrant cultural life has a substantial number of long stays guests. Today, the core product of health cures is supplemented by wellness offers mainly in combination with shorter stays.

Type 3 – Nature experience oriented destinations: large protected areas as national, biosphere, nature or regional parks and their surroundings as well as the traditional cultural landscapes as species rich Alpine pastures or meadows offer especially in the summer season extraordinary insights to the Alpine nature. Hiking and trekking with overnight stays in huts or bed and breakfasts at farms are a growing market. Other outdoor activities, using nature mainly as a scenery, e.g. for mountain biking, canoeing, rafting, paragliding, free climbing could create some conflicts with the preservation of valuable Alpine ecosystems. Furthermore “entrance

gates” with information centres attract short visit guests from destinations of type 1 and 2 and thereby create in high summer season enormous visitor peaks.

Type 4 – Alpine cities and villages: at the border and inside the large river basins the Alps are surrounded by many highly attractive cities and larger villages. They offer a high competitive multi-optional choices to their visitors in the cities themselves by cultural offers like museums, historic buildings, theatres or concert halls. In addition, guests find many possibilities for shopping and leisure activities. This can be combined with trips to the various attractions in the periphery with lakes, rivers or mountains. The possibility of multioptional choices attracts Alpine cities to the MICE sector (meetings, incentives, conventions and events) in business travelling.

Type 5 – All season inner mountain destinations: because of their peripheral location guests visiting these destinations mainly stay overnight. Because of topography, climate and infrastructure the mountains attract guests in winter, for skiing, as well as in summer to have a broad variety of mountain summer experiences from sports and nature to wellness and culture. The ropeways as basis for skiing in winter open a multitude of options to easily visit the mountains in the summer. Additionally, many high quality hotels offer wellness facilities as a back up plan in the case of bad weather conditions, which play an important role in many regions.

Type 6 – Ski resorts: the location at a higher altitude combined with a snow guarantee from December to April – either by natural precipitation or mainly by artificial snow production – make the winter season the main and sometimes the only basis of tourism economy. High quality infrastructure

with modern chairlifts and ropeways, systems of artificial snow and well prepared slopes, services as ski rental, ski schools or guiding are the key to success for international competition. In addition, accommodations of all price ranges situated near lifts and slopes as well as lodging and entertainment after skiing are parts of the products.

Type 7 – All season tourism in the mountains at the edge of the Alps: short stays and day trips from the metropolises and Alpine cities overlap with holiday guests staying longer. The character of this kind of tourism is similar to Type 5, but accommodation quality is often slightly lower than the one offered in the inner part of the Alps and therefore wellness plays a minor role. On weekends and during high season the overlapping of overnight guests and day visitors lead to high traffic loads and thereby negative impacts such as noise and air pollution.

These seven forms of tourism are basic types describing core elements of typical Alpine tourism destinations. Most destinations try to become more competitive by covering several of the abovementioned categories. Therefore, we find aspects like nature experience or health in many summer foothill destinations or vice versa, that is winter dominated ski destinations enter the summer tourism market to win market shares and become an all season destination in the long run. The long tradition of Alpine tourism as well as very specific local or regional conditions have been a fertile ground for the development of various forms of tourism.

On the border areas between the piedmonts and the higher mountains it is very common to find important tourism areas, which are also intensively used as day trip destinations. It is possible to observe the same phenomenon in areas nearer to Alpine cities. In the surroundings of the metropolises near the Alps such as Lyon, Milan, Munich, Vienna or Zurich we can find many destinations which attract tourists as well as the urban population for leisure and recreation. This leads to additional severe consequences especially in the field of traffic, not to mention housing, where prices are boosted due to second home residences to the detriment of the locals. Besides these negative aspects, it is worth stressing the strong economic impact tourism has on an area. Operators of tourist infrastructure benefit from additional day trip customers also helping to keep jobs in the off season and improving utilized capacity.

E.2. STRENGTHS AND WEAKNESSES OF MAIN ALPINE TOURISM TYPES

Each Alpine tourism destination has its own strengths and weaknesses, however they also share some of the general ones. In the context of sustainable tourism development the identification of strengths (S) and weaknesses (W) and later of the opportunities (O) and threats (T) cannot only follow economic aspects as profitability or market position. The concept of sustainability must be considered within an integrated view of tourism across the three dimensions of sustainability. Guiding questions concerning sustainable Alpine tourism are:

1. the ecological dimension of tourism: conservation of a sound and multifarious environment, nature (biological variety) and landscape, preservation of the ecological balance of high sensitive regions, environmentally friendly use of resources (air, water, soil), prevention of environmental impacts;
2. the aspects of ethical and social fairness as well as cultural adaptation: creation of fair working conditions and payment, training and qualification offers for people working in the tourism sector, transparency towards and participation of local population in decision making, safeguarding and respecting the cultural identity of locals;
3. profitability and long term economic aspects: future and long lasting profitability of businesses, increase of local and regional income to all parts of population, stimulation of investments creating an additional regional added value and by this improving the welfare of the population in tourist destinations.

The general part of this chapter looks at Alpine tourism from an overall perspective. It tries to give an answer to the question “what are the main potentials but also constraints for sustainable tourism development in the Alps”. Further on a detailed analysis of the seven types of tourism listing their most important strengths and weaknesses follows.

E.2.1 GENERAL POSITION OF ALPINE TOURISM

Looking at Alps as a competitive unit in a global and continental tourism market, the following general aspects are highly relevant:

Alps in general	
Strengths	Weaknesses
<ul style="list-style-type: none"> + central location in Europe with more than 400 million overnight stays/year + strong emotional binding of Europeans to the Alps as symbol of pure nature and high quality of life + landscapes of high ecological and aesthetical importance + cultural identity, recognition value + high purchasing power and high travel intensity in source markets + good to very good accessibility by either road, train or air + positive and international image + multifarious tourism relevant attractions based on unique nature and culture + some highly competitive destinations with modern infra- and supra-structure as flagships + well functioning spatial and territorial planning systems avoid overdevelopment + long-lasting experiences in tourism led to comparably high professional standards (at least in tourism centres) 	<ul style="list-style-type: none"> - low distribution power by atomised structure of suppliers and marketing services - low economic attractiveness for leading European tour operators to cooperate with destinations - very limited development options in attractive destinations because of constraints of space and high prices - topography leads to bottlenecks in transport system during high season - high vulnerability due to natural hazards - high vulnerability due to tourist activities - high vulnerability to climate change impacts - high costs for suppliers (investments, staff, energy) - in general low innovation rate of suppliers - poor working conditions for employees (low incomes, long and irregular “family unfriendly” working hours) - tendency to use uniform standardization of infrastructure and services - nature and landscape only as scenery for sports and leisure and not as a valuable asset in itself

The Alps, if compared to other European or Mediterranean destinations as e.g. Turkey, the Canaries or sea side areas in Egypt, are an “old tourism destination”. Therefore the Alps can profit from the good basic infrastructure and a high standard of professionalism of tourism stakeholders. In addition, the high level of development leads to high constraints for innovation and economic framework conditions to investors. Most tourism businesses in the Alps are predominantly small and medium sized companies (SMEs) and in comparison to other economic sectors, their profitability margins are under the average. SMEs sometimes have difficulty in dealing with the increasing stress of global competition. In order to offer the highest quality standards, Alpine tourism businesses are often very capital-intensive, while they tend to have rather low equity rates. Various Alpine tourism enterprises are faced with high investment costs and expenses, e.g. for staff and energy. Moreover, during the off-seasons some Alpine destinations are confronted with an insufficient utilization – the running costs which accumulate in these times have to be balanced with surpluses gained in peak periods. Moreover SMEs provide advantages like diverse tourism offers, authenticity, hospitality and direct customer relationships. Furthermore especially the SMEs which are well embedded in the destinations, can enhance social acceptance and long-term binding of tourism operators to the locations.

In order to successfully position Alpine tourism in the international context, there is an enhanced need for innovative superregional cooperatives.

The Alps are mainly a destination for individual travellers who tend to organize journeys and accommodation by themselves. This makes most Alpine destinations unattractive to the leading tour operators competing with their summer as well as winter programmes (except for large independent resorts). Furthermore, during the winter months from early November until April, the Alps are advertised on TV mostly as a sport area. This may put potential (summer)-guest off or may have negative effects on other tourism forms such as health and nature experience.

E.2.2 SPECIFIC TYPES RELATED TO ESSENTIAL STRENGTHS AND WEAKNESSES

The following tables give an overview of additional main strengths and weaknesses of each type of tourism. Of course, this is a general picture generated by an overall view of the Alps and a comparison among the types. Each single destination can belong to one of the types or a combination of two or three types. The actual strengths and weaknesses may differ from the generalized picture. This is part of the variety of attributes within each type. The current situation of a specific type of destination depends not only on their strengths and weaknesses, but also from the impacts of tourism on all fields of sustainability: economical, environmental and social-cultural aspects. The concrete impacts can significantly differ because of tourism intensity or carrying capacity of a destination. Therefore,

listing general or typical strengths and weaknesses for each type of tourism will give a clearer picture of each one of

them and help the later identification of opportunities and threats.

Type 1: Foothill summer destinations	
strengths	weaknesses
<ul style="list-style-type: none"> + high level of multi-optionality for guests on site and in near located mountains and Alpine cities + pure water of lakes and rivers + diverse cultural landscapes + various types of accommodation + authenticity and attractiveness of local food specialities and cultural events 	<ul style="list-style-type: none"> - mostly very fragmented small-scale stakeholder structure with low co-operation level - conflicts caused by the overlapping of day visitors from metropolises, cities and holiday guests - high potential of bad weather/thunderstorms in northern Alps - missing all inclusive offers/budget products for families - seasonality in labour market and use of capacities

Type 2: Health destinations	
strengths	weaknesses
<ul style="list-style-type: none"> + proved remedy quality and medical competence + mostly multifarious additional services supporting health improvement/stabilization + high quality of nature and local food in compliance with health standards + creation of permanent jobs, basis for efficient use of infrastructure 	<ul style="list-style-type: none"> - mostly very fragmented stakeholder structure with low co-operation level - often missing specialization - high economic risks of large scale central health infrastructure (e.g. mineral or thermal bath, medical centres) - wellness and spa installation in hotels outdates before amortisation

Type 3: Nature experience destinations	
strengths	weaknesses
<ul style="list-style-type: none"> + unique "Alpine" nature and cultural landscape with incomparable high biodiversity and recreational value + mountain farming conserves landscape and produces local authentic food + good network of Alpine trails and modern mountain huts + many large protected areas with information and service centres + often high quality public transport, exclusion of motor vehicles + good cooperation between regional tourism suppliers and management of protected areas + use of signet of protected areas as quality brand in tourism and regional economy 	<ul style="list-style-type: none"> - difficulties to avoid negative impacts of tourism in high season - often only focused on summer season - conflict potentials with outdoor trend sports - existing or planned large scale infrastructure as obstacle to set up or enlarge protected areas - difficulties to include agriculture and forestry in management plans - small or missing funding for information activities towards guests - seasonality in labour market and use of capacities of infrastructure

Type 4: Alpine cities and villages	
strengths	weaknesses
<ul style="list-style-type: none"> + historic centres and authentic architecture + multifarious tourism attractors in the cities and the surroundings + very good accessibility and mostly local and regional public transport + shopping leisure and services + MICE facilities in combination with larger hotel capacities (meetings, incentives, conventions and events) 	<ul style="list-style-type: none"> - exchangeable business areas with global brand shops - besides historic centres heavy traffic -> noise and air pollution - in summer season heat peaks (southern Alpine cities) - focus on short trips/stays generating additional traffic - overlapping of visitors staying in cities and day trip visitors from surrounding destinations

Type 5: All season inner mountain destinations	
strengths	weaknesses
<ul style="list-style-type: none"> + many destinations are located at medium heights with mountains, lakes and small rivers + high attractive nature as basis for sports (summer + winter) and recreation + mountain farming conserves landscape and produces local authentic food + creation of permanent jobs, basis for efficient use of infrastructure + low share of day visitors keeps traffic and visitor peaks on a relative low level 	<ul style="list-style-type: none"> - mostly very fragmented stakeholder structure with low co-operation level - two main seasons with low demand in mid seasons - summer mostly short (especially in higher mountains) - mostly lack of activity options in the case of bad weather (northern and central Alps) - often critical size of ski resorts to compete with larger resorts - often large number of small or very small suppliers with low innovation and reinvestment rates - difficulty in cooperating and entering new (international) markets

Type 6: Ski resorts	
strengths	weaknesses
<ul style="list-style-type: none"> + flagship resorts with very modern, high capacity infrastructure and December – April snow guarantee + high quality of services around winter sports and after sports leisure activities + well organized local transport from accommodation to ski stations + high quality and variety of all kinds of accommodation + in flagship resorts continuous innovation and high investments to keep competitiveness + by cooperation with large tour operators flagship resorts can enter new emerging source markets + high share of one week stays, and during the week additionally day visitors + good co-operation among various actors often managed by local/regional ropeway company 	<ul style="list-style-type: none"> - medium sized and not natural snow secure resorts under high investment pressure to keep market position - high energy demand of infrastructures - strong seasonality of labour market - size of public supply infrastructure oriented at winter peaks (low efficiency during the rest of the year) - traffic problems at weekends (week to week change of guests + weekend day visitors) - increasing share of flight based short trips to ski resorts near airports - mid height and lower ski areas highly vulnerable by warm/rainy weather which tend to increase due to climate change - pressure to enlarge resorts and arenas in untouched high mountains areas - potentially high demand for public financing of ski infrastructure, - Public financing of ski infrastructure depts can be using money needed for other public necessities - replaceability: the guest "sees" only the infrastructure

Type 7: All season tourism on bordering mountains	
strengths	weaknesses
<ul style="list-style-type: none"> + multifarious tourism and leisure attractors linked to infrastructure and services + mountain nature as pure area for recreation of urban population + efficient use of infrastructure capacities + good accessibility by public transport from metropolises/ cities + creation of permanent jobs (nevertheless mainly in low payment service sector) + various types and qualities of accommodation available + mountain farming conserves unspoilt landscape and produces local authentic food 	<ul style="list-style-type: none"> - mostly very fragmented stakeholder structure with low co-operation level - tendency towards shorter stays – increasing the impacts of traffic (day visitors and short stays) - on good weather weekends strong pressure on attractions and linked transport/traffic systems - conflicts by overlapping of day visitors from metropolises, cities and holiday guests (see point above) - low innovation and reinvestment rate of SME - missing clear positioning (unique profile) leads to reduced competitiveness against specialists

E.3 DRIVING FORCES LEADING TO CHANGES AND ADAPTATION NEEDS OF ALPINE TOURISM

E.3.1 DRIVING FORCES LEADING TO OPPORTUNITIES AND THREATS

Tourism in the Alps is subject to permanent changes. The driving forces having a significant influence can have different dimensions (spatial, intensity and time) and background. Some have a global or at least continental dimension; others are more related to administrative levels such as EU, nations, regions or local authorities. The Alps as a tourist destination play a relatively small role compared to the global economy and as part of it the global tourism system. Because of this Alpine tourism does not significantly influence the direction and dynamics of a series of large scale driving forces, but it is at the mercy of these forces itself and contributes to them.

The currently most discussed driving forces in politics and literature are:

- climate change;
- demographic change;
- energy availability;
- global market dynamics;
- transport system;
- knowledge and information societies.

These long-term driving forces affect the Alps as a whole. However, the nature and extent of the impact for each Alpine tourism type depends mainly on two aspects: on the one side the strength and weaknesses of the territory itself, on the other its position in relation to other tourism destinations and its ability to draw on their growth and development for their own benefit.

Driving forces will be later used to check the combinations in SWOT (S-O, S-T, W-O, W-T) to find the opportunities and threats described.

E.3.1.1 CLIMATE CHANGE

In recent years several research and cooperation projects focusing on the Alpine region have been dealing with the issue of climate change. So far, ClimAlpTour, an Alpine Space project, is the only cooperation project on Alpine level that is explicitly focused on tourism and climate change. The project aims at providing an approach to tackle the effects of a changing climate on Alpine tourism. Further studies have been carried out for specific regions and countries.

The following contribution builds on these sources, especially for what concerns the implications for the tourism sector, and on the existing relevant literature.

The past climate in the Alps

The environmental, cultural, and economic diversity of the Alps has traditionally brought a large set of tourism activities to the Alpine region. However, Alpine tourism is mainly natural resources and climate-dependent (Urbanc & Pipan, 2011). Hopefully, climate change will stimulate a reorganization of tourism demand and supply towards a more sustainable paradigm, as advocated by the Tourism Protocol of the Alpine Convention. The climate change dimension thus emerges as new imperative for Alpine communities in planning for sustainability and only climate-compatible tourism should be regarded as sustainable tourism (Abegg, 2011).

Long-term climate data series (temperature, rainfall etc.) have been used to establish past changes in the climate. The Histalp project (2007) on Alpine climate data series highlighted four Alpine zones – represented in Figure 52 – with similar changes in average temperature for three reference periods (1850-2007, 1850-1975, 1975-2007).

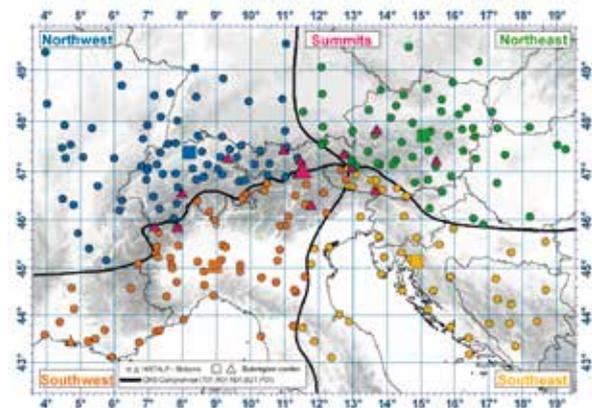


Figure 52: Map of positions of measuring points used in the Histalp project. Division of the Alps into four climatically homogenous sub-regions (NW, SW, NE, SE). (Histalp project, 2007)

The future climate in the Alps

Data about past average trends is certainly informative but its usefulness can be questioned when it comes to the estimation of future climate dynamics at local level.

Regional climate models (Jacob et al. 2007; CLISP, 2009; Prudence and Ensembles EU projects) may offer credible scenarios for interpreting the future Alpine environment, indicating potential and important differences between the various regions of the Alps.

Possible impacts of climate change in the Alps

Beyond the regional differences, at all levels, the possible impacts of climate change in the Alps are the following:

1. general increase in average temperatures (1.5°C by 2050 and 3.5°C by 2100 (baseline year 1990), under A1B IPCC SRES) compared to current conditions and decrease in number of ice and frost days with greater warming of winter than summer temperatures;
2. changes in rainfall patterns (mean precipitation show an increase of +15% in winter and -15% in summer, but uncertainty is higher compared to temperature) with more probable heavy precipitations and floods in winter, and droughts in summer;
3. increase of storm frequencies;
4. increase in evapo-transpiration (water lost into the atmosphere from rivers, lakes plants and soil) and generalized reduction in water resources;
5. glacier retreat on a massive scale;
6. earlier onset of snowmelt with a resultant shift in maximum runoff from spring to winter;
7. reduction in snow cover and snow reliability of many winter sport regions with upward shift of the average snowline (but aspect and sun exposure need to be considered at the local level);
8. changes in the regimes of watercourses, with increasing dry watercourses in summer;
9. increase in the probability of periods of drought;
10. extension of the summer season and the vegetation period at all altitudes
11. changes in agricultural practices, biodiversity, and thus landscapes, with an upward shift of many biological zones;
12. increase in risk of natural hazards such as rock falls, landslides, debris flow, ice falls and ice avalanches;
13. increase in the probability of heat waves (as e.g. in summer 2003); (AdaptAlp, 2011; BMU, 2007; Beniston, 2006; Chaix 2010 in: Urbanc & Pipan, 2011).

Changing Alpine landscapes

Changing landscapes by the retreat of glaciers and the upwards shifting of the tree- and forest-lines are important consequences of climate change. The tourism sector has to adapt to such changes which also influence the attractiveness of landscapes, as the OcCC-study "Climate Change and Switzerland 2050" from 2007 shows.

"Warmer temperatures will particularly leave a trace in high Alpine landscapes. Many landscape phenomena, such as glaciers, vegetation or terrain, will experience considerable changes. Flora and fauna will adapt to the new conditions, although it should be noted that certain natural processes, like forest regrowth, only proceed very slowly and thus take place with a considerable time lag. These changes may represent an opportunity as well as a risk to tourism" (Bürki et al., 2007, p.85-86)

"The changes in the natural landscape that are expected due to climate change will strongly influence the attractiveness of a destination. The tourist offerings will change too. In the Alps, the mountain railways and transport businesses are expected to feel the effects of climate change the most. However, the accommodation sector (hotel and non-hotel accommodation) and the broader tourist attractions (outdoor activities) will also be directly or indirectly affected by the effects" (Bürki et al., 2007, p.88).

This is just an example of further challenges not already mentioned: A recent study on climate change and challenges for tourism published by the Swiss State Secretariat for Economic Affairs (www.seco.admin.ch/dokumentation/publikation/00008/00025/04734/index.html?lang=de) or the Austrian Study on "Climate change and travel attitudes" (www.bmwfj.gv.at/Tourismus/TourismusstudienUndPublikationen/Documents/Sammelmappe1%20Klimawandel%20Reiseverhalten.pdf) might give further hints. And further recommended sources for detecting such challenges are the Swiss Growth Strategy for Tourism, which identifies climate change as one of five future challenges of the tourism sector (www.evd.admin.ch/themen/00129/01523/index.html?lang=de). The Swiss Climate Change Adaptation Strategy sees the main challenge in developing new offers especially in summer tourism (www.bafu.admin.ch/klimaanpassung/11529/index.html?lang=de).

Possible impacts of climate change on Alpine Tourism

In considering the impacts of climate change on tourism in the Alps it is necessary to distinguish between the winter and the summer season, because the final effects might diverge substantially. The effect of climate change on winter tourism may be predominantly negative, but snow reliable ski areas and innovative and flexible destinations situated at lower levels

with less certainty of snow could turn climate change into an opportunity. At the same time there could be significantly beneficial effects for the summer tourism: on the one hand the expected decrease in snow and ice cover may lead to a rethinking of tourism development beyond the traditional vision of winter sports, on the other hand the climatic attractiveness of Alpine summer holidays might increase.

A snowless winter?

The World Tourism Organization started warning about the possible negative implications of climate change for winter tourism and sports since 2003 (UNWTO, 2003). As a result of temperature increases, the snowline will rise by about 150 m for every 1°C of warming (Solomon et al., 2007). Further, the seasonal distribution of snow may change considerably inducing an earlier termination of the season (Beniston et al., 2003). However, it is highly unlikely that the changes will be linear. Thus, the inter-annual and intra-annual variability of snow fall and cover are also destined to increase, leading to higher level of complexity in managing the ski areas, especially with regards to the snow deficient periods.

As a consequence, many ski resorts could be seriously threatened and only facilities situated at high altitudes (above an average of 1,500 meters as a rule of thumb to be validated against local conditions) could be able to host winter sports. The orientation and the gradient of slopes also have an important impact on the reliability of snow cover. Nowadays already 57 of the main 666 ski resorts of the European Alps are considered not to be snow-reliable. In general, a ski resort is considered to be snow-reliable if, in 7 out of 10 winters, a sufficient snow covering of at least 30 to 50 cm is available for ski sport on at least 100 days between December 1st and April 15th (Bürki et al., 2007; OECD, 2007).

Indeed, downhill skiing is the most vulnerable activity. Also cross-country skiing faces the risk of the absence of snow during individual years, which could preclude the activity. Although trails are often at relatively low elevations, snow cover is frequently less exposed to the sun where the trails are located amongst shaded forests or are exposed to the north. Moreover there are techniques for packing the snow and planning the trails (Chaix, 2010 in: Urbanc & Pipan, 2011). Free-ride, back-country skiing, snow-shoeing, and all those activities which take place in the untouched areas of the Alps are likely to be affected by an increased risk of natural hazards, and in particular of avalanches, due to the increased instability of the natural snow condition.

However, climate change is also an opportunity for those resorts that are snow-reliable, as they will face less competition in the future (Simpson et al., 2008). Snow reliable ski resorts will probably be the winners of the climate change induced winter tourism competition, at least from an economic point of view. This is why there exists a growing pressure for the construction of cable cars and

lifts at higher altitudes and on glaciers (e.g. Les Deux Alpes, Tignes, Andermatt, Arosa-Lenzerheide, Zermatt-Cervinia, Monte Rosa, Stubai-Pitztal etc.). Thus, it is not only the impacts of climate change per se, but also the impacts of adaptation which threaten to have a negative effect on the environment (BMU, 2007).

The endless summer?

The summer season in the Alps might become more appealing due to the expected increase in temperatures and the decrease in precipitation, while the typical length of the season might be extended. At the same time the competing Mediterranean destinations might lose some climatic attractiveness, thus favouring a revival of the Alpine summer holidays (Abegg, 2011). The increase in temperatures is also likely to bring more tourists to the Alps especially when they attempt to escape the heat waves at lower elevations (e.g. as in summer 2003). However, as the pressure on water resources will increase, especially in summer, there is the risk for water scarce areas not to be able to fulfil the water demand during the tourism peaks (Hohenwallner et al., 2011).

With the increase in temperatures, it is also expected an increase in the popularity of water based activities, such as swimming, windsurfing, kite-surfing and sailing, both in natural and artificial water bodies (e.g. artificial lakes and swimming pools). This could potentially induce negative environmental consequences if not properly managed (Chaix, 2010 in: Urbanc & Pipan, 2011). The Alpine Space SILMAS Project ("Sustainable Instruments for Lakes Management in the Alpine Space") also considered climate change while a previous project, AlpLakes, took into consideration others management tools for the conservation of biodiversity.

Wild-water activities, such as rafting, kayaking and canyoning, depend on the behaviour of water courses. Climate change will increase the stress on water basins, with more severe low water levels in summer. The risk of rivers drying up will probably increase, even if glaciers melt. They could not compensate for the hydrological shortage at the relevant moment of the year. It is thus important for water managers and public authorities to deal with the problem of water management with great care (Chaix, 2010 in: Urbanc & Pipan, 2011; Hohenwallner et al., 2011).

The principal threat to hiking, mountaineering, and high-mountain activities, as for the winter season, is the increase in natural hazards such as avalanches and falling ice blocks caused by melting glaciers, landslides due to increased incidence of extreme rainfall, and mudslides and rock falls resulting from the melting of permafrost. The Alpine Space PermaNet project explicitly focused on the impact of climate change on permafrost (Kellerer-Pirklbauer et al., 2011).

However, the uncertainty of climate models on these aspects is still very significant.

Mountain biking may also be influenced by the increased risk of natural hazards but otherwise it should not be affected by climate change (Urbanc & Pipan, 2011). The positive side for these activities is quite clear as milder temperatures, less rainy days and longer seasons are also expected. Otherwise, sometimes high-altitude landscape attractiveness could be threatened by the loss of glaciers and peri-glacial environments.

Because of climate change, the ecological conditions for forests in the Alps are also fundamentally changing,

with unknown effects on the forests' essential protective, ecological, economic and social functions. The Alpine Space Manfred project investigated this specific issue. Given that forests are a fundamental asset of Alpine tourism, these changes might have significant implications for the tourism sector. A risk for summer tourism activities are wildfires, which increased in the last decades in some abandoned areas of the Alps but that might be exacerbated by climate change due to the increased frequency of extreme summer conditions (droughts and extreme temperatures) (ALP FFIRS project; Valese et al., 2010).

Contribution of tourism to mitigation of Climate Change

General mitigation strategy

In general, a successful mitigation policy could consider four main steps that any tourism-related business or institution can implement as a practical response to climate change.

1. The first step is to eliminate the emission of greenhouse gases by keeping away from certain activities that can be avoided without a considerable change of the tourism product or service quality (e.g. heli-ski).
2. The second is to reduce the emission of greenhouse gases by focusing on energy efficiency practices in specific activities (e.g. thermal insulation, efficient light bulbs).
3. The third step is to substitute practices that are responsible for a large amount of greenhouse gas emissions with practices that have a lower carbon footprint (e.g. private to public transports).
4. Finally the institution or business unit can offset remaining emissions to achieve full carbon neutrality (e.g. offsetting for journeys by air, selling Gold Standard Certified Emission Reductions).

CO₂ compensation activities should be part of a comprehensive and integrated strategy. Compensation should come after the other possible mitigation measures, as a second best option (Abegg, 2011).

(Simpson et al., 2008)

Mitigation guidelines for accommodation

- a) Establish environmental management systems (EMS). EMS help to understand resource consumption and to identify areas where resources can be saved.
- b) Reduce energy use. This can be achieved by replacing old machinery, and installing power-saving devices, such as switch-cards in rooms.
- c) Use renewable energy only. Accommodation establishments can either install renewable energy sources, including photovoltaic or solar heating, or they can buy renewable energy from specialized power providers.
- d) Reduce the use of materials. There are opportunities to substantially reduce resource use, and in particular packaging. For instance, soap containers can be replaced with dispensers, and one-way packaging for butter or jam can be entirely avoided.
- e) Recycle wastes. Hotels can substantially reduce overall waste produced, as well as recycle most of the remaining waste.
- f) Constructions. Whenever new accommodation establishments are built, they should be constructed in a way to make them independent from fossil energy sources – it is now possible to use 100% renewable energy for operations if this is considered prior to the commencement of building.
- g) Communicate green action. Accommodation establishments are ideal meeting points to provide customers with information about pro-environmental action taken.

(Simpson et al., 2008)

Adaptation of Tourism to Climate Change

In general, operators are broadly aware of the need for adaptation to the changing climate, as there exist several awareness raising activities, regional studies and surveys about the impacts of climate change on tourism.

Whereas tourism demand is very adaptive and the tourists' behaviour is constantly and rapidly evolving, the tourism supply, meaning the Alpine destinations as a whole, need adequate time to plan their actions in order to respect their social, economic and environmental constraints (UNWTO, 2008; Simpson et al., 2008).

There certainly are autonomous actions that can be taken by the tourism suppliers, but the most crucial part of the adaptation effort will be played by the so called "planned adaptation". Therefore, adaptation should be regarded as a thoughtful and concerted process of tourism development planning for the long-term, and definitely beyond the mandate of one political administration (Balbi et al., 2011). Moreover, tourism is a highly subsidised economic sector, so public funding need to take into account a development oriented towards climate resilience, and ultimately, sustainability (Abegg, 2011).

Diversification

A ski-intensive strategy is a capital intensive and highly technological strategy, which tends to create scarcely environmental- and climate-compatible economic monocultures (Abegg, 2011). Every investment in artificial snowmaking increases the tourism dependency on skiing related activities, instead of reducing winter tourism dependency on snow.

Indeed, a model of economic development based on snow, no matter if natural or artificial, is still somehow surviving in the Alps, even at low altitudes, notwithstanding the maturity of the traditional ski product (Macchiavelli, 2009; Bourdeau, 2008). Conversely, it has been demonstrated that higher artificial snow coverage does not necessarily imply better commercial results (Abegg, 2011). Nevertheless most of the winter sport areas are prepared to diminishing guaranteed snow covers by the use of artificial snow production.

A prudent adaptation strategy would maintain the existing skiing and snowmaking infrastructure, where the climatic and environmental conditions are more favourable (approximately more than 1,500 m above sea level, depending on the local climate and geography), while any further snow-based development plan should instead be carefully thought through (WWF, 2006). The public subsidies, once destined to these activities, should have been officially suspended in 2007 based on European competition rules, in order to reflect the real economic feasibility of this business

model. A more competitive market could also stimulate efficiency in use of the existing infrastructure, for instance by increasing the degree of synergy with summer tourism (e.g. downhill mountain biking supported by cable cars, mountain biking in cross-country itineraries etc.).

The natural snow-based winter tourism activities are more flexible, compared to downhill skiing. Free-ride, back-country skiing, and snow-shoeing, when offered under controlled conditions – for instance with the supervision of Alpine guides – can capitalize the periods of snow, while taking into account the increased risk of avalanches. Although fully exposed to the variability of the climatic conditions, these activities are human labour (rather than capital) intensive and there seems to be a market niche that is not adequately covered throughout the Alps (Daidola in: WWF, 2006).

These activities can be an alternative to mass tourism and should be supported by adequate legal and security frameworks. Furthermore, snow-park facilities could also represent a "light" snow-oriented option for small family friendly ski-resorts. A well designed facility can run with one supporting lift and may require a small amount of artificial snow. At the same time, the market demand is "young" and growing.

Tourists' adaptation is certainly autonomous, but the choice of the destination depends more on the guest's segment than on climate change. Thus, while intensive skiers will probably react by choosing different destinations with snow-reliable ski areas (Ketterer & Siegrist in: Weiermair et al., 2011) other tourists might in future have very different holiday targets. Tourists are far from being a homogeneous block and various fruition behaviours can be observed. Balbi et al. (2012) modelled eight main segments of winter tourists. For instance, non-skier winter tourists (neither downhill nor cross-country) are estimated around 25% in France and 48% in Italy (OECD, 2007). Segmentation of the tourism offers is therefor fundamental in order to satisfy a heterogeneous demand.

Thus, a wider approach to adaptation also means adopting a marketing strategy in the face of global competition, for instance by defining and promoting the unique selling point of the destination, in an integrated fashion with the surrounding region. Three are the main objectives that should be pursued: (a) identity, (b) flexibility, and (c) innovation.

Identity is fundamental for being recognized as an authentic and distinguished destination. An Alpine tourism destination needs to be identifiable. Local culture, handicraft, gastronomy, protected areas and agriculture are elements of strength, among the destination's specificities, and should be incentivised. Flexibility will be required by the increased

variability in climate conditions and in the behaviour of tourism demand. Light and human labour intensive investment is required. Innovation, not only concerning the products, but also of the processes (e.g. booking, transports etc.), should be oriented towards long-term sustainability.

“Authentic destinations”, with more local products and local culture and regional economic cycles may be the real winners of the future tourism industry (Ketterer & Siegrist in: Weiermair et al., 2011). This is particularly relevant for low-lying ski areas, which have the option to reduce winter tourism offers in ski resorts at low altitude and increasingly concentrate on summer tourism. In order to attract an increasing number of tourists during summer and in the off seasons, more and more destinations offer wide varieties of cultural, culinary or sportive activities and events. Typical examples are for instance the Alpine summer and the rural autumn in Salzburg, where guests can experience authentic culture and customs (www.salzburgerland.com/en).

On a regional scale destinations could establish partnerships between operators with the objective of sharing products (e.g. “soft mobility”) or system production methods (e.g. water systems and waste management) (Ketterer & Siegrist in: Weiermair et al., 2011). Partnerships are also crucial with regards to commercialization. Very often in the Alps small areas (even within the same municipality) tend to prefer individual actions rather than pursuing integration with the

neighbouring competitors. This is an extremely weak point in the context of global competition. Finally, partnerships could be established with the insurance sector in order to plan a more protective risk allocation.

E.3.1.2. DEMOGRAPHIC CHANGE

Demographic change⁴ is an on-going process in many high-developed countries worldwide. In the European Union the process leads to an unbalanced development of the European population in total but especially in relation to different territorial types. By looking first at the overall development it can be observed that in most of the European countries the fertility rate is too low for a balance of the number of births and deaths. In addition the restricted regulations for immigration to the EU Member States but also to Switzerland and Liechtenstein leads in some countries to a negative net total of immigrants in relation to emigrants.

Also within Europe strong regional disparities occur (EUROSTAT, 2008), especially concerning different territorial types. While metropolises and cities tend to grow, many rural areas stagnate or decrease. Younger people take their opportunities for higher education or qualified jobs in the larger agglomerations while elder people stay in the rural areas, some of them live in urban centres in attractive retirement locations or second home residencies often in tourism areas.

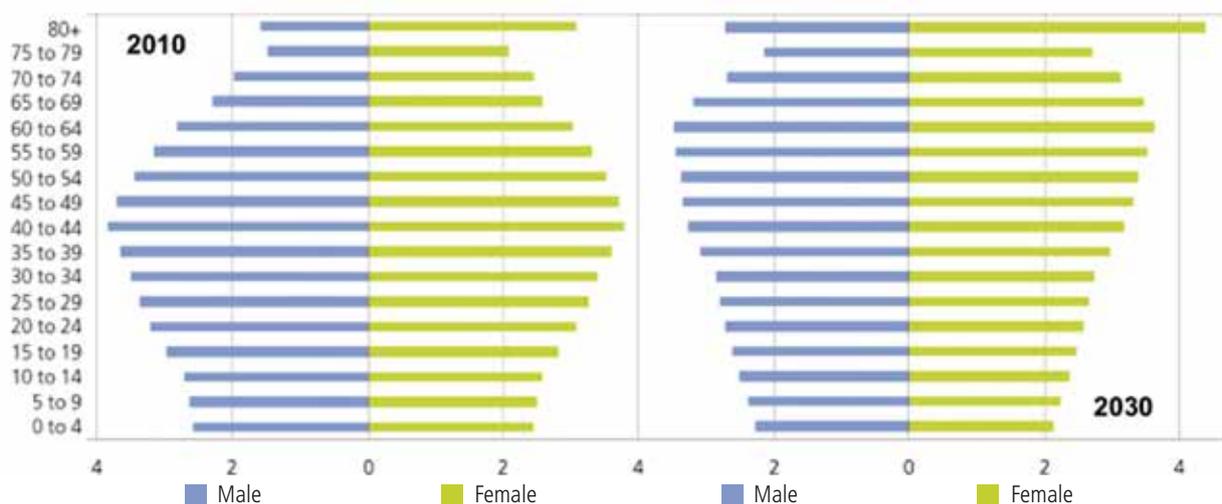


Figure 53: Ageing in the EU27 within the next 20 years, whereby the total population will remain constant

4. The selection of trends and their description makes use of the draft version of the Alpine Space strategy paper (Gloersen, E., Bausch, T., Del Fiore, F., Hurel, H., Pfefferkorn, W., Zavodnik-Lamovšek, A.) prepared as discussion basis for the future Alpine Space 2014-2020 program.

In most tourism areas, except for the cities and some highly prosperous destinations the change of local and regional labour force potential in tourism is becoming more and more visible. The decrease of young people choosing a profession in the tourism sectors causes serious problems to hotel and restaurant managers looking to employ local staff. Traditions and knowledge about regional specificities in the fields of lodging or health treatments might disappear taking with it an important basis for the Alpine typical tourism products.

Currently and within the next two decades many retiring people have a solid financial basis and therefore the option to travel. In the German source market today 66% of the population aged between 70 and 79 takes a holiday of 5 or more days at least once a year. In 2020 the percentage will increase to 77% while the market potential in the age group between 60-69 remains stable. At the same time, the number of families with younger children will decrease to 15% (Deutsches Bundesministerium für Wirtschaft und Technologie, 2008).

Older consumers with changing needs confront all enterprises offering products and services not only to the locals and the regional population but also within the global market to adapt their portfolio. This adaptation has to reflect the effective existing additional needs elderly people have in the field of the low-barrier hardware and age based services. Moreover, elderly people do not want to be treated as "old" or "seniors" in a stigmatizing way. They prefer to continue with their personal way of travelling and follow their main travel interests for as long as possible.

The demand for services in the field of healthcare and cure will increase. In connection with tourism, the sectors dealing with disease prevention and revitalization are a fast growing market. The target group of the so called LOHAS (lifestyle of health and sustainability) is one of the most interesting markets to Alpine destinations. Being aware of the need of a long working life up to an age of 65 or 70, middle aged people start looking for a healthy life style including nutrition and sports. As younger families today often have financial restrictions, models of all generation travelling of families (grandparents with their children and grandchildren) will also be a growing market.

E.3.1.3 ENERGY AVAILABILITY

Tourism is based upon the possibility to move from one place to another. In case of long distances the use of modern transport is indispensable. However, also many services and activities in a destination require the availability of energy: accommodation, spa areas, ski stations, buses and trains within a destination. The availability and prices of energy have a significant influence on modern tourism supply and destination development. Very cheap prices for aviation

petrol in combination with the liberalization of the air transport in Europe and partially worldwide created the basis for the development of new destinations, especially in the Mediterranean. At the same time, they opened new options for Alpine destinations, e.g. in winter sports tourism with airports in Alpine cities like Salzburg, Innsbruck or Bergamo. Moderate changes in prices, often caused by speculations on the lack of oil availability have already had a strong influence on the competitiveness of tourism products because of very high price elasticity of tourism demand: even slight changes in prices can shift consumers' decisions to go somewhere else.

The dynamics of the world of tourism are still closely linked to world economy and thereby to the availability of oil at moderate prices. In the World Energy Outlook 2008 (WEO) the international energy agency (IEA) forecasts a stagnation of oil production until 2030 and a parallel growing demand. Other scenarios state that already in 2010 the maximum of global oil production (Zukunftsanalyse, 2010) was reached. Because of the nuclear disaster in Japan the future of nuclear power in some European countries, especially in Germany and Switzerland, has been seriously reconsidered. Step by step reduced availability of traditional non-renewable energy resources (especially oil, gas, nuclear power) raise the question if energy efficiency and share of renewable energy sources increase faster in relation to the decrease of old sources availability. The absolute energy prices will most likely increase. Thereby the central question is whether the relative price of needed energy will be kept stable because of improved efficiency. Those industries, economic sectors (and especially transport) with high-energy consumption will be under pressure.

Many technologies in tourism and the related transport sector are currently already of a very high standard. Due to this, the technological advance will not be potentially as fast as the increase of energy prices. Examples for this are all kinds of transport equipment, artificial snow making facilities, large bath resorts, ice skating halls or concert halls. The field of transport for long distances will make up for a significant part of the travel price.

The debate on climate change and a future concept of energy supply might cause an increasing demand for carbon footprint neutral tourism products. The national and European obligations out of the UN climate convention will cause additional efforts in the field of carbon neutral energy supply and a very dynamic improvement of energy efficiency. Moreover, the tourism sector will be a topic in this debate having a strong influence on demand and supply. In any case, due to their nature and diverse natural resources like water, sun radiation, wind and biomass, the Alps provide at least very good conditions for the production of renewable energies.

E.3.1.4 GLOBAL AND CONTINENTAL MARKETS

The Alps are one of the first tourism destinations in the world. By now, most of the regions have developed tourism activities.

Tourism industry a global business

The main reason for globalisation lies in the decreasing costs of distance, including transport related costs, trade barriers, time factor etc. Lower costs reduce the price of goods and services, make the exchanges of ideas easier and increase the mobility of people. The European policy on free movements of people has direct effects on the development of Alpine tourism by facilitating working opportunities, travels and trips within the EU-countries (Schengen area).

Nevertheless, globalisation and the increased mobility also put barriers to the Alpine tourism prosperity. It leads to a hardening of the international competition. The competition between territories increases and spreads to a global scale, notably with the emergence of new destinations, sometimes distant but competitive, thanks to the decrease of the costs of transport. Flight tickets are still relatively cheap, allowing exotic destinations to be in competition with tourist sites that are nearer, but situated in countries with a higher standard of living and higher living costs. Short trips have also considerably changed. Even if it is known that some Europeans are willing to book low-costs flight tickets to come and ski in the Alps for the weekend, it is also the other way around, with people hesitating between a day in the mountains and a weekend in a European capital city. However, the ever growing demand for energy and the inevitable increase of the costs related to it in the near future (oil first and foremost) could change things in the transportation field and greatly affect tourism and tourists habits.

The interconnection on a global scale of economic and financial systems that resulted from market liberalisation shows its fragility again through the current financial crisis. Tourism may also be concerned, but it is relatively resistant to crisis, as the data of the UNWTO shows. Often it leads to a short term increase of tourism in near and secure regions. Some studies show that the global conjuncture has a strong impact on the number of overnight stays in tourism (Credit Suisse, 2011). On the other hand, tourism has in several parts of the Alps (e.g. in Southern Bavaria) so far been relatively resilient to the crisis. However, it is too early to determine the real impacts of the on-going financial crisis on Alpine tourism. Currency exchange rates are also one of the main factors influencing tourism. Even if the introduction of the Euro has slightly moderated this for the Alps, the rates of the Swiss Franc, the British Pound and the Dollar keep influencing the attractiveness of Alpine tourism, for tourists from outside and inside the Alps. For example, the recent strength of the Swiss Franc in comparison with other currencies has led to a decrease of the Swiss tourism attractiveness in relation to the other Alpine countries.

Furthermore, globalisation tends to a certain standardisation. Offers become increasingly closer and interchangeable. The demand reacts in demanding more authenticity (FST, 2011). This trend leads to the question of the economic position of mountains and their strategy to promote their potential and their comparative advantage to create an attractive, competitive and sustainable tourist offer.

A problem caused by the need to grow to be able to compete in a global market, creates increasing pressure on the limited natural Alpine resources. The Alps are an attractive location for private and commercial investors globally.

Element for discussion: Landscape consumption caused by limited resources and increasing demand

CAA – Club Arc Alpin

Pristine natural and cultural landscapes are significant for the singularity of the Alps in the tourism competition. The green cultivated meadows near the valleys, but also the higher areas of the mountains are the main tourist attractions and furthermore they are essential for the rich biodiversity of the Alps. There are several factors which threaten mountain agriculture, i.e. the general intensification of farming and the abandonment of areas which are difficult to reach and/or to work on because of the steep slopes. For farmers, tourism often seems to promise more and easier profits. Additionally, the Alpine nature and landscape depends on conflicting land-use demands for settlement development, economic purposes, transport, recreation, nature conservation or energy production. The tourist sector represents an important consumer of land area and nature in the Alps. It is tourism itself with its infrastructure which is contributing to the changing appearance of the Alps, by:

- hotels, apartments, second homes;
- cable cars, ski lifts, ski slopes, reservoirs for the production of artificial snow;
- Alpine adventure installations;
- golf courses;
- streets, parking areas.

In addition there are development measures of infrastructure in other sectors, which also imply a loss of pristine nature and landscape.

- energy infrastructure: Storage reservoirs for power stations are not caused by tourism, but their construction has consequences on tourism: damage of landscape and its attractiveness and impact on the natural balance. This impact applies to all kinds of energy infrastructure;
- transport infrastructure, especially the extension of bypass roads and forest roads;
- protective structures as consequences of climate change like avalanche barriers.

Soil consumption, urban sprawl, sealing and loss of natural and cultural landscape cause not only less attractiveness, but also less biodiversity and increasing hazards.

The problem is concerning valleys and villages, but also wild areas and protected areas. Sustainable forms of tourism as mountaineering and hiking are losing part of their base. Unspoiled mountains could rather be the touristic unique selling proposition of the Alps.

E.3.1.5 TRANSPORT SYSTEM

The technological progress in the field of transport was the backbone of the Alpine tourism development. The invention of railways, buses, trucks and the motorcar enabled the population living far away from the Alps to reach them in short time and at relative low prices. In the second half of the 20th century, transport by plane emerged more and more as a cheap mean of transport to cover long distances. At the same time, the construction of high-capacity transport infrastructure made the valley and peripheral areas of the Alps more accessible.

Each improvement of the transport system, which is a combination of infrastructure and technology, leads to more transport capacity but also to development stimuli for better connected regions. The pressure of real estate market on high attractive nature or unique cultural heritage in the Alps grew continuously until new bottlenecks emerged as physical capacity limit in the transport system. The transport of goods grew in parallel and exponentially, because of the common European market and the globalization of the economy. The overlapping of transport of persons and goods regularly brings the system to its limits, especially during tourism high peaks seasons.

Nevertheless, each bottleneck caused additional pressure on politics to improve the transport infrastructure and go back to a very good accessibility. A spiral of consecutive growth, new bottlenecks, improvements and further growth caused an overall impact on Alpine transport. Impacts were so severe that the population along the transport axes or near to airports reacted with strong resistance against a further growth. Furthermore, a higher sensitiveness and

new awareness of the environmental impacts of transport on nature and people lead to many additional requirements to fulfil in the construction of infrastructure. This makes transport infrastructure projects more expensive and slows down the extension of transport infrastructure.

On this basis, the future development of the Alpine transport system will no longer entail large scale projects (except for some main rail projects). The focus is on much more punctual improvements and especially the better and efficient use of existing capacities. Increasing energy prices open a big opportunity to public transport systems to win back customers, but they have to reflect the changing needs of future customers concerning low barriers, service and flexibility.

The average accessibility in the Alpine area ranges from medium to good, according with ESPON criteria. Finally, an extension of transport infrastructure and accessibility is not in every case an advantage for tourism, as tourism destinations may lose their attractiveness, the quality of remoteness and experience eventually changes of economic structures through an increase in day tourisms.

E.3.1.6 KNOWLEDGE AND INFORMATION

In the past, knowledge and access to information was a privilege of the old leading economies. Today, information and knowledge as a result of R&D move fast around the globe. Especially if knowledge is not linked to traditions and local/regional resources (human/natural resources) only the speed of innovation decides about competitiveness. Because of a fast increasing academic basis in nearly all countries in the

world and the spreading of R&D results in a global scientific and economic community, competition over the “best heads” will increase. In the tourism sector, the knowledge about all kinds of soft- and hardware standards in combination with management and business administration is available and implemented globally.

Tourism is not a high technology sector itself; however, it makes use of technologies through the entire service chain. The continuous improvement of the service chain is strongly linked to knowledge transfer or cooperation with other sectors as for example all kinds of innovations in mountain sports equipment, outdoor articles or the field of e-mobility. Furthermore, some Alpine tourism and recreation-linked enterprises developed a world market leading position as planners and constructors of SPA areas, ropeways, ski and boot manufacturers, climbing equipment or artificial snow making installations. Additionally, specific

computer software for the Alps is being developed and tested: destinations management systems, GPS-based 3D navigation and information systems or mobile Apps to support guests during their stay. The cooperation between leading research institutions and technology enterprises with private tourism entrepreneurs and other stakeholders in the different tourist areas to use knowledge and support innovation is a key issue.

As in the field of production the Alps are scarcely competitive because of their labour and other location related costs, the knowledge of traditional Alpine culture alongside innovation and technology to offer an Alpine authentic quality experience is a success factor. The immaterial cultural heritage, which creates the Alpine authentic atmosphere such as architecture, food production and cooking, health treatments, visiting of mystic places and so on, has therefore to be seen as an important part of this knowledge.

Element for discussion: “The thorny trilogy”: Car-Real Estate-Snowmaking

Philippe Bourdeau, Institut de géographie Alpine – Université Grenoble

The world of mountain tourism is marked by numerous uncertainties and structural crisis factors which climate change reveals and often accelerates: competition from other tourist destinations, the growing division between large and small resorts, new recreational practices, the ageing of the tourist population, more stringent environmental quality requirements, the social question of seasonal work and risk management.

What we can call “Car-Real Estate-Snowmaking” syndrome appears as a thorny trilogy of solution-problems which symbolise an accumulation of structural and functional handicaps:

- in most mountainous areas as elsewhere, the car, the major vector of the extension of tourism to the masses and the preferred means of transport to winter sports resorts, is a paradoxical source of freedom of movement but also of constraints and impacts. In addition to the question of the seasonal saturation of resort access roads, the problem of the cars in resorts (traffic, parking, noise, pollution, its relationship with pedestrians etc.) is today a major challenge in both summer and winter;
- the second “driving force and curb” of winter tourism is real estate. It is commonly acknowledged by the observers and operators concerned that for forty years the real-estate construction industry has provided external finance for investments in ski lifts. Thousands of new beds are built every year in the Alps, despite the fact that there is increasingly less of a connection between the numbers of active tourists and the real-estate market. Sometimes this headlong rush by the real-estate market is broadly connected to the perverse effects of tax incentive measures. This does not always solve the problem that winter sports resort management companies have, which is to compensate for the large numbers of beds leaving the rental market due to obsolescence or speculative strategies;
- artificial snowmaking is the last problem-solution of this triptych. The more frequent measure chosen to deal with a lack of natural snow, it is apparently becoming an increasing source of environmental and socioeconomic impact that is now being recognised by most observers, (OECD, 2007; CIPRA, 2004; OECD, 2006): the increased “artificialisation” of ski areas caused by the installation of snowmakers and tracks redesign, with consequences for biodiversity and consumption of energy and water. The question of providing a water supply for snowmaking facilities, a very controversial topic that features prominently in the media, is particularly emblematic of the global nature of the problems posed, whether they concern the modification of the flow rate of mountain streams and rivers and the resulting reduction of biodiversity, the construction and filling of the increasing number of progressively larger retaining reservoirs, competition with drinking-water supplies or water loss through evaporation. However, the conditions for the artificial production of snow are also increasingly problematic in ecological and energy terms, particularly where making snow at above-zero temperatures is concerned.

E.4 UPCOMING OPPORTUNITIES AND THREATS LINKED TO MAIN ALPINE TOURISM TYPES

E.4.1 DRIVING FORCES LEADING TO OPPORTUNITIES AND THREATS

The concept of a SWOT analysis foresees to list firstly the main Strengths and Weaknesses (SW) of one or several strategic unit(s), which in this case are the different tourism area types or the Alps as a whole unit. The SW elements are then combined with strategic relevant external driving forces. The impact of a driving force can lead to either an opportunity or a threat starting from a strength or weakness. By this the following combinations can appear:

No relevant impact	Many strengths and weaknesses are robust against driving forces. E.g. a traditional high health treatment competence of a destination will not be influenced directly by climate change.
S-O	A driving force supports an already existing strength for a further development. E.g. demographic change supports a strong health destination for further development by enlarging the market potential.
S-T	A driving force counteracts an existing strength. Climate change will create strong pressure to winter ski destinations at lower or medium altitude, even if these destinations offer a very strong product today.
W-O	Coming from a weak position a driving force helps to turn the situation. The trend towards the promotion of regional authentic and reliable products is encouraging rural areas with rich cultural heritage but underdeveloped tourism to enter this growing market.
W-T	A driving force will potentiate an already existing weakness. In tourism regions with already now unbalanced development of the population by low birth rate and emigration demographic change will boost this trend and increase labour market problems of the tourism sector.

In the following section opportunities and threats are listed, which tend to be of a general character in the Alps or a certain tourism area type. Of course they only describe scenarios and in each single case there are examples and specific situations with differing potential of opportunities and threats. For instance, climate change will cause in the southern Alpine cities having a relevant share of tourism more frequent and extreme heat peaks in summer than in the northern Alps. Nevertheless, this will be listed as a general threat to city tourism in the Alps. It is up to the customer and the responsible tourism stakeholders of each Alpine region to

decide if the opportunity or threat is of a major importance to their specific destination.

E.4.2 GENERAL OPPORTUNITIES AND THREATS

Opportunities: Increasing prices of energy and transport improve the competitiveness of nearby source markets located in tourist regions with good accessibility, as the Alps are compared to long distance destinations. By this the improvement of accessibility by high quality and energy efficient transport systems can create a strategic advantage against competitors offering mid and long distance flight transport. In an increasingly uniformed globalized world, unique and authentic products with a long lasting cultural background will find a growing market of consumers willing to pay a fair price. The number of elderly people, who will continue to travel in the future together with the entire family, is growing and they are a welcomed target group even though they need a barrier adaptation of hardware and services. Climate change may have a positive impact in the Alps as a summer destination. Warmer summers can increase the competitiveness of the Alps vis-à-vis other summer destinations.

Threats: an increasing number of natural disasters will likely be caused by climate change in Alpine regions and will create an image of the Alps as a dangerous destination. High investments might be needed to maintain transport and large-scale infrastructure with an increasing vulnerability caused by extreme weather events. Emigration of the younger local and regional population causes problems to the safeguarding of potential labour force in the service sector, especially low paid jobs and basic qualification sector. High transport costs and new European (Carpathians/Caucasus) and globally emerging mountain destinations may undermine the development of currently attractive long distance source markets from northern and eastern European countries, such as Arabic countries and Asia. The change in the landscape character because of climate change, by the progressing consumption of land by settlement and transport and also the decline of conservation because of farm closures or an on-going overflow of the cities into the countryside, may reduce the supply of authentic Alpine tourism offers.

E.4.3 TYPE SPECIFIC OPPORTUNITIES AND THREATS

Besides the aforementioned general opportunities and threats, there are also some additional types identified as follows:

Type 1: Foothill summer destinations

Opportunities: Heat peaks in the large urban agglomerations

as well as the Mediterranean and reduced precipitation in summer attract people to lakes and rivers as summer-resorts. Because of very good accessibility also by public transport, increasing energy prices have a minor influence on the total price than competing flight-based destinations. The multioptions give the opportunity to plan a trip combining activities with visits to nearby cities or higher mountains tailored to all generations in the family. The growing share of travellers without children is a large basis for stimulation of low seasons and to start the tourist season earlier and end it later. A new understanding of winter experiences in an authentic Alpine atmosphere can create options also in the winter season.

Threats: Problems of strong single sided seasonality will increase in many destinations. The general loss of labour force in the service sector will cause additional problems to hire qualified staff. Slow adaptation of accommodation and infrastructure to low barrier concepts prevents destinations from benefitting from market growth in the sector of elderly travellers. Increasing energy prices cause problems in trying to keep a high quality public transport system running in remote rural areas.

Type 2: Health destinations

Opportunities: The growing demand in the field of prevention but also high specialized health treatments offer many options to health oriented destinations if they find a way to develop a clear qualification profile and a leading position linked to a certain type of prevention and therapy. The LOHAS (lifestyle of health and sustainability) target group allows regions with multioptional services (from recreation, to wellness, nutrition and sports) to win market shares. Thereby, all regions with a "pure nature" profile also have to offer regionally produced food, carbon neutrality, regional materials in architecture, health remedies of the region and authenticity of all elements of the service chain including local employees.

Threats: Because of the lack of specialization and low barrier accommodation some destinations will not benefit from the growing demand of elderly travellers. A predominant presence of average quality "me-too" products available all over the world prevents the use of local and regional potential and the creation of unique authentic products. Unsolved problems in transport, such as weak accessibility by public transport, luggage transfer to accommodation, high local traffic volume, air pollution and noise counteract the development of the Alps as a reliable premium health destination.

Type 3: Nature experience destinations

Opportunities: Globalization and urbanisation strengthen the wish of modern civilization to escape from daily stress to a sound, slow and pure environment during holidays. Nature experience therefore is a growing market for all ages and social groups. The richness and diversity of Alpine

nature has an extraordinary potential to offer experiences and recreation, to give a feeling of an idyllic world. Through services and information systems guests can learn and understand the local context in a modern and enjoyable way. By selling regional manufactured products additional income can be created to keep the younger population in the regions and to safeguard landscape conservation and living cultural heritage. Carbon neutrality of the regions can become reality by using the high potential of local energy resources.

Threats: The high attractiveness stimulates demand for second home or retirement residences and leads in case of missing regulation to an overburdening of settlement as well as a significant increase of prices. In addition, a strong seasonality will exacerbate the already existing problems to accommodate service staff during high season. The income opportunities from the energy sector may lead to a change of cultivation and forest management. Technical power production installations also have a negative impact on nature and landscape.

Type 4: Alpine cities and villages

Opportunities: Cities and villages are already investing in low barrier infrastructure as well as the improvement of their public transport systems. Larger hotels of all comfort levels will provide low barrier or partially barrier free rooms and facilities. Day SPAs bring wellness and recreation with high quality into city hotels and offer additional options for a longer stay. The accessibility of larger villages will benefit from the improvement of higher level transport infrastructure as railway networks, extension of highways and airports as increasing energy prices affect costs less in the case of direct and short connections. Shops with traditional products local and regional food and restaurants from the region combined with global brands offer a unique shopping experience. Cultural life based on local and regional heritage and winning a unique profile by yearly festivals is an attraction to guests not mainly interested in mountain experiences.

Threats: Even though extreme events caused by climate change do not only affect cities, reports on damages or extreme weather, e.g. heat peaks in summer or flooding, will temporarily give Alpine cities a negative image in the headlines. In case of missing management and regulation of retail trade, uniformity and exchangeable brands will gradually push local and regional trade away. This is likely to diminish the overall attractiveness of Alpine city tourism and reduce the regional added economic value. Those cities avoiding the adaptation of infrastructure and services to the low barrier needs of the elderly will not benefit from the growing market of elderly travellers.

Type 5: All season inner mountain destinations

Opportunities: The growing demand for authenticity in combination with pure nature and well cultivated landscape

can be offered by this type of tourism all year round (see also type 3 but mainly summer). In the shrinking market of families with children up to the age of 12, highly specialized products such as those based on pure environment and healthy food combined with children entertainment programmes in the Alpine nature will find their clients. The profile of a pure and healthy destination can be underlined by carbon neutrality of all actors within the destination. A new understanding of winter experience in the mountains not only linked to skiing will attract new customer groups to the winter season.

Threats: Climate change will step by step reduce snow security and create economic pressure to low and mid altitude ski resorts. In a rather shrinking market for Alpine skiing – elderly giving up skiing, not any more enough young beginners to substitute – investments in infrastructure and snow security will create additional over capacities without profitability. Local stakeholder groups from ski sport will often prevent an adaptation besides ski sports and therefore be against innovation in the winter season.

Type 6: Ski resorts

Opportunities: As climate change is a slow process, which in the next 20 years is very likely firstly causing low altitude and smaller ski areas to be forced to disappear from the markets, the large arenas at high altitude will be able to keep their market position in a shrinking market. Innovation in the field of summer adventure and sports offers, making use of the infrastructure, events and group experiences for younger age groups will attract customers to ski arenas also in summer. This could be a limited but economically interesting market.

Threats: Fast increasing energy prices make a strong pressure on the profitability of all ski stations. The compensation of customers from shrinking traditional mid European markets with new clients from Eastern Europe, Great Britain and Scandinavia will not work anymore because of higher transport prices and new offers in Scandinavia, the Carpathians and Caucasus. Spoiling the landscape

aesthetics by technical infrastructure, soil erosion and large accommodation complexes hinders the development of a reliable green economy. In addition please see threats related to skiing of Type 5

Type 7: All season tourism in boarder mountains

Opportunities: In summer comparable opportunities as type 1. In addition, there are also good market opportunities in winter, especially in case of either snow security because of higher altitude ski resorts or new winter experiences products (e.g. winter hiking). The multioptionality also in winter has to be seen as an advantage to address all generation family tourism.

Threats: Destinations in proximity of up to 2 hours from large agglomerations around the Alps change more and more to second home and retirement areas replacing the tourism core business. Very high prices of ground and housing space speed up the emigration of young people and block the return of high-educated locals to settle and found a family. This narrows labour market and will be an issue for the transfer to hotels and farms of the next generation, negatively affecting investments and causing problems in the field of landscape conservation. Most ski resorts are heavily endangered by climate change (see types 5 and 6).

E.5 CHALLENGES TO BOOST SUSTAINABLE TOURISM IN THE ALPS

Many but not all of the listed opportunities or threats are linked to the sustainable tourism approach. Considering the Tourism Protocol of the Alpine Convention and the concept of sustainability as described in Chapter A, the following main challenges relevant to all or many types of Alpine tourism regions can be identified out of the SWOT analysis and the listed driving forces:

Environmental challenges	
EN1: Keeping biodiversity and protecting natural resources as the essential backbone of Alpine tourism	A strong part of the image of Alpine tourism is the richness of nature and purity of the natural resources of the Alps. Even visitors of Alpine cities are fascinated by the surrounding landscapes. Activities in the Alpine nature can be light or intense sports, leisure, health supporting animation or specific nature experiences as well as healthy food, wellness or health remedies are all based on unspoilt nature, natural resources and the related ecosystem services, such as biodiversity.
EN2: Reducing the negative impacts of all kind of tourism induced mobility	Looking at the overall impact balance of tourism, the transport to and from destinations as well as on site mobility is one of the main problems and it is independent from the type of tourism. The topography of the Alps multiplies the impacts locally along valleys or passes. Air pollution, noise and a permanent pressure on land-use by enlarging the transport infrastructure are strong obstacles against more sustainable tourism.

EN3: Reducing or even stopping land consumption caused by new tourism projects	Soil is one of the narrowest resources in Alpine tourism regions. New projects in the field of tourism or extension plans for hotels, apartment houses, cable cars, slopes, water worlds, fun and sport parks, golf courses but also in the periphery such as second homes, roads, parking places, commercial and outlet centres use enormous areas of land every year.
EN4: Handling the higher natural hazards risk potential	Not only climate change but also structural and technical interventions, declining landscape conservation, new paradigms in agriculture and forestry caused by production of renewable energy lead to a higher damage potential from natural hazards. Natural disasters in an Alpine region can cause relevant short-term reductions of tourism and requires great effort to bring a destination back on the market as a secure region.
Social and cultural challenges	
SC1: Reducing the social effects of seasonality	Seasonality causes serious negative social effects to people working in the tourism sector but also to the rest of the local population. These include in particular the effects of temporary unemployment as well as the need to go abroad after the season. In addition to that the often extreme workload during the high season make tourism jobs unattractive to people with families and cause social problems. Furthermore high tourism intensity in summer or winter often causes increased living costs and real estate and can also mean additional taxes for the local population due to tourism infrastructures.
SC 2: Balancing price level and income of local population	In many tourist regions a significant disparity exists in the cost of daily life and income of locals. The high price level in the real estate market creates serious constraints to the local population as well as to economic sectors to start up or expand business. The average income coming from tourism is under average compared to other branches, as it creates mainly basic service jobs for unskilled workers and only very few options to higher qualified employees.
SC3: Understanding "low-barrier spaces" as a matter of quality of life	The reduction of barriers is not only a question of public space. All kinds of infrastructure, private or public, should follow a low barrier concept which is a benefit to all generations: parents with buggy benefit as well as people with handicaps. The Alpine topography is in itself already a challenge to these people and therefore should not be reinforced by additional constraints.
SC4: Keeping cultural heritage as the core of a unique way of living	The image which the Alps have in Europe and the world is that of a combination of mountains and nature on one side and typical Alpine culture on the other. Material and immaterial cultural heritage create a specific environment and unique awareness of life. Besides nature and landscapes this is a strong motivation for local residents to stay in their homeland.
Economic challenges	
EC1: Further improvement of accessibility and regional mobility by sustainable transport systems	Tourism depends on accessibility to and mobility within the destination. A very good connectivity of source markets and the Alpine destinations was in the past and will also be in future an essential requirement to stay competitive and benefit from the drivers energy and demographic change. To resolve the apparent contradictions of improving the transport system and significantly reduce transport negative environmental impacts, (see environmental challenges) as well as drain off towards big economic centres (losing population and eventually the attractiveness of remote areas for tourism by high developed accessibility) is a key task for the future of Alpine tourism.
EC2: Safeguarding the labour force potential of tourism sector	Tourism cannot substitute the human labour force by automation. Quite the contrary; future guests in fact will have demands for higher quality services, in fields such as health treatments or nature experience. Social and demographic changes are already causing serious problems to get local youngsters to enter these job markets. Hiring staff from outside as alternative is a challenge for integration and keeping the expected level of Alpine authenticity.

EC3: Securing profitability regarding disproportioned increasing energy prices	Nowadays, energy already accounts for a significant part of the overall costs in tourism. Some types of infrastructure such as cable cars, slopes with artificial snow, water and fun parks but also heating in hotels and spa areas have, in comparison to other tourism regions, a high to very high energy consumption. Therefore the ability to improve energy efficiency as well as increasing the share of local and regional produced renewable energy in order to gain more independency from world energy market is an issue that will determine the strategy for the future.
Cross-sectoral challenges	
CS1: Strengthening innovation and management capacity of Alpine tourism actors for a further sustainable development	The fragmented structure of Alpine tourism with a very high share of SMEs as well as still high public participation in destination management constraints or slows down systematic innovation. Additionally, in destinations constraints local culture there is a general reluctant attitude towards innovation. To transmit the need of innovation across to local and regional tourism stakeholders by demonstrating the approach of sustainable development is not contradictory to conservation is a first step of general capacity building in this field.
CS2: Improving regional welfare by strengthening co-operation between tourism and other sectors	Even though in many tourist regions there is a basic local and regional co-operation between tourism and the other sectors of the regional economy, there is still a high potential to go far beyond the current status. The increased demand for renewable energy, safeguarding of the local water supply and the preservation of traditional cultural landscapes could be a starting point for a more systematic approach in many regions.
CS3: Making the benefit of sustainable tourism offers more visible to consumers in source markets	The share of consumers taking a deliberate travelling decision regarding sustainability is still very low. The travellers' personal demands primarily influence their travel decision. The key for the gradual increase of demand for these products is to make them understand that sustainable products could better meet their needs.

F. PROMOTE SUSTAINABLE TOURISM IN THE ALPS

In the descriptive and analytical parts of this report not only the impacts of tourism on the Alps, but also examples of good practices on how to create sustainability in the tourism sector were presented. In the last chapter, the systematic analysis of different territorial tourism types allows to compile a list of general present and future challenges which the Alpine tourism sector has to face.

F.1 OPTIONS ON HOW TO MEET CHALLENGES AND BOOST SUSTAINABLE TOURISM

Before drawing a list of ideas for interventions and activities by the Signatory States and related regional administrative units, a general overview of the different levels and tools should be presented.

F.1.1 DIFFERENT INSTRUMENTS TO FOSTER SUSTAINABLE TOURISM

In general politics can make use of different tools to promote the development of sustainable tourism in the Alps. These instruments can be structured as follows:

- L1: New legislation addressing sustainable tourism: laws can provide direct or indirect support to sustainable tourism development. In this sense, legislations are meant to avoid negative environmental or socio-cultural impacts as well as rules making sustainability a requirement to access funding programmes;
- L2: Improvement of the implementation of existing legislation;
- L3: Support of sustainable tourism development with declarations or incentive programmes and strategies issued by the States and regions;
- L4: Activating stakeholders in the field of sustainable tourism by facilitating public participation to policy making processes;
- L5: Communication and awareness raising activities for consumers with regard to sustainable mountain tourism;
- L6: Supply of incentives for tourists for behaving in a sustainable way.

Different options on how to meet the identified challenges will be presented in the following section. The list given above represents ideas and related potential measures at different levels (L1 for “new legislation” to L6 for “supply of

incentives”). They shall give an overview on the broad variety of starting points for a further sustainable development of Alpine tourism. The focus is on ideas which can be implemented by the Signatory States or at regional level. Many additional options exist especially for entrepreneurs and guests/consumers, which are outside the direct influence of the public administration and legislation. Some of them have already been presented with related examples of good practice in this report, in the chapter on the service chain, and therefore are not mentioned again.

F.1.2 OPTIONS FOR INTERVENTIONS TO MEET THE MAIN CHALLENGES

The options for interventions refer to the challenges outlined in chapter E.5.

The list is about possible interventions which support the improvement of Alpine tourism towards sustainability as an integrated concept and therefore addresses all three dimensions: ecology, social and cultural aspects as well as economy. Making use of these interventions will also support the transition of Alpine tourism towards a green economy.

F.1.2.1 SAFEGUARDING THE NATURAL RESOURCES AND THE ENVIRONMENT AS THE BACKBONE OF ALPINE TOURISM

The preservation of biodiversity and the protection of the natural resources as the essential backbone of Alpine tourism can be achieved by

- developing action plans of a destination’s positive contribution (participatory process) in making tourism in Alps less detrimental to nature conservation, with an emphasis on experiencing and respecting nature (L3/L4);
- improving the existing environmental impact assessment for tourism (L2);
- combining investment in snow-making equipment with the assessment of the consequences of such techniques on the environment and/or direct public funds towards other alternatives (L2/L3);
- designation of sensitive areas in spatial planning, where tourism facilities as well as tourism activities should not be developed (further) (L2/L3);
- preservation of the traditional cultural Alpine landscapes by supporting environmentally-friendly agriculture through an enhanced cooperation with tourism stakeholders (e.g. promoting farm-based products, on-farm holidays) (L3);

- promotion of successful activities in the field of networking and on site implementation of protection activities supported by tourism (L4/L5);
- tourist flow control, installation of quiet areas and restriction of activities in order to safeguard habitats for target species conservation (L1/L5);
- raising awareness among stakeholders, local population and visitors about biodiversity, natural resources, as well as on the importance of the implementation of conservation measures (L5/L6).

The negative impacts of all kind of tourism-related mobility can be reduced by

- implementing the Transport Protocol of the Alpine Convention (L2);
- encouraging environmental audits for tourism destinations containing a "carbon balance report" based on the ecological footprint concept (L3);
- fostering the accessibility of tourism destinations by public transport for guests and local population (L3);
- promoting an efficient offer of soft mobility within destinations by strengthening the cooperation between local transport operators and the tourism industry in the resorts (L3);
- providing information on the public transport offer to, from and within Alpine tourism destinations (L4/L5) for local tourism actors, local population as well as guests;
- integrating public transport into travel packages offered by public destination marketing organizations (L4);
- promoting good service quality in public transport in terms of availability of diverse and low-impact modes of transport, frequency and inter-destinations and cross-border connections (L2/L3);
- information campaign on the environmental impacts of travel and on possibilities to save and reduce CO₂ emissions (L4/L6);
- providing "carbon footprint calculators" comparing the impacts of individual and public transport on consumers (L6).

The land use due to new tourism projects or secondary effects can be reduced or even stopped by:

- fostering continued implementation of the Tourism Protocol of the Alpine Convention, Art. 9 (L2);
- studying possible limitations on the construction of second homes by establishing a maximal percentage rate of the total number of residential units within communities and reducing the area that can be used for constructions, or introducing compensatory taxes (L1);
- achieving a sharp reduction of land consumption for tourist infrastructure as an objective of spatial and territorial planning especially in glaciated, peri-glacial and wilderness areas (L2);
- fostering assessments of soil functions that should be

included in all planning processes in order to protect fertile agricultural soils and soils that need to be protected. For any losses of soil functions resulting from planning projects, compensatory measures should be binding (L2);

- strengthening the enforcement and effectiveness of existing laws and guidelines for environmental assessments when developing new tourism facilities (L2);
- giving preference to qualitative improvements against a quantitative enlargement of bed capacity considering existing tourism relevant settlement structures (L3);
- raising awareness on the effects of land use by tourism infrastructures as well as by all building and settlement purposes (L3/L4).

The adaptation needs in Alpine tourist areas induced by climate change can be managed by

- assessing the risk potential for new tourist infrastructure and activities (L3);
- supporting the development of Climate Change Adaptation plans of destinations including infrastructure and future offers (L3);
- fostering research and development with regard to best available techniques on the issues of natural hazards, weather forecasts and climate change (L3);
- promoting the exchange of information and project results dealing with climate change adaptation in the Alpine area (L4/L5).

F.1.2.2 KEEPING THE SOCIAL AND CULTURAL FRAMEWORK OF TOURISM BALANCED

Important social aspects of a sustainable tourism are:

- improvement of working conditions in the hotel and catering industry through labour regulations (L1);
- enforcement of the principle of low barrier planning in developing approval procedures of new tourism related building projects (e.g. entrance area, public restrooms, share of low barrier rooms and restaurant places) (L1/L2);
- support to all-year-tourism and the diversification of the touristic offer (L4);
- publication and diffusion of planning guidelines on "how to offer low barrier tourism" combined with a voluntary network of businesses in line with these criteria (L4);
- increased promotion of low-season holidays (L6).

In order to reach a better balance of price level and income for the local population in tourist areas it is important to take for measures:

- designating construction areas in territorial planning reserved to housing or businesses in other sectors (start-up centres / handicraft zones) of local population (L1/L2);
- facilitating the earmarking of revenues from property taxes on second homes to financing public services in the

- mountain communities (L1/L2);
- developing quality tourism offers combined with local/regional products and services (L3/L4).

Keeping a lively cultural heritage as core of uniqueness can be supported by

- setting up a UNESCO based inventory of material and immaterial Alpine cultural heritage as a unique feature of Alpine destinations (L2);
- developing sustainable tourist activities, which capitalize on regional traditions and local agriculture (L3);
- promoting participation of local population in designing and deciding about tourism development plans (L5).

F.1.2.3 STRENGTHENING THE ECONOMIC DIMENSION OF SUSTAINABLE TOURISM

Further accessibility and regional mobility with a more sustainable transport system can be improved by

- maintaining and improving the connections with long-distance trains or the European high speed railways network well connected to regional train and bus systems as well as the final destination including luggage transport (L2/L3);
- funding “zero emission” local transport systems (e-mobility powered by renewable energy) (L2/L3);
- strengthening the collaboration (service and technology) between tourism and local transport providers in order to elaborate attractive, clear, transparent and flexible services and offers at affordable prices for leisure and tourism transport (L3/L4);
- improving the provision of information on the public transport options for travelling to, from and within a destination (L5);
- strengthening the collaboration between railway companies and tourism stakeholders for sustainable mobility packages (L2/L3).

The labour force potential of the tourism sector should be safeguarded by

- making tourism sector attractive to young locals by the improvement of learning and working conditions as well as by an obligatory on-going training within companies (L1 labour law / L3);
- providing learning opportunities and good quality jobs for qualified and motivated staff to supply high quality tourism services (L3);
- ensuring good living conditions for seasonal service staff (cheaper accommodations on site, see also first objective social and cultural framework) (L3);
- establishing child care facilities with adequate opening hours for staff working in tourism (L3).

In spite of disproportionate increasing energy prices, the profitability of tourism companies can be supported by

- revision of local and regional regulations in the field of territorial planning of tourism areas in order to improve the energy efficiency in buildings (e.g. size of windows, angle of roofs, materials for construction, use of solar systems on protected monuments) (L2);
- awards to or labelling of energy-efficient tourism companies or services (L3);
- information about advantages and possible actions in the field of energy management and energy efficient building in the tourism sector (L3/L4).

F.2 TOOLS FOR THE SUSTAINABLE DEVELOPMENT OF ALPINE TOURISM

Beside the general options for interventions to meet the main challenges, it is necessary to improve or set up **operational tools** to implement the Tourism Protocol. Different tools and processes are already on-going throughout the Alpine region in order to enlighten the way to a more sustainable tourism. For a better implementation of the Tourism Protocol by all the stakeholders, these tools and processes may help diversification and innovation, quality and authenticity, sustainability of mass destinations and valorisation of rural touristic economy, involvement of local populations, information, education and promotion.

F.2.1 SHARING INFORMATION

The benefit of sustainable tourism products can be made more visible to consumers in source markets by

- additionally promoting brandings of Alpine sustainable products along the whole spectrum of sustainability, making the service and hardware quality visible (L3);
- establishing tourism and leisure activities which are directly linked to mountain farming (L4);
- facilitating and promoting the presentation of such offers at tourism fairs and support cooperation projects with national and regional tourism organizations (L4);
- disseminating examples and good practices (L4/L6);
- spreading information among stakeholders, local population and visitors about the importance of biodiversity and natural resources for the preservation of the unique natural and cultural landscapes in the Alps, which are the fundamental base for tourism (L4/L5);
- raising tourists’ awareness about unspoilt nature by involving the private sector, foster ethical behaviour and responsibility of tourists and businesses towards the

Alpine environment and society (L5);

- informing guests about energy consumption and emissions of tourist infrastructures and the sustainability impact of their stay (L5).

It is advisable to create a database, which will be regularly updated with core indicators about Alpine wide tourism sustainability if possible at LAU2/municipality level. This requires harmonized data according to mountain specific indicators on (sustainable) tourism for the Alpine territory. The work on this report showed significant gaps in this field. Therefore, an improvement of data availability and of a basic set of indicators covering the three dimensions of sustainability should also be an aim.

F.2.2 EUROPEAN AND NATIONAL STANDARDS AND SUSTAINABILITY RELATED MANAGEMENT TOOLS

Sustainability related management tools such as the European eco-management and audit scheme (EMAS) or "Corporate social responsibility" related initiatives can help large and medium companies to improve their sustainable performances.

There are also voluntary standards as the ISO 9001 for quality and 14001 for environmental management of societies.

F.2.3 LABELS AND SEALS

There are many labels and seals in the Alps, almost one for each part of the supply chain described in the previous chapter.

At European level, the Ecolabel "EU flower", created in 1992, helps the identification of environmentally friendly accommodation and services that have a reduced environmental impact throughout their life cycle, from the extraction of raw material to production, use and disposal. At national or regional level, there are many other eco certification systems that are predominantly voluntary label systems and are linked to a group of tourism suppliers, industry associations, quality standardization or institutions.

F.2.4 CHARTERS, GUIDES AND SURVEYS

Two types of approaches can be mentioned:

- the charters and guides to implement sustainable practices for actors in the tourism supply chain, which are based on voluntary or recommended actions;
- the official environmental studies or assessments of tourism

policies, programmes and projects, recommendations and orientations as study results (for instance for the large events).

F.2.5 MONITORING BY USING KEY INDICATORS

Many indicators are already in place to measure the implementation of the Alpine Convention's Protocols. The expert group tried to determine some specific indicators (see annex).

If indicators have to be implemented in any local or regional Alpine destination (in order to become a management tool for the destinations) first of all it will be necessary to check the data availability and comparability. The quality of data and the consensus between the different stakeholders should be prioritised over the quantity of measurements or indicators. Those measurements that do not have available data but are considered as key indicators will need to be developed and specific surveys should be carried out (on visitors, residents, enterprises, tourism employees, biotopes, habitats or typical animal populations). The procedure depends on the technical and human resources available in each destination considered. Implementation of indicators should be, in fact, feasible and realistic, making permanent comparability and monitoring possible.

F.2.6 CONTESTS

Some contests are organized each year by various organizations: associations, territorial bodies, States etc.

At European level, for example, the European award "European destinations of excellence" (EDEN) promotes sustainable tourism development models across the European Union. The project is based on national competitions that take place every year and result in the selection of a tourist "destination of excellence" for each participating country. For the Alps, the Alpine Convention organized a contest on sustainable tourism destinations in the Alps during the French presidency in 2009.

The dissemination of the results of these contests is very useful to stimulate the exchanges between the Alpine Countries and their stakeholders.

F.2.7 AWARENESS RAISING, EDUCATION AND TRAINING

The written documents, brochures, papers of all kinds on sustainable tourist information, education, awareness-

raising, training are so numerous that it is impossible to list all the initiatives taken by stakeholders on the Alpine territory.

All the tools and initiatives on the Alpine territory mentioned above are not always well known or advertised. That is why shared-web portals would represent a real progress connecting all the existing networks that are part of the sustainable tourism chain. The Tourism Observatory of the European Commission could therefore be the appropriate tool.

F.2.8 INNOVATION FOR SUSTAINABLE TOURISM

Strengthening innovation and management capacity of Alpine tourism actors for a further sustainable development can be reached by

- promoting a coordinated R&D sustainable tourism innovation network of universities, research centres, NGOs and the national/regional tourism boards (L2 funding/L3);
- setting up a program “lifelong learning” for Alpine tourism professionals with certificates accepted as ECTS credits at Alpine tourism universities (programs developed and held by network above) (L2 funding/L3/L4);
- supporting local authorities which diversify their activities and offer an alternative to Alpine skiing in winter, and spread the information in order to attract new customers (L3);
- promoting the Alpine Convention as a tool for the discussion on sustainable tourism among the Contracting Parties and also in the Working Groups and Platforms (L4).

F.3 BUILD COOPERATION PROJECTS AND IMPLEMENTATION

Regional welfare achieved through the cooperation between tourism and other sectors can be improved by

- fostering the consumption of local and regional food and craft products in restaurants, hotels etc. taking note of their effect on price setting (L3);
- enhancing the collaboration between tourism and agriculture/forestry by marketing of local/regional farm-based products and promoting on-farm holidays (L3);
- enhancing participation of all relevant stakeholders for consensus built actions and ensuring stable political support and leadership to sustainable tourism objectives in the Alps;

- disseminating the conclusions of this report (L4/L5);
- favouring/facilitating the pooling between a mountain tourist resort and its surrounding territory (valley, mountain range etc.) (L3/L4).

The on-going implementation of the Alpine Convention’s Tourism Protocol and the improvement of the sustainability performance of tourism in the Alps need the further coordination of national Alpine tourism policies. Interregional cooperation between the Alpine Countries is one of the main aims of the Alpine Convention. The framework Convention states in article 2 that “the trans-border cooperation in the Alpine region shall be intensified and extended both in terms of the territory and the number of subjects covered”.

However, in the tourism sector, this aim is not easy to implement: the destinations are in competition with each other, the local institutions and economies are different, there is only a reduced European or transalpine cooperation.

However, many cooperation programs exist as a part of the European Territorial Cooperation programs (ETC). In the ETC cross-border programmes, tourism relevant projects have been implemented to improve infrastructure but also to foster the innovation of tourist services and develop a common ground. Currently, the work on the future ETC programmes 2014-2020, in line with the EU 2020 strategy, the EU Sustainable Development Strategy and the Lisbon Treaty, is starting. The Europe 2020 priorities are:

- smart growth – developing an economy based on knowledge and innovation;
- sustainable growth – promoting a more resource efficient green and more competitive economy;
- inclusive growth – fostering a high employment economy delivering economic, social and territorial cohesion.

These priorities are well in line with the Alpine Convention Tourism Protocol. Therefore, new ETC cross-border programmes having specific tourism development priorities could be linked to the principle of sustainable tourism. In the trans-national programme the focus could especially rely on all kinds of trans-Alpine networking projects, as well as helping to gather knowledge and better integrate innovation into sustainable tourism.

The different options for intervention linked to the identified main challenges of Alpine tourism are collected in order to stimulate stakeholders to find ways for a more sustainable tourism. The wide range of fields of action within the sustainability triangle as well as the cross-sectoral tasks offer to all actors in Alpine tourism the possibility of improving its sustainability.

Finally, raising awareness among Alpine destinations and Alpine tourism stakeholders about the fact that the future of Alpine tourism is closely connected with

sustainability, could lead to improved performance in the sector. In turn, this improved performance could be approved by the tourists and could help to develop, in the long run, a brand of excellence in sustainable tourism that could be a starting point for the promotion of sustainable tourism in the Alps under a single transAlpine marketing concept "The Alps – a sustainable experience". In September 2010, the "the ALPS Event" took place in Innsbruck, Austria, where leading politicians of the most tourism-intensive Alpine regions in Austria (Carinthia, Salzburg, Tyrol, Vorarlberg, Upper Austria), Italy (South Tyrol, Trentino, Belluno), Germany (Bavaria), Switzerland (Grisons, Valais), and

Liechtenstein signed a manifest in order to achieve a successful position and strategical upgrade of the Alps as a tourist destination, www.the-alps.eu/page.cfm?vpath=mission. Currently, the network of the ALPS consists of the regions Rhône-Alps, Wallis, Graubünden, Bavaria, South Tyrol, Trentino, Vorarlberg, Tyrol and Salzburg. The overall aims of the ALPS are the strengthening Alpine tourism by strongly encouraging innovation, new inputs for development and the promotion of joint strategies. The Alpine Convention finally is an instrument creating and enhancing such cooperation strategies with the overall objective of sustainable development and creating quality of life.

New customers: cultural change in tourist activity

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The idea of the resort as a unity of place, time and action based on the functional coherence of the triptych "accommodation-ski lifts-slopes", can thus end up being circumvented or deviated by new interpretations of the mountain playground. One example is the striking contrast that can be observed between the rush to create vast resorts through the expansion and interconnection of ski areas, and the spatial micro-scale on which the emerging practices of young enthusiasts seem to be situated. A feature in a snow park, but also increasingly an ordinary slope, an "improved" bump, a rock, a tree trunk, a snow-covered flight of steps or the door of a building, become possible means of expression centred on set moves and shared emotions, in which "tailor-made" shaping and ad-hoc changes to the terrain using simple tools such as one's hands or a shovel gain importance in their own right, while the need for ski lifts becomes of secondary importance or superfluous. These selective or alternative games using the standardised resources provided by resorts, which favour proximity, simplicity and take place in alternative locations – and quite happily adapt to a lack of snow – also correspond to the aspirations of many visitors to get off the ski slopes or look for new fun places in which to express themselves, on skis, on snowshoes or on foot.

In this context, the issue of innovation in mountain tourism is not limited to providing resorts with a new way of engineering entertainment but also involves rethinking the role of skiers and visitors in the on-site experience that they have, reconsidering what place culture should have compared with amenities, and beyond that restoring the meaning of recreational practices with a view to creative spontaneity and increased autonomy. At the same time one must keep in mind that a tourism destination cannot be reduced to its geographical (landscape, climate) infrastructural (accommodation, ski lifts, slopes) and organisational and functional qualities (hospitality services, ski schools). It is also shaped by history, epics and myths, by its sense of belonging to a particular area, by the interplay of cooperation and tension that involves inhabitants, professionals and visitors. It relies on an "atmosphere" which gives it an identity. It is in this sense that the cultural and territorial model of tourism has a strength based on the notion of heritage, structural substance, openness and a functional flexibility which give it a number of advantages over the tourist industrial model. One of the most interesting aspects is that this viewpoint is more able to drag the mountain culture out of the insular, or even extraterritorial, logic in which winter sports resorts tend to shut themselves in: interaction between recreational practices within the resort and outside the resort, "bridges" between activities and operators, seasonal complementarities, relationships between winter sports resorts, valleys and villages, the ability to accommodate a permanent population, the capacity for economic diversification etc. It is then not so much a standard as an anti-model that is created, to the extent that it is the peculiarities of each destination that become the centre of the relationship with its visitors.

G. ANNEXES

G.1 INDICATORS OF SUSTAINABLE TOURISM FOR ALPINE DESTINATIONS

G.1.1 MEASURABILITY OF SUSTAINABLE TOURISM IN THE ALPS

This chapter deals with the measurability of sustainable tourism, particularly with indicators and their implementation in the field. The chapter is a special focus in the frame of the cooperation between EEA and the Alpine Convention for the drafting of the 4th Report on the state of the Alps (RSA 4): "Sustainable tourism in the Alps" (Universitat Autònoma de Barcelona, April 2012).

Indicators of sustainable tourism are tools that are proved to be useful for the planning and management of sustainable tourism as well as the measurement of the degree of the sustainability of tourism. Without indicators it is not possible to know whether tourism in a specific destination is sustainable or not. In this way, they measure the progress towards the sustainability of a tourism destination (UNWTO, 2004; UAB, 2010).

During the last years several attempts to create a system of indicators of sustainable tourism have emerged from different institutions or tourism destinations. However, there is still not a common agreement on which the best system is and which are the key indicators for all type of destinations, or specific destinations like mountain areas. Nevertheless, at European level an initiative was carried out in 2009 by the European Commission for the creation of a set of indicators for sustainable management at tourism destination level, with the participation of the group of experts "Tourism Sustainability Group" (TSG) and the NECSTouR (Network of European Competitive and Sustainable Tourism Regions). The outcome of this task is a list of 20 core indicators, each of them split in several measurements (or specific indicators), that should be a good way to assess the sustainability of tourism destinations, especially at the local/regional level (as many measurements require very specific enterprises/tourists/residents/employees surveys).

Considering this "Core indicators for sustainable tourism destinations" list (Universitat Autònoma de Barcelona, 2011, updated version) a process to identify a set of mountain specific indicators for sustainable tourism has been conducted (Figure 54). Three Alpine EDEN destinations (European Destinations of Excellence) have been involved: Pielachtal,

in Austria; Solčavsko and Soča Valley, in Slovenia. The method of evaluation for the indicators consisted of asking the destination representatives to rate each measurement in the list of indicators of reference on a scale from 1 to 5. They were asked to give a 5 to those measurements that they considered most relevant in the field of management and evaluation of sustainability in their destination as an example of an Alpine destination, and to give a lower rating to the other measurements (for example, 1 would mean not relevant). In this way, by making a sum of the three answers for each measurement, it was possible to create a ranking where the measurements with higher values (a total of 14) have emerged and appear as "key indicators" for those Alpine local destinations (see Figure 54 with the data of those destinations).

This is only an example on how local Alpine tourism destinations can implement indicators. However, there are many more possible indicators and measurements that could be also taken into account if they are considered appropriate. They include aspects such as water management, mobility issues, climate change etc. that are also covered by the TSG/NECSTouR mentioned list. One example of specific indicator for mountain areas could be the presence of "quiet areas" (as they are described in the Tourism Protocol of the Alpine Convention) in each destination or to give more relevance to the environmental aspects.

G.1.2 MODELLING MOUNTAIN TOURISM DESTINATION DEVELOPMENT WITH FOCUS ON INNOVATIVENESS

The study "Modelling mountain tourism destination development with focus on innovativeness" (Kuščer, 2012) focuses on innovativeness, tourism environments and indicators of development in mountain tourism destinations. The rapidly changing business environment is forcing destinations to innovate in order to remain competitive. Based on the literature review, innovativeness elements, elements in tourism environments and indicators of mountain destination development were identified. These elements were tested for their importance and grouped into factors based on survey responses from about 200 tourism researchers and stakeholders in mountain destinations in the Alps. Based on the results of factor analyses, MDIM was developed (Figure 55). It has been established that the effect of tourism environments on mountain destination development is partially mediated by mountain destination innovativeness. Identified factors and corresponding indicators can prove

useful for mountain destination managers and other stakeholders, since they can help destinations to identify

areas in which they excel and areas they need to improve in order to increase the destination's development.

Indicator	Specific measurement	Solčavsko	Soča Valley	Pielachtal
Tourism Volume and Value	Relative contribution of tourism to the destination's economy (percentage of total GVA)	nd	nd	nd
Customer Satisfaction	Relative contribution of tourism to the destination's economy (percentage of total GVA)	89%	70%	90%
	Percentage of repeat/return customers (within 5 years)	70% (est.)	50% (est.)	40% (est.)
Community/Social Impact	Percentage of local residents directly or indirectly benefiting from tourism	60% (est.)	nd	5% (est.)
Quantity and Quality of Employment	Percentage of employees in tourism who indicate they are satisfied with their jobs	nd	nd	nd
	Percentage of tourism enterprises where the employees receive any training	54%	nd	50-60%
Reducing transport impact	Average length of stay of tourists (nights)	2.4	2.6	2.8
Sustainable tourism management practices in tourism enterprises	Percentage of tourism enterprises/establishments in the destination with externally verified certification/labelling for environmental/sustainability and/or CSR measures	10%	2%	36%
Energy Usage	Per capita consumption of energy from all sources (overall and by tourist sector – per person per day)	nd	nd	nd
Landscape and Biodiversity Protection	Percentage of destination (geographical area in km ²) that is designated for protection	80%	51.5%	0%
Inclusive Management Practices	Percentage of official tourism information with a specific section about sustainability issues	30% (est.)	50% (est.)	10% (est.)
Tourism Supply Chain	Percentage of local services and goods sourced locally in tourism enterprises	60%	nd	80%
Protecting and enhancing local cultural identity and assets	Percentage of residents who believe that tourism is: a. Damaging, b. Helps maintain, c. Helps improve the distinctiveness and local identity, culture and heritage of the destination	a. b. c.	nd	nd
	Percentage of events that are based on traditional culture and local assets	90%	25%	>90%

Figure 54: Example of key indicators of sustainable tourism based on three Alpine destinations (Universitat Autònoma de Barcelona, 2012)

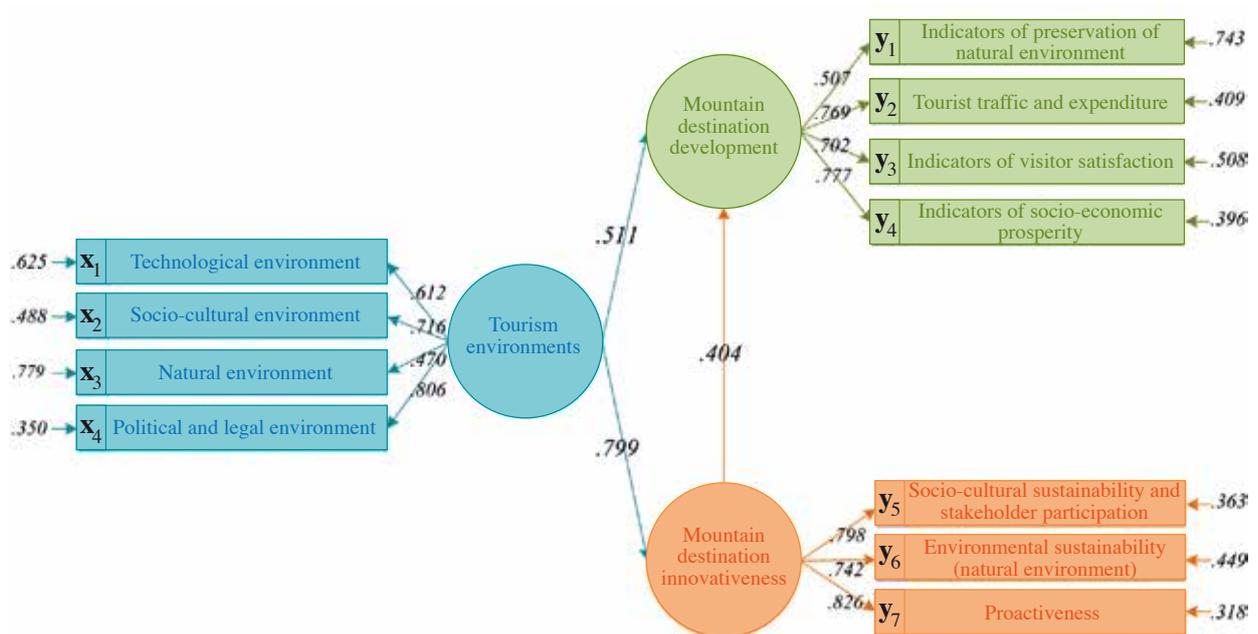


Figure 55: Mountain destination innovativeness model (MDIM), Source: Kuščer, 2012.

G.2. GLOSSARY

The **Alpine Convention** is a multilateral framework treaty signed in 1991 by the eight states of the Alps as well as the European Union. Its main objectives are the sustainable development of the Alpine territory and the safeguarding of the interests of the people living within it, embracing environmental, social and economic dimensions and enhancing the quality of life in the Alps in the broadest sense. For RSA 4, the experts have agreed on the following definitions:

- **Adaptation:** adjustment of natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation (IPCC, 2001).
- **Added value:** in trading is the difference between the price at which the product is bought and the selling price of the final product. In case of services is the difference between the price that the service is sold at and the cost of providing this particular service. Added value in services sector or in the field of tourism is the value that is additional to the pure revenue. It could be material or non material (in the sense of added value for the landscape attraction, nature protection etc.).
- **Alpine area:** defined as the area demarcated by the perimeter of the Alpine Convention.
- **“Cold beds” or “Empty beds”:** expressions in tourism referring to empty accommodation capacities in tourist destinations. It could be the consequence of mismanagement or bad season conditions (no snow, bad weather, extreme events). “Cold beds” could also refer to unoccupied homes in Alpine areas empty for most of the year.
- **Corporate Social Responsibility (CSR):** concept whereby companies integrate social and environmental concerns into their business operations and in their interaction with their stakeholders (employees, customers, shareholders, investors, local communities, government) on a voluntary basis. CSR is closely linked with the principles of sustainability, and is seen as an instrument to implement those principles.
- **Day-visitor:** “Day visitors” are travellers or tourists who do not stay overnight in the place visited. Day trips of excursionists to the Alps are not considered tourists. There are of course interconnections between both aspects. Highly attractive tourist areas with good infrastructures are also used by the local and regional population causing often high pressure due to day trips.

- **Eco-labelling:** labelling of products and services that are in accordance with specified eco standards; they could be local, national or international.
- **Labelling of local products:** allows to get acquainted with the origin of products. Agriculture within the Alpine area produces many unique, authentic, healthy and high-quality products, so they can be recognized as such also through their appropriate labelling.
- **Mitigation:** the UN defines mitigation in the context of climate change, as a human intervention to reduce the sources or enhance the sinks of greenhouse gases.
- **Para-hotellerie:** comprises all accommodation types which mismatch the "hotel" definition. Typical examples are holiday homes and apartments, private rooms, Alpine huts, youth hostels or camping sites. The definition of para-hotellerie is however slightly different in each Alpine country.
- **Quality management in tourism:** ensures high quality of touristic services and enables to find ways for improvements. It also ensures satisfaction of tourists and their loyalty.
- **Seasonality of tourism:** means that tourism is not intensive in the same way throughout the year. Seasonality means temporary fluctuations in the volume of tourism activities e.g. tourist arrivals, because of external factors such as weather conditions, snow coverage, participation etc. It affects the income of local population, stability of employment (part time working contracts), workers external of the country predominance, overuse of facilities in peak periods etc.
- **Second homes:** may include two types of accommodation. Second homes in collective touristic accommodations (in most of the cases, but they may be individual) which are occupied, or rented, or are meant to be rented and the individual second homes which are in most cases familial property, holiday or week-end residences for urban people, and which are not especially destined to be rented. In this report, the first type is taken into consideration rather than the second one.
- **Tourism carrying capacity:** approach for managing visitors in touristic areas. WTO defines tourism carrying capacity as "The maximum number of people that may visit a tourist destination at the same time, without causing physical destruction of these domains". Middleton & Hawkins (1998) define it as "the level of human activity an area can accommodate without the area deteriorating, the resident community being adversely affected or the quality of visitors experience declining".
- **Tourist destination:** agglomeration of municipalities, towns or it is an entire region, recognised and advertised under the same, common name in order to attract tourists. It is an area that is dependent to a significant extent on the revenues accruing from tourism. Usually the destination owns a common touristic and non-touristic infrastructure. Single tourism offers are connected by synergies.
- **Tourist destination management:** management of a tourist destination as concerns common spatial planning, promotion on the market, common public transports systems, tourist info points, cooperation and collaboration with local industry, involvement of local authorities etc., it manages the resources of tourism offer of the destination.
- **Urban tourism:** set of tourist resources or activities located in towns and cities and offered to visitors from elsewhere (European Commission, 2000, p.21).
- **Visitor:** "A visitor is a traveller taking a trip to a main destination outside his/her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited. A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor), if his/her trip includes an overnight stay, or as a same-day visitor (or excursionist) otherwise." By this definition tourism is connected to all kind of travelling without a differentiation of motivation and duration but with at least one overnight stay.
- **Vulnerability:** the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes (IPCC, 2007). In the context of Alpine tourism vulnerability to climate change can be perceived as a function of three components. First, it is a function of exposure to direct (e.g. changes in temperature and rainfall dynamics) and indirect (e.g. increased risk of natural hazards and snow pack reduction) impacts. Secondly, it is a function of the sensitivity of the region to these impacts. This sensitivity could be environmental (e.g. land use), human (e.g. social structure), and/or economic (e.g. income per capita). Finally, it depends on its (biophysical, social, technological and economic) adaptive capacity (Matasci & Altamirano-Cabrera in: Weiermair et al., 2011).

G.3 THE ALPINE AREA, A TERRITORY FOR SUSTAINABLE TOURISM

The experts of the Contracting Parties selected examples according to certain criteria, e.g. transferability/repeatability, reproducibility, exchanges, sharing and ways of reproduction, innovation and, last but not least, sustainability.

The good practices selected support the implementation of the objectives and measures of the Tourism Protocol of the Alpine Convention:

- strengthening economic attractiveness of close-to-nature tourism;
- prevention and adjustment of environmental damages caused by touristic activities and infrastructures (soft mobility projects, renewable energy use, efficient energy use, climate neutral holidays or awareness raising for sustainable tourism behaviour);
- taking the interests of both the local population and tourists into account.

They are of course not exhaustive and are not the product of a judgment on their real value, but the presentation of some of them can encourage stakeholders to be inspired by them.

The list is available on the Alpine Convention's website under: goodpractices.rsa4.alpconv.org

G.4. REFERENCES

This list of references is not exhaustive.

Abegg, B. (2011): Tourism in climate change. CIPRA Compact 1/2011. Retrieved from: www.cipra.org/en/alpmedia/publications/4606 (Accessed on 13 February 2012).

AdaptAlp (2011): ADVANCE. Common Strategic Paper. Retrieved from: www.adaptalp.org (Accessed on 13 February 2012).

Allemand, S. (2006): Des transports pour un tourisme durable. Presses polytechniques et universitaires romandes.

ALPARC (Ed.) (2000): Les dossiers du Réseau Alpin N°2. Le tourisme dans les espaces protégés alpins Recensement de l'infrastructure et de la fréquentation touristiques afin d'évaluer les retombées sur l'économie régionale.

ALPARC (Ed.) (2001): Les dossiers du réseau Alpin n°4. Tourisme et culture dans les espaces protégés alpins – Projets et expériences.

ALPARC (Ed.) (2008): Züge, Shuttlebusse und Kutschen ersetzen den PKW. Die Alpen Schutzgebiete, Förderer der sanften Mobilität. Alparc.

Alpine Convention (Ed.) (2008): Public transport accessibility of Alpine tourist resorts from major European origin regions and cities. Synthesis Report. Report for the Alpine Convention – Transport Group, Subgroup "Sustainable Mobility". Paris, Vienna: Alpine Convention.

Alpine Pearls (n.d.): Available on: www.alpine-pearls.com (Accessed on 7 October 2011).

Angelini, P., Cetara, L. (2007): Data and Elaboration on the Italian Alpine and Pre-Alpine Ski Stations, Ski Facilities and Artificial Snowmaking. Retrieved from: www.convenzionedellealpi.it/NR/rdonlyres/81850CB9-619B-4D55-AF3D-D98513E93318/20008/OECD_Italy_Winter_Tourism_Annex_2008.pdf (Accessed on 13 December 2012).

APAT – Bosello, F., Marazzi, L., Nunes, A.L.D.P. (2007): Le Alpi italiane e il cambiamento climatico, Elementi di vulnerabilità ambientale ed economica e possibili strategie di adattamento. Centro Euro Mediterraneo per i Cambiamenti Climatici (CMCC) & Agenzia per la Protezione dell'ambiente e per i Servizi Tecnici.

ARE – Office fédéral du développement territorial (Ed.) (2006): Le tourisme dans l'espace alpin. Chances et risques d'un secteur économique important suisse en mutation. Bern: Office fédéral du développement territorial.

- ARE – Swiss Federal Office for Spatial Development (2011): *The Alps – From Rio 1992 to 2012 and beyond, 20 years of Sustainable Mountain Development, What have we learnt and where should we go?* Bern: Swiss Federal Office for Spatial Development.
- ARE – Office fédéral du développement territorial (Ed.) (2012): *Tourisme et développement durable. Bonnes pratiques et pistes d'action.* Bern : office fédéral du développement territorial.
- Atout France (Ed.) (2011): *Tourisme et développement durable – De la connaissance des marchés à l'action marketing.* Paris: Atout France.
- Bätzing, W. (2005): *Le Alpi – Una regione unica al centro dell'Europa*, 216-219, 351-371. Torino: Bollati Boringhieri.
- BAKBASEL (2011): *Benchmarking du tourisme – Le secteur suisse du tourisme en comparaison internationale. Rapport de synthèse du « Programme de benchmarking international du tourisme suisse : mise à jour 2010-2011 ».* Bern : Secrétariat d'Etat à l'économie (SECO).
- Balbi, S., Giupponi, C., Bonzanigo, L. (Eds.) (2011): *Climate change and its impacts on tourism in the Alps – The pilot area of Auronzo di Cadore (Belluno).* Lecce: Euro-Mediterranean Centre for Climate Change.
- Balbi, S., Giupponi, C., Perez, P., Alberti, M. (2012): *An Agent-Based Integrated Assessment of Winter Tourism Development in the European Alpine Region.* Submitted to *Environmental Modelling & Software Journal*.
- Baum, T., Lockstone, L. (2007): *Volunteers and mega sporting events, developing a research framework.* *International Journal of Event Management Research* 3 (1), 29-41.
- Beech, J. Chadwick, S. (2004): *The Business of Sports Management.* Harlow: Pearson Education Limited.
- Beniston, M. (2005): *Mountains climates and climatic change, an overview of process focusing on the European Alps.* *Pure Applied Geophysics* 162, 1587-1606.
- Beniston, M. (2006): *Mountain weather and climate – A general overview and a focus on climatic change in the Alps.* *Hydrobiologia* 562, 3-16.
- Beniston, M., Keller, F., Koffi, B., Goyette, S. (2003): *Estimates of snow accumulation and volume in the Swiss Alps under changing climatic conditions.* *Theoretical and applied climatology* 76, 125-140.
- Berwert, A., Rütter, H., Müller, H. (2002): *Volkswirtschaftliche Bedeutung des Tourismus im Kanton Wallis.* *disP – The Planning Review* 23 (151), 4-12.
- BfN – Bundesamt für Naturschutz (Ed.) (2009): *Regionalökonomische Effekte des Tourismus in deutschen Nationalparks.* *Naturschutz und Biologische Vielfalt* Heft 76. Münster: Landwirtschaftsverlag.
- BfN – Bundesamt für Naturschutz (Ed.) (2005): *FuE-Vorhaben: Ökonomische Effekte von Tourismus in Großschutzgebieten.* Available on: www.bfn.de/0323_tourismus-oekonomie.html (Accessed on 13 December 2012).
- BfN – Bundesamt für Naturschutz (Ed.) (n.d.): *FuE-Vorhaben (2010-2013), Wirtschaftsfaktor Großschutzgebiete III, Regionalökonomische Effekte des Tourismus in deutschen Biosphärenreservaten.*
- Bieger, T., Laesser, C. (2008): *Les formes hybrides d'hébergement : besoins du marché et tendances internationales.* *La Vie économique* 5, 46-49.
- Bieger, T., Müller, H., Elsasser, H., OK FIS Alpine Ski WM Engadin 2003 (2000): *Nachhaltigkeit der Fis Alpine Ski WM 2003 St. Moritz – Pontresina, Engadin. Eine Sport-Grossveranstaltung im Spannungsfeld zwischen wirtschaftlichen, ökologischen und gesellschaftlichen Ansprüchen.* Retrieved from: www.alexandria.unisg.ch/publications/14106/ (Accessed on 12 March 2012).
- BMU – Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (2007): *Climate change in the alps, Facts - impacts - adaptation.* Berlin: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.
- Bourdeau, P. (Ed.) (2007): *Les sports d'hiver en mutation : Crise ou revolution géoculturelle?* Paris : Lavoisier.
- Bourdeau, P. (2009): *Mountain tourism in a climate of change.* In: *Jandl, R., Borsdorf, A., van Miegroet, H., Lackner, R., Psenner, R. (Eds.): Alpine space – man & environment 7, Global Change and Sustainable Development in Mountain Regions.* Innsbruck: Innsbruck University Press.
- Bundesministerium für Wirtschaft und Technologie (2009): *Auswirkungen des demographischen Wandels auf den Tourismus und Schlussfolgerungen für die Tourismuspolitik.* Berlin: Bundesministerium für Wirtschaft und Technologie.

- Bürki, R., Abegg, B., Elsasser, H. (2006): Cambiamento climatico e sport invernali, minacce economiche e ambientali. Study presented at 5th World Conference on Sport and Environment, 2-3 December 2003, Torino. In: *WWF Italia (Ed.): Alpi e turismo, trovare il punto di equilibrio. Collana Ecoregione Alpi n°1. Milano: WWF Italia.*
- Bürki, R., Abegg, B., Elsasser, H. (2007): Climate change and tourism in the Alpine Region of Switzerland. In: *Amelung, B., Blazejczyk, K., Matzarakis, A. (Eds.): Climate change and tourism: assessment and coping strategies, 165-172. Maastricht – Warsaw – Freiburg. Retrieved from: www.undp.hr/upload/file/207/103939/FILENAME/Tourism_and_climate_change_Assessment_and_Coping_Strategies.pdf (Accessed on 13 February 2012).*
- Castellari, S. (2008): Climate change, impacts and adaptation strategies in the Alpine Space: some results from the INTERREG III B project ClimChAlp. Conference Presentation – Mountains as Early Indicators of Climate Change, Padova, Italy. In: *H. Gallée, H., Chaix, C. (Eds.): Climate changes over the Alps and their impact on Alpine tourism. France: Alpine Space project "ClimAlpTour". Retrieved from: www.institut-montagne.org/ori-oai-search/notice.html?id=institut-montagne-ori-wf-1-77971&format=dc_id&resultBackUrl= (Accessed on 13 February 2012).*
- Chappelet, J.L., Junod, T. (2006): A Tale of 3 Olympic Cities: What can Turin learn from the Olympic legacy of other Alpine cities? In: *Torres, D. (Ed.): Major Sport Events as Opportunity for Development, Proceedings of the Valencia Summit 2006. Valencia: Instituto Nóos, 83-89.*
- CIPRA (2003): La mobilità de loisirs. Rapport de synthèse. Schaan: CIPRA International. Retrieved from: www.cipra.org/fr/alpmedia/publications/278 (Accessed on 13 December 2012).
- CIPRA (2003): Alpmedia – Aufrüstung im Alpenen Wintersport. Ein Hintergrundbericht. Schaan: CIPRA International. Retrieved from: www.cipra.org/de/alpmedia/dossiers/9 (Accessed on 10 October 2011).
- CIPRA (2004): Künstliche Beschneigung im Alpenraum. Ein Hintergrundbericht. www.cipra.org/pdfs/454_de/at_download/file (Accessed on 13 Februar 2012).
- CIPRA (2007): Nachhaltiger Tourismus hat Zukunft – Ab in die Alpen! CIPRAINFORM Nr. 83. Schaan: CIPRA International. Retrieved from: www.cipra.org/de/alpmedia/publikationen/3015 (Accessed on 13 December 2012).
- CIPRA (2008): Alps know how. Retrieved from: alpsknowhow.cipra.org/ (Accessed on 5 October 2011).
- CIPRA (2008): Défi résidences secondaires : Beaucoup d'espace, un usage limité. Schaan : CIPRA International. Retrieved from: www.cipra.org/fr/alpmedia/publications/3334 (Accessed on 13 December 2012).
- CIPRA (2010): Les transports face au changement climatique. Compact 01/2010. Schaan: CIPRA International. Retrieved from: www.cipra.org/fr/alpmedia/dossiers/18 (Accessed on 13 December 2012).
- CIPRA (2010): Energy self-sufficient regions. Compact 03/2010. Schaan: CIPRA International. Retrieved from: www.cipra.org/en/alpmedia/dossiers/25 (Accessed on 13 February 2012).
- CIPRA (2011): Le tourisme face au changement climatique. Compact 01/2011. Schaan: CIPRA International. Retrieved from: www.cipra.org/fr/alpmedia/dossiers/20 (Accessed on 13 December 2012).
- CISSET (2011): Il turismo montano in Italia. Modelli, strategie e performance. Osservatorio Nazionale del Turismo (ONT).
- ClimAlpTour Project (2011): Available on: www.climalptour.eu (Accessed on 13 February 2012).
- ClimChAlp Project (2008): Extended Scientific Final Report, ClimChAlp project – the Climate Change assessment Report. Retrieved from: www.climchalp.org/ (Accessed on 13 February 2012).
- ClimChAlp Project (2008): Work Package 7, Impacts of Climate Change on Spatial Development and Economy, Synthesis & Model Region Studies. Munich: The ClimChAlp partnership.
- CLIPS – Climate Change Adaptation by Spatial Planning in the Alpine Space (2009): Report of Working Package 4 – Vulnerability Assessment. Task 4.3.3.3 Processing of regional climate model data & providing climate projections for MRs (CLM and/or REMO). Climate change scenarios. The Alps. Retrieved from: www.clisp.eu/content/sites/default/files/The_Alps_v2.pdf (Accessed on 13 February 2012).
- CLIPS – Climate Change Adaptation by Spatial Planning in the Alpine Space (2011): WP4 Vulnerability Assessment. Synthesis Final Report. Retrieved from: www.clisp.eu/content/sites/default/files/CLISP_WP4%20Synthesis%20Report_final_0.pdf (Accessed on 13 February 2012).

- Clivaz, C., Nahrath, S. (2010): Le retour de la question foncière dans l'aménagement des stations touristiques Alpines en Suisse. *Revue de géographie Alpine* 98 (2).
- Conseil fédéral Suisse (Ed.) (2010): Stratégie de croissance pour la place touristique Suisse. Bern: Secrétariat d'Etat à l'économie – SECO.
- Conseil general de l'Environnement et du Developpement durable (Ed.) Badre, M., Prime, J.L., Ribiere, G. (2009): Neige de culture, Etat des lieux et impacts environnementaux – Note socio-économique. La Defense cedex: Conseil general de l'Environnement et du Developpement durable, 18.
- Cornelissen, S., Bob, U., Swart, K. (2011): Towards redefining the concept of legacy in relation to sport mega-events, Insights from the 2010 FIFA World Cup. *Development Southern Africa* 28 (3), 307–318.
- Credit Suisse (Ed.) (2011): Swiss Issues Branches. Le tourisme en Suisse – Stations de ski en concurrence. Zurich: Credit Suisse Group AG.
- Davézies, L. (2008): La République et ses territoires, La circulation invisible des richesses. Paris : Le Seuil.
- De Jong, C. (2007): Artificial snow drains mountain resources. *Environmental Research Web*. Available on: environmentalresearchweb.org/cws/article/opinion/30703 (Accessed on 8 August 2007).
- Debarbieux, B. (2001): Les montagnes : représentations et constructions culturelles. In : Veyret, Y. (Ed.) : *Les montagnes: discours et enjeux géographiques*. Paris: SEDES.
- De Rossi, A., Ferrero, G. (2000): Il secolo breve dell'architettura alpina. Turin: L'Alpe 1, 76–82.
- Dodouras, S., James, P. (2004): Examining the sustainability impacts of mega-sports events, Fuzzy mapping as a new integrated appraisal system. On 4th International Postgraduate Research Conference in the Built and Human Environment, 29 March – 2 April 2004, Salford. Retrieved from: usir.salford.ac.uk/9511/1/Dodouras_buhu_04.pdf (Accessed on 26 March 2012).
- Dwyer, L., Forsyth, P., Spurr, R. (2006): Assessing the Economic Impacts of Events – A Computable General Equilibrium Approach. *Journal of Travel Research* 45 (1), 59–66.
- Durrer Eggerschwiler, B., Egli, H., Peter, C. (2010): Accompanying study BESTander matt, Sociocultural and socioeconomic consequences of the tourism resort Andermatt. Final report of the first substudy. Lucerne: Lucerne University of Applied Sciences and Arts. Retrieved from: www.bestander matt.ch/fileadmin/user_upload/pdf/Schlussbericht_110520.pdf (Accessed on 12 December 2012).
- EEA – European Environment Agency (2005): Vulnerability and adaptation to climate change in Europe. Technical report No 7/2005. Copenhagen: European Environment Agency. Retrieved from: www.eea.europa.eu/publications/technical_report_2005_1207_144937 (Accessed on 12 December 2012).
- EEA – European Environment Agency, JRC European Commission, WHO World Health Organization (2008): Impacts of Europe's changing climate – 2008 indicator-based assessment. EEA Report No 4/2008, JRC Reference Report No JRC47756. Copenhagen: European Environment Agency. Retrieved from: www.eea.europa.eu/publications/eea_report_2008_4 (Accessed on 12 December 2012).
- Elsasser, H., Bürki, R. (2002): Climate change as a threat to tourism in the Alps. *Climate Research* 20, 253–257.
- Elsasser H., Messerli, P. (2001): The Vulnerability of the Snow Industry in the Swiss Alps. *Mountain Research and Development* 21 (4), 335-339.
- Etat du Valais (Ed.) (2011) : Rapport du Conseil d'Etat valaisan sur l'Agenda 21 cantonal, Etat des lieux des 16 engagements en matière de développement durable. Sion: Etat du Valais.
- Ensembles project (n.d.): Available on: www.ensembles-eu.org (Accessed on 13 February 2012).
- Europarc Federation (n.d.): Available on: www.europarc.org/home/ (Accessed on 7 October 2011).
- European Commission (2000): Toward urban tourism-integrated quality management (iqm) of tourist destination. Luxembourg: EU.
- European Commission (2007): Action for more sustainable European tourism, report of the Tourism Sustainability Group. Retrieved from: ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=237 (Accessed on 12 December 2012).

- EUROSTAT (2008): In the spotlight, Demographic change – challenge or opportunity? Eurostat: Europe in figures – Eurostat yearbook 2008. Retrieved from: epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-CD-07-001-SPOT/EN/KS-CD-07-001-SPOT-EN.PDF (Accessed on 12 December 2012).
- FST – Fédération Suisse du Tourisme (2011): Available on: www.swisstourfed.ch/index.cfm?parents_id=959 (Accessed on 12. December 2012).
- Fourie, J., Santana-Gallego, M. (2011): The impact of mega-sport events on tourist arrivals. *Tourism Management* 32 (6), 1364–1370.
- Greenwood, D.J. (1977): Culture by the pound – An anthropological perspective on tourism as cultural commoditization. In: *Smith, V.L. (Ed.): Hosts and guests, the anthropology of tourism. Pennsylvania: University of Pennsylvania Press.*
- Gupponi, C., Balbi, S., Bonzanigo, L. (2012): Local development and climate change adaptation in the Alps, a case study on sustainable winter tourism in the Dolomites. Submitted to *Ecological Economics*. First review stage.
- Hauser, A. (2009): What is Mass Tourism? An attempt at defining it. *Destination World News* 31. Available on: www.destinationworld.info/newsletter/feature45.html (Accessed on 12. December 2012).
- Héliou, C. (1999): Les stations de sports d’hiver de moyenne altitude : approche géographique de la dynamique du tourisme dans les Alpes françaises, thèse de doctorat de géographie, Université Paris VII, Paris.
- Historical instrumental climatological surface time series of the Greater Alpine Region – HISTALP (2009): Available on: www.zamg.ac.at/histalp (Accessed on 13 February 2012).
- Hohenwallner, D. (n.d.): Water Management in a Changing Environment, Strategies against Water Scarcity in the Alps, Project Outcomes and Recommendations. Chambery: University of Savoie. Retrieved from: www.sbg.ac.at/zgis/alpwaterscarce/03_Work/WP03_InformationAndPublicity/3.2_AWS_Website_Documents/Recommendations/WaterManagementHandbook.pdf (Accessed on 13 February 2012).
- Inglis, J., Whitelaw, P., Pearlman, M. (2005): Best practice in strategic park management towards an integrated park management model. Gold Coast MC QLD: CRC Sustainable Tourism.
- IPCC – Intergovernmental Panel on Climate Change (2001): Third Assessment Report – Climate Change 2001 (TAR). Retrieved from: www.grida.no/publications/other/ipcc_tar
- ISNART – Unioncamere (2011): Osservatorio Nazionale del Turismo (ONT), Rapporto sul Turismo 2011. Retrieved from: www.ontit.it/opencms/export/sites/default/ont/it/documenti/files/ONT_2012-07-01_02836.pdf
- Jaakson, R. (1986): “Second-home domestic tourism”. *Annals of Tourism Research*, 13/3 (1986), 367-391.
- Jacob, D. (2007): An inter-comparison of regional climate models for Europe: model performance in present-day climate. *Climatic Change* 81 (1), 31-52.
- Joint Technical Secretariat European Territorial Cooperation and Alpine Space Programme (2011): Coping with Demographic Change. Shaping Policies. Forum Report. München: Joint Technical Secretariat European Territorial Cooperation and Alpine Space Programme Retrieved from: www.Alpine-space.eu/fileadmin/media/Thematic_Workshops/DemographicChange/Demographic_Change_Forum_Report.pdf (Accessed on 12 December 2012).
- Jost, C. (1951): Der Einfluss des Fremdenverkehrs auf Wirtschaft und Bevölkerung in der Landschaft Davos. Bern: Stämpfli, 160-172.
- Kappler, A., Forster, S., Siegrist, D. (2009): Wertschöpfung in Naturparken durch Tourismus. Luzern: Kappler.
- Keller, F. (n.d.): Klimawandel und Tourismus. VISUMtourism. Retrieved from: www.visumtourism.ch/fachartikel_klima.pdf (Accessed on 7 October 2011).
- Kellerer-Pirklbauer, A., Lieb, G.K., Schoeneich, P., Deline, P., Pogliotti, P. (2011): Thermal and geomorphic permafrost response to present and future climate change in the European Alps. Grenoble: ADRA – Association pour la diffusion de la recherche Alpine. Retrieved from: www.permanet-Alpinespace.eu/archive/pdf/WP5_3_final_report.pdf (Accessed on 13 February 2012).
- Ketterer, L., Siegrist, D. (2009): Touristische Potenziale der Österreichischen Naturparke. Rapperswil: Schriftenreihe des Instituts für Landschaft und Freiraum. Retrieved from: www.naturparke.at/downloads/studie_touristische_potenziale_der_oesterr_naturparke.pdf (Accessed on 13 December 2012).
- KLIWA – Klimaveränderung und Konsequenzen für die Wasserwirtschaft (n.d.): Available on: www.kliwa.de (Accessed on 13 February 2012).

- Koenighofer, S. (2007): Konflikte in und um den Naturpark Dobratsch. Institute of Geography and Regional Research. Retrieved from: wwwu.edu.uni-klu.ac.at/s1koenig/streitross/material/semarbeit/Konflikte_in_und_um_den_Naturpark_Dobratsch.pdf (Accessed on 13 December 2012).
- Küpfer, I. (2000): Die regionalwirtschaftliche Bedeutung des Nationalparktourismus – untersucht am Beispiel des Schweizerischen Nationalparks. Zürich: Geographisches Institut Universität Zürich.
- Kuščer, K. (2012): Modelling mountain tourism destination development with focus on innovativeness. Slovenia.
- Legambiente (2009): Carovana delle Alpi – Dossier 2009. Cemento d’alta quota, seconde case, cemento vs. turismo di qualità. Retrieved from: lombardia.legambiente.it/sites/default/files/docs/dossier_seconde_case_alpi_06-08.pdf
- Loretan, H. (2000): Prendetevi una vacanza dal turismo! Aspetti socio economici e culturali del turismo nelle Alpi. In: *CIPRA (Ed.): Turismo nelle Alpi. Turin: CIPRA International.*
- Macchiavelli, A. (2009): Alpine tourism – development contradictions and conditions for innovation. *Journal of Alpine Research* 97 (1). Retrieved from: rga.revues.org/index843.html (Accessed on 13 February 2012).
- MacFarlane, R. (2005): Come le montagne conquistarono gli uomini – Storia di una passione. Milano: Mondadori.
- MANFRED Project (n.d.): Available on: www.manfredproject.eu (Accessed on 13 February 2012).
- Masterman, G. (2004): Strategic Sports Event Management – An International Approach. Oxford: Elsevier Butterworth-Heinemann.
- Middelton, V.C., Hawkins, R. (1998): Sustainable Tourism: A Marketing Perspective. Oxford: Butterworth-Heinemann.
- Mihalik, B.J., Simonetta, L. (1999): A Midterm Assessment of the Host Population’s Perceptions of the 1996 Summer Olympics – Support, Attendance, Benefits, and Liabilities. *Journal of Travel Research* 37(3).
- Mihalič, T., Kaspar, C. (1996): Umweltökonomie im Tourismus. Bern: Paul Haupt.
- Mihalič, T. (2006): Nature-based products, ecotourism and adventure tourism. In: *Buhalis, D., Costa, C. (Eds.): Tourism business frontiers – consumers, products and industry. Oxford: Elsevier Butterworth-Heinemann, 111-117.*
- Mihalič, T. (2011): Tourism and its environments: ecological, economic and political sustainability issues. Ljubljana: University Ljubljana, Faculty of Economics.
- Mihalič, T., Žabkar, V., Knežević Cvelbar, L. (2012): A hotel sustainability business model, evidence from Slovenia. *Journal of Sustainable Tourism* 10 (5), 701–719.
- Moss, L.A.G., Glorioso, R.S., Krause, A. (Eds.) (2009): Understanding & Managing Amenity-Led Migration in Mountain Regions. The Banff Centre, Banff, Canada.
- Nationalpark Hohe Tauern (n.d.): Available on: www.hohetauern.at/ (Accessed on 7 October 2011).
- ODIT (2008): Le tourisme estival de montagne. France: Odit.
- OECD – Agrawala, S. (Ed.) (2007): Climate change in the European Alps – Adapting Winter Tourism and Natural Hazard Management. Paris: OECD Publishing.
- OECD – Agrawala, S., Fankhauser, S. (2008): Economic Aspects of Adaptation to Climate Change – Costs, Benefits and Policy Instruments. Paris: OECD Publishing.
- OECD (2006): Putting Climate Change Adaptation in the Development Mainstream. OECD Policy brief. Available on: www.oecd.org/dataoecd/57/55/36324726.pdf (Accessed on 13 February 2012).
- ONT (2008): Osservatorio Nazionale del Turismo, Rapporto sul Turismo 2008.
- ONT (2011): Osservatorio Nazionale del Turismo, Rapporto sul Turismo 2011. Retrieved from: www.ont.it/opencms/export/sites/default/ont/it/documenti/files/ONT_2012-07-01_02836.pdf
- OMT, PNUE, OMM (2007): Changement climatique et tourisme. Faire face aux défis mondiaux. Madrid/ Paris/ Genève : OMT, PNUE, OMM.
- Onida, M. (2011) : Nouveau Traité sur le fonctionnement de l’Union européenne, politique du tourisme et protection de l’environnement : une occasion manquée. *Revue du Droit de l’Union européenne* 4, 667–675.
- Onida, M. (2012): Commento all’Articolo 195 – Turismo. In: *Curti G. (Ed.): Codice dell’Unione europea operativo, Simone.*
- Paramount Project (n.d.): Available on: www.paramount-project.eu/ (Accessed on 13 February 2012).

- Peeters, P., Dubois, G. (2010): Tourism travel under climate change mitigation constraints. *Journal of Transport Geography* 18, 447–457.
- Perlik, M. (2006): "The Specifics of Amenity migration in the European Alps". In: Moss, L.A.G. (Ed.): *The Amenity Migrants – Seeking and sustaining Mountains and their Cultures*. CAB International, Santa Fe, 215-231.
- Permanent Secretariat of the Alpine Convention (Ed.) (2007): *Alpine Convention, Report on the State of the Alps – Transport and Mobility in the Alps*. Alpine Signals – Special edition 1, Innsbruck, Bolzano: Permanent Secretariat of the Alpine Convention.
- Permanent Secretariat of the Alpine Convention (Ed.) (2010): *Alpine Convention, Reference Guide*. Alpine Signals 1, 2. Innsbruck, Bolzano: Permanent Secretariat of the Alpine Convention.
- Permanent Secretariat of the Alpine Convention (Ed.) (2011): *Use of motor vehicles in the alps*. Study of the Alpine Convention. Retrieved from: www.alpconv.org/en/publications/alpine/default.html
- Plüss, C. (1999): *Ferienglück in Kinderhänden, Kinderarbeit im Tourismus*. Zürich: Rotpunkt Verlag.
- Preuss, H. (2007): The Conceptualisation and Measurement of Mega Sport Event Legacies. *Journal of Sport & Tourism* 12 (3–4), 207–227.
- Preuss, H. (2011): A method for calculating the crowding-out effect in sport mega-event impact studies, *The 2010 FIFA World Cup*. *Development Southern Africa* 28 (3), 367–385.
- Price, M., Borowski, D., Macleod, C., Rudaz, G., Debarbieux, B. (2011): *ALPS – Rio+20 Report, Sustainable Mountain Development in the Alps, From Rio 1992 to Rio 2012 and beyond*. Bern: Swiss Federal Office for Spatial Development.
- Pro Natura (2012): *Der Massentourismus frisst sich in naturbelassene Berglandschaften*. Basel: Pro Natura Magazin. Retrieved from: www.pronatura.ch/magazin-themendossiers (Accessed on 13 December 2012).
- Provincia Autonoma di Trento (2008): *Progetto clima 2008, Previsioni e conseguenze dei cambiamenti climatici in Trentino*. Trento: Provincia Autonoma di Trento.
- Prudence Project (2011): Available on: prudence.dmi.dk (Accessed on 13 February 2012).
- Regione Autonoma Valle D'Aosta, Società Meteorologica Subalpina (2006): *Cambiamenti Climatici in Valle d'Aosta, opportunità e strategie di risposta*. Bussoleno: Società Meteorologica Subalpina.
- Reiner, K. (2007): *Bergtourismus – Herausforderungen und Entwicklungschancen für eine nachhaltigere Entwicklung*. Retrieved from: oearat.web06.vss.kapper.net/wp-content/uploads/094DBS_Zeitreisen-kap-203-Bergtourismus-Reiner.pdf (Accessed on 7 October 2011).
- Ritchie, J.R.B., Crouch, G.I. (2000): *The competitive destination – A sustainability perspective*. *Tourism Management* 21 (2000).
- Rodriguez, V. (2001): *Tourism as a recruiting post for retirement migration*. *Tourism Geographies* 3(1), 52–63.
- Rolland, V. (2006): *Attractivité des stations de sport d'hiver: Reconquete des clientele et competitivite internationale*. Rapport au Premier Ministre Dominique DE VILLEPIN.
- Rouard. (2011): *Projet Interreg IV France-Suisse : Les Voies De L' Innovation Touristique: « De l'observation à l'incitation et à la formation »*, Rapport de synthese. Observer les processus d'innovations touristiques. Répertoire des profils de compétences des cadres et les formations existantes, Année 1.
- Rupf, R. (n.d.): *Projekt VISIMAN – Interessenskonflikt zwischen Naturschutz und Tourismus, Teilprojektleitung*. Retrieved from: www.visiman.ch/fileadmin/user_upload/customers/visiman/projekt/Interessenskonflikt_Naturschutz_Tourismus.pdf (Accessed on 7 October 2011).
- SAB (2010): *Le tourisme face au changement climatique. Stratégies pour prolonger la saison touristique*.
- Salsa, A. (2007): *Il tramonto delle identità tradizionali. Spaesamento e disagio esistenziale nelle Alpi*. Turin: Priuli & Verlucca.
- Schmied, M., Hochfeld, C., Stahl, H., Roth, R., Armbuster, F., Türk, S., Friedl, C. (2007): *Green Champions in Sport and Environment – Guide to environmentally sound large sporting events*. Federal Ministry for the Environment, Nature Conservation and Nuclear Safety & German Olympic Sports Confederation. Retrieved from: www.oeko.de/oekodoc/598/2007-144-en.pdf (Accessed on 13 December 2012).

- Schmied, S. (2012): Impacts of Sport Mega Events – The case of the Alpine World Ski Championship in Schladming 2013 and a suggestion for evaluating the residents' perception. IMC Krams.
- Schulenkorf, N., Edwards, D. (2009): Social development through sport events, Strategies for sustaining and leveraging event benefits. Kufstein Congress on Sports & Culture, 14-16 May 2009, Kufstein. In: *Fachhochschule Kufstein Tirol Bildungs GmbH (Ed.) (2010): Sustainable Event Management – Lessons Learnt & Prospects. Kufstein: FH Kufstein Tirol Bildungs GmbH.*
- Scott, D., McBoyle, G. (2007): Climate change adaptation in the ski industry – Mitigation and Adaptation Strategies for Global Change 12 (8), 1411–1431.
- SECO – Secrétariat d'Etat à l'économie (Ed.) (2011): Benchmarking du tourisme – Le secteur suisse du tourisme en comparaison internationale. Basel : BAK Basel Economics AG.
- Siegrist, D. (2009): Pärke von nationaler Bedeutung – Touristische Marktanalyse und Erfolgsfaktoren. Rapperswil: ILF Institut für Landschaft und Freiraum – FTL-HSR Forschungsstelle für Freizeit, Tourismus und Landschaft, Hochschule für Technik Rapperswil.
- Siegrist, D., StremLOW, M. (Hrsg.) (2009): Landschaft ErlebnisReisen. Naturnaher Tourismus in Pärken und UNESCO-Gebieten. Zürich: Rotpunktverlag.
- SILMAS Project (n.d.): Available on: www.silmas.eu (Accessed on 13 February 2012).
- Simpson, M.C., Gössling, S., Scott, D., Hall, C.M., Gladin, E. (2008): Climate change adaptation and mitigation in the tourism sector – frameworks, tools and practices. Paris: UNEP, University of Oxford, UNWTO, WMO.
- Solomon, S. (Eds.) (2007): Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press.
- Spilling, O.R. (1998): Beyond Intermezzo? On the Long-Term Industrial Impacts of Mega-Events: The Case of Lillehammer 1994. *Festival Management and Event Tourism* 5 (3), 101–122.
- Steiger, R. (2010): The impact of climate change on ski season length and snowmaking requirements in Tyrol. *Climate Research* 43, 251–262.
- Stock, M. (2004): « L'habiter comme pratique des lieux géographiques ». Retrieved from : espacetemps.net/document1138.html (Accessed on 18 December 2004).
- Streifeneder, T. (2010): Die Agrarstrukturen in den Alpen und ihre Entwicklung unter Berücksichtigung ihrer Bestimmungsgründe. Eine alpenweite Untersuchung anhand von Gemeindedaten. München: Herbert Utz Verlag.
- Suisse Office fédéral de l'environnement, des forêts et du paysage (2004) : Un tourisme durable en forêt de montagne grâce à une gestion forestière durable. Berne : SILVAVA.
- Tasser, E. (2008): Available settlement area. In: *Tappeiner, U., Borsdorf, A., Tasser, E. (Eds.): Alpenatlas/Atlas des Alpes/ Atlante delle Alpi/Atlas Alp/Mapping the Alps. Society – Economy – Environment. Heidelberg: Spektrum, 88-89.*
- Teigland, J. (1999): Mega-events and impacts on tourism, the predictions and realities of the Lillehammer Olympics. *Impact Assessment and Project Appraisal* 17(4), 305–317.
- Tourism Sustainability Group (2007): Action for More Sustainable European Tourism. Report of the Tourism Sustainability Group. Brussels: CEC.
- Traxel, U. (2010): Tourism Resort Andermatt – Study about the economic impacts of the resort, update 2010. Retrieved from: www.urkb.ch/services/tourismusresort-andermatt/studie.html (Accessed on 13 December 2012).
- UAB – Universitat Autònoma de Barcelona (2010): Test to implement tourist indicators in EDEN destinations. Evaluation report. Bellaterra: UAB (unpublished report).
- UNEP – United Nations Environment Programme, WTO – World Trade Organization (2005): Making tourism more sustainable – A guide for policy makers. Paris, Madrid: UNEP & WTO. Retrieved from: www.unep.fr/shared/publications/pdf/DTIx0592xPA-TourismPolicyEN.pdf (Accessed on 13 December 2012).
- UNEP – United Nations Environment Programme (2011). Towards a Green Economy: Pathways to Sustainable Development: Pathways to Sustainable Development and Poverty Eradication. Available at: www.unep.org/greeneconomy/Portals/88/documents/ger/ger_final_dec_2011/Green%20EconomyReport_Final_Dec2011.pdf (Accessed on 13 December 2012).

- UNWTO – United Nations World Tourism Organization (2003): Climate change and tourism. Proceedings of the 1st International Conference on Climate Change and Tourism. Djerba, 9–11 April 2003. Retrieved from: sdt.unwto.org/sites/all/files/pdf/tunisia_finrep_en.pdf (Accessed on 13 December 2012).
- UNWTO – United Nations World Tourism Organization (2004): Indicators of Sustainable Development for Tourism Destinations – A Guidebook. Madrid: United Nations World Tourism Organisation.
- UNWTO – United Nations World Tourism Organization and United Nations Environment Programme – UNEP (2008): Climate Change and Tourism – Responding to Global Challenges. Madrid: World Tourism Organization and the United Nations Environment Programme.
- Urbanc, M., Pipan, P. (Eds.) (2011): ClimAlpTour – Climate Change and its Impact on Tourism in the Alpine Space. Ljubljana: Geografski inštitut Antona Melika ZRC SAZU & ClimAlpTour.
- Urry, J. (2002): The Tourist Gaze. Sage publications, London.
- Valese, E. (2010): The Alpine Forest Fire Warning System (ALP FFIRS) project. Retrieved from: www.alpffirs.eu/index.php?option=com_docman&Itemid=21&lang=it (Accessed on 13 February 2012).
- Viard, J. (2000) : Court traité sur les vacances, les voyages et l'hospitalité des lieux, L'Aube, La Tour d'Aigues.
- Viazzo, P.P., Merlo, G., Zanotelli, F. (2010): Una nuova mappa della vita' già vecchia? Famiglia e assistenza in area alpina. In: *Lorenzini, C. (Ed.): L'animazione per gli anziani. Le ragioni di un servizio nella montagna friulana: riflessioni, confronti e prospettive socio-antropologiche. Udine: Forum Edizioni, 31-52.*
- Weiermair, K., Pechlaner, H., Strobl, A., Elmi, M., Schukert, M. (Eds.) (2011): Coping with Global Climate Change – Strategies, Policies and Measures for the Tourism Industry. Innsbruck: Innsbruck University Press.
- Wegenstein, W.O., Jost, C. (Landammann) (1952): Wirtschaftsgutachten für die Landschaft Davos, Detaillisten- und Rabattverein.
- Wilts, H. (2005): Sportevents und Nachhaltigkeit. Projekt: Eventkultur und Nachhaltigkeit. Wuppertal: Institut für Klima, Umwelt, Energie GmbH. Retrieved from: www.eventkultur-lab.de/img/static/uUpload/sport-format.pdf (Accessed on 12 February 2012).
- Wipf, S., Rixen, C., Fischer, M., Schmid, B., Stoeckli, V. (2005): Effects of ski piste preparation on Alpine vegetation. *Journal of Applied Ecology* 42 (2), 306–316.
- WWF – World Wide Found (2006): Alpi e turismo: trovare il punto di equilibrio. Milano: WWF Italia. Retrieved from: www.wwf.it/UserFiles/File/WWF%20Turismo/Dossier/Alpi_e_turismo.pdf (Accessed on 13 February 2012).

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