Tagung der Alpenkonferenz

Réunion de la Conférence alpine

Sessione della Conferenza delle Alpi

Zasedanje Alpske konference

XV

TOP / POJ / ODG / TDR

A4

OL: EN

ANLAGE/ANNEXE/ALLEGATO/PRILOGA

3

REPORT OF THE
Green Economy Advisory Board
on the 2016-2019 mandate

1. Overview of 2016-2019 mandate or relevant decision of the Alpine Conference

Brief summary of the main activities according to the 2016-2019 mandate or relevant decision of the Alpine Conference
Elaboration of a comprehensive and ambitious Action Programme for a Green Economy in the Alpine Region for consideration at the next Alpine Conference, with the purpose of further elaborating the recommendations listed in the RSA6 and of identifying concrete fields of actions and the relevant actors to foster an Alpine green economy. Involvement of all relevant stakeholders in the Alpine region during the development of this Action Programme, particularly business, municipalities and towns, NGOs and the civil society.

2. Meetings

Summary of the meetings
30-31 March 2017, Innsbruck (AT)   06-07June 2018, Munich (DE)   12-13 December 2018,Berlin (DE)

3. Activities carried out

Report on activities carried out (including meetings, conferences)
- Workshop 1: Business models for the sustainable use of natural resources in the Alpine region (27 September 2017, Immenstadt, D).   - Workshop 2: Circular economy (25 October 2017, Edolo, IT).   - Workshop 3: Alpine towns as pioneers for a Green Economy (9/10 November 2017, Villach, AT).   - Workshop 4: Eco-innovations (13 November 2017, Basel, CH).   - Workshop 5: Climate change, energy and construction (14 November 2017, Grenoble, FRA).   - Workshop 6: Financing innovation for a Green Economy (29 November 2017,

Gorizia, IT).

- GEAP Online Consultation: November-December 2017.
- Elaboration and coordination of GEAP drafts.
- Communication activities: Presentation of GEAP process to different stakeholders (e.g.: EUSALP Annual Forum 2017, GreenConnect Workshop, AC and EUSALP Exchange Workshops 2017/ 18, Workshop with Alpine Towns of the Year, IPROMO Summer School); Preparation of flyer (planned for 2019); Presentation at the AlpWeek Intermezzo (planned for 2019).

4. Results and outputs

Description of main results and outputs achieved
• Elaboration of the final draft Green Economy Action Programme, which includes a list of 33 possible concrete actions.

5. Cooperation

Description of cooperation initiatives and activities with other Alpine Convention Thematic Working Bodies and other relevant bodies and processes (e.g. EUSALP)
• Presentation at EUSALP Annual Forum 2017. • Coordination and exchanges with AC thematic working bodies and Observers, as well as with EUSALP's Action Groups for the definition of the content of the Action programme, along with the identification, adaptation and selection of the Green Economy actions.

6. Attachments

List of the documents attached to the report
• Final Draft Green Economy Action Programme. • Workshop Documentations. • GEAP survey results.

Action Programme for a Green Economy in the Alpine Region

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

Umwelt Bundesamt

Action Programme for a Green Economy in the Alpine Region

By

Dorothea Palenberg, Marianne Badura
blue! advancing european projects – consulting engineers

Wolfgang Pfefferkorn, CIPRA International

Sabine Zillmer, Spatial Foresight

Co-Authors: Elisa Agosti, CIPRA International;
Christian Lüer, Spatial Foresight

On behalf of the German Environment Agency.

The authors are responsible for the content of this publication.

This action programme for a green economy in the Alpine region was approved by the Alpine Conference on 4 April 2019 during its XV meeting in Innsbruck (Austria).

The text has been drafted by the contracted consultants of the Green Economy Advisory Board, with the collaboration of its members and of the Permanent Secretariat of the Alpine Convention. Further input for the content of the selected actions was provided by other Alpine Convention's working bodies and Observers, as well as by relevant action groups of the EU strategy for the Alpine region (EUSALP).

The preparation of the action programme for a green economy in the Alpine region was coordinated by the chair of the Green Economy Advisory Board and the Permanent Secretariat of the Alpine Convention.

Moreover, we would like to thank all stakeholders who participated in the international conference in Rosenheim, in the six workshops and in the online consultation, all conducted in 2017. These exchanges amongst a high number of relevant stakeholders ensured a very valuable input for the action programme.

The text can be downloaded here: www.alpconv.org

Austria
Ewald Galle (Bundesministerium für Nachhaltigkeit und Tourismus - Federal Ministry for Sustainability and Tourism)

France
Isabelle Paillet (Ministère de la Transition écologique et solidaire - Ministry for the Ecological and inclusive Transition)

Germany
Silvia Reppe (Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit - Federal Ministry for the Environment, Nature Conservation and Nuclear Safety)

Italy
Paolo Angelini (Ministero dell'Ambiente e della Tutela del Territorio e del Mare - Ministry of the Environment and for the Protection of Land and Sea)

Liechtenstein
Helmut Kindle (Amt für Umwelt - Office for the Environment)

Monaco
Wilfrid Deri (Ministère d'État, Département des Relations extérieures et de la coopération - State Ministry, Department of External Relations and Co-operation)

Slovenia
Blanka Bartol (Ministrstvo za okolje in prostor - Ministry of Environment and Spatial Planning)

Switzerland
Silvia Jost (Bundesamt für Raumentwicklung - Office Fédéral du Développement Territorial - Ufficio Federale dello Sviluppo Territoriale - Federal Office for Spatial Development)

European Union
Giacomo Luciani (European Commission, DG Environment)

Action Programme for a Green Economy in the Alpine Region

Table of contents

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AC	Alpine Convention
ACB	Alpine Climate Board
Alparc	The Alpine Network of Protected Areas
ARPAF	Alpine Region Preparatory Action Fund
BfN	German Federal Agency for Nature Conservation
CIPRA	Commission Internationale pour la Protection des Alpes / International Commission for the Protection of the Alps
ESPON	European Spatial Observatory Network – EU Funding programme on spatial development
ESS	Ecosystem Services
EU RIS3	European Union Research and Innovation Strategies for Smart Specialisation
EUSALP	European Union Strategy for the Alpine Region
EUSALP AG	EUSALP Action Group
GEAP	Green Economy Action Programme
HORIZON2020	EU funding programme 2014-2020 on Research & Innovation
IRSTEA	National Institute for Environmental and Agricultural Science and Research in France
ISO	International Organization for Standardization
MBI	Market-based instrument
MFF 2021-2027	Multiannual Financial Framework (for the upcoming EU funding period post 2020)
NZEB	Net Zero Energy Buildings
PES	Payment for Ecosystem Services
PPP(P)	Public-private-(people) partnerships
PLANALP	Natural Hazards Platform of the Alpine Convention
PSAC	Permanent Secretariat of the Alpine Convention
RSA6	Sixth Report on the State of the Alps
SDG	Sustainable Development Goal
SME	Small and medium sized enterprise
TEEB	The Economics of Ecosystems and Biodiversity
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
YPAC	Youth Parliament of the Alpine Convention
WISO	Large Carnivores, Wild Ungulates and Society Platform of the Alpine Convention

EXECUTIVE SUMMARY

The Green Economy Action Programme (GEAP) for the Alpine region is based on the outcomes of the sixth Report on the State of the Alps (RSA6), in which a green economy is defined as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities".

The RSA6 identified four key thematic areas within which the GEAP has formulated the following priority objectives with regard to progress towards an Alpine green economy 2030:

- The Alpine green economy will achieve high **energy efficiency**, using clean and renewable energy and **absolute decoupling of economic growth from greenhouse gas emissions**, in line with both the target of a climate-neutral and resilient Alpine region by 2050 and the energy goals of the Contracting Parties of the Alpine Convention.

- The Alpine green economy will **increase resource efficiency** and transform its production and consumption patterns into a **circular economy**, thereby focusing on the sustainable economic use of forest, water and soil within the framework of an **ecosystem services (ESS)** approach. This supports the achievement of the Sustainable Development Goals (SDGs) of ensuring sustainable consumption and production patterns (SDG 12) as well as a land degradation neutral world (SDG 15).

- The Alpine green economy will continue to **preserve its natural capital and prevent the loss of biodiversity and ecosystem services**. The application of the concepts of ecological networks and green infrastructure are considered crucial.

- The Alpine green economy will **improve the quality of life and well-being of Alpine residents**, especially through reduction of harmful emissions and the creation of green jobs. Moreover, by offering a unique landscape and natural experiences, the region can also positively influence the **quality of life of people who are visiting** the Alps.

The GEAP mentions several compelling reasons to highlight the Alpine area as a region with specific urgency for the implementation of a green economy: The large areas with a potential to deliver ESS, the spatial limitations of the territory, the high vulnerability of the habitats, the strong traditional anchoring of the inhabitants and the global visibility as a touristic hot-spot.

The challenge of evolving into a digital society is considered a crucial and cross-cutting theme that affects all future activities.

The GEAP has developed actions, all of which are clustered into action fields. The latter represent processes that are manageable, realistic and impactful and that help to foster the transformation toward an Alpine green economy 2030. The GEAP is thus not a thematic programme, but more an "operationalising" instrument for all thematic areas. The action fields are:

- Greening finance and the financial support structures,

- Encouraging eco-innovation,

- Greening regional development,

- Valorising ecosystems and biodiversity,

- Living and working in a green economy.

The GEAP has defined 33 actions, which may be implemented and tailored to demands, priorities and capacities. The actions are grouped into the above mentioned clusters. These actions are broadly designed to allow for adaptation with regards to thematic or territorial specifications, country framework conditions or available funding. It is acknowledged that it might be necessary to mobilise additional resources (e.g. funding projects) to realise actions. Moreover, possible roles of key actors and co-operation partners are defined in a general way and will require further planning in the preparation for implementation.

All actions strictly follow key criteria, which ensure that the GEAP is a stakeholder-driven, realisable and broadly supported programme that builds on existing achievements, responds to economic needs or generates economic impact, and pushes innovative initiatives towards a truly transnational, cooperative approach. The list of actions represents a non-exhaustive "starting package" to which further actions can be added.

There are several options to boost transformation in the long term, such as being an active policy player, establishing a continuous learning process, integrating relevant actions into the future mandates of the working bodies of the Alpine Convention, involving young people (e.g. through the Youth Parliament of the Alpine Convention) and outreaching and collaborating with a wide range of observer organisations that ensure public participation.

Finally, in order to guarantee a long-term impact of the GEAP actions, monitoring and evaluation procedures are suggested. The GEAP requires institutional arragements through the Alpine Convention and its bodies for the integrated implementation and management of its proposed actions.

1. A Green Economy Action Programme for the Alpine region: How the Alpine Convention can pave the way to a green economy

1.1 A brief history, definition and context of the Alpine Convention's Green Economy Action Programme

How is "green economy" defined? The 6th Report on the State of the Alps (RSA6) (Alpine Convention, 2017) has agreed to use the United Nations Environment Programme (UNEP) definition of a green economy as the most widely used and authoritative one. UNEP defines a green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. Practically speaking, a green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency and prevent the loss of biodiversity and ecosystem services" (UNEP, 2011). This implies four key topics of a green economy that have been used in the RSA6:

- Energy-efficient and low carbon economy

- Resource-efficient economy

- Ecosystem-services and natural capital-based economy

- An economy supporting quality of life and well-being.

An Alpine green economy is one that considers and respects the environmental limits of the Alpine area, takes into account global challenges like climate change and limited natural resources, and supports the quality of life and well-being of its residents. An important pillar of an Alpine green economy is comprehensive and sustainable use of natural resources such as water, forests, timber and soil.

The RSA6 conducts a thorough analysis of the data and of the situation of the green economy in all Alpine countries, it identifies the most pressing challenges and it provides recommendations on how to ignite and sustain a shift towards a green economy in the Alps. The RSA6 delivers a multitude of good practice examples, thematic facts and insights as well as operative recommendations, including the call for a "comprehensive and ambitious Green Economy Action Programme", which would further elaborate and specify the recommendations and also identify specific fields of action with their relevant actors, such as businesses, municipalities, research institutions, NGOs and the civil society.

The RSA6 was adopted by the XIVth Alpine Conference in Grassau on 13 October 2016. The Conference entrusted Germany, in close cooperation with the Austrian Presidency, the other Contracting Parties, Observers as well as the Permanent Secretariat, with the task of elaborating a Green Economy Action Programme for the Alpine region (GEAP) to be presented at the next Alpine Conference in 2019. On this basis, a Green Economy Advisory Board led by the German Environment Agency was established.

The GEAP supports the implementation of the Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC, 2015). The content of the GEAP is strongly related to the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) (UNEP, 2015).

In order to elaborate such a programme, the Green Economy Advisory Board agreed on the following starting assumptions:

- The GEAP targets the levels on which change happens.

- The GEAP is bold and ambitious, but it avoids duplication of pre-existing processes.

- The GEAP speaks the language of those who will need to implement it; thus it is neither too scientific nor too abstract.

- The GEAP is participative and involves people on all levels, from different disciplines and sectors.

- The GEAP is collaborative with regards to multilevel governance and the cooperation with relevant observer organisations.

The key question is how to put all these principles into action, how to turn the existing knowledge into operation, in order to ignite and promote a major transformation process towards an Alpine green economy. This is what the present GEAP is all about.

1.2 The Alpine region and the need for a green economy: A specific case of urgency

The aim of this chapter is to provide a vision and a framework for the GEAP without isolating the topic from the wider thematic context at the global, national, and local levels.

What makes a green economy for the Alpine region special, and how can the Alpine Convention's GEAP contribute to this? In order to approach a common vision, it is relevant to cite content from the Alpine Convention's Multi-Annual Framework Programme 2017-22, where six priorities are agreed upon. One of these priorities is "greening the economy", which provides the background for the elaboration of the GEAP. Here, a specific reference is made to economic sectors with typical Alpine peculiarities, such as energy, transport, forestry, farming, building and tourism. The priorities also include social aims, such as the fair

and socially equitable management of economic processes and the mitigation of and adaptation to climate change.

The last Alpine Conference was the starting point not only for the GEAP but also for many other activities from the Alpine Convention's working bodies to strengthen cooperation for the transformation towards a truly sustainable and climate neutral Alpine region. These included elaborating a draft climate target system proposed by the Alpine Climate Board[1] and the development of common spatial perspectives "Alps2050" (Chilla and Heugel, 2018) elaborated by an ad hoc expert group on spatial planning.

For deeper appreciation, it is important to highlight the following aspects that make the Alps a specific and singular region, based on their common economic and ecological characteristics, intertwined challenges and opportunities:

- The Alps have comparatively large areas of pristine and valuable nature with an above-average potential to deliver ecosystem services (ESS). This comprises natural resources, namely forests (including timber), water and soil. The Alpine region utilises a wide range of these natural resources. Within the framework of an ESS-approach, a sustainable, economic valorisation is a key element of an Alpine green economy.

- Due to the limited territory for economic activity, an exceptionally fragile balance exists between the protection of biodiversity and natural habitats as sources for ecosystem services and the need for sufficient economic activity to sustain Alpine citizens.

- It is a region of traditions and of citizens that are proud and possessive of their environment and culture.

- It is a complex region, shared by multiple countries, where international and transnational coordination regarding rules and policies is pivotal. Challenges for greening the economy that are directly linked to mountain specific aspects or conditions (e.g. in mountain agriculture or with relation to mobility and transport) require Alpine wide solutions.

- The Alps comprise a region that is not only cherished by its inhabitants but also on a global scale. People around the world know the Alps, and, from an economic perspective, the Alps already have the reputation of a "green trademark".

In other words, these unique characteristics make a green economy in the Alpine region a singular case. Here, the need for a transformation is more pressing than in many other regions due to the decline of ecosystem services caused by current unsustainable economic practices including the overexploitation of natural resources. Also, due to the limited space, conflicts between stakeholders - inter alia with regard to the introduction of green technology, e.g. renewable energy installations - are more likely and urgently call for solutions. Furthermore, due to the strong sense of ownership from citizens with regard to their region, the need for participatory approaches is obvious. In ad-

dition, transnational structures have already been established that can promote development.

Finally, due to the global perception of the Alpine region as a valuable area, an Alpine model case for green economy has the potential to be acknowledged on a global scale and be used as a blueprint for other regions. Therefore, the Alpine region wants to evolve into a green economy model region.

In this context, and in order to manage the needed transition (see also chapter 2), practical evidence and convincing examples are needed to formulate strong political messages and to address the scepticism that in some circles questions the efficacy and desirability of a green economy. The GEAP does, therefore, not present scientific arguments and targets (since these have already been specified in the RSA6), but aims to provide concrete and operative steps, contributing not only to a transformation towards a green economy, but also to the creation of critical mass, on both the practical and the political level.

1.3 Weaving the threads: The strategic context for the GEAP

Coordination with corresponding political and economic strategies and promotion of synergies between thematically overlapping programmes and established efforts is a key principle for the GEAP. The following – a non exhaustive list of related actions and strategies – gives an overview of the potential challenges presented by the varied, parallel and sometimes redundant structures.

- First of all, the Alpine Convention itself carries out a vast amount of work through its 12 thematic working bodies, which are mandated with targeted activities and knowledge development. The GEAP incorporates some considerations of future activities of the thematic working bodies within the proposed actions in chapter 4.

- The Alpine Convention also relies on relevant thematic input documents that have been compiled within the last decade. For example, the brochure "Towards renewable Alps – A progress report for the period 2014-2016" gives valuable insights into political priorities, multilevel perspectives and fact-based recommendations.

- On a European scale, the GEAP is framed by several EU initiatives, such as the EU Circular Economy Action Plan, EU Biodiversity Strategy, EUROPE 2020, and the Digital Single Market Strategy. It is relevant that the GEAP substantiates environmental strategies and also produces facts and evidence for companies and public authorities to reap the advantages and opportunities offered by a green economy.

- In addition to this, the EU Strategy for the Alpine Region (EUSALP) is working on a transformation towards a green economy in nine Action Groups covering key topics ranging from innovation, education, environmental protection and

connectivity to energy efficiency and renewable energy. A significant cooperation already exists between the Alpine Convention and EUSALP, but this could be strengthened in the future. Furthermore, EUSALP picks up a large variety of regional policies and thematic strategies.

- Several EU funding programmes such as the Interreg Alpine Space Programme, LIFE, HORIZON2020 and ESPON produce valuable thematic information, strategies and structures, on which the work of the GEAP can rely and build. The funding priorities of all the programmes indicated focus on sustainable economic development by co-funding innovation, transnational cooperation and by linking economic, environmental and social aspects, thus supporting the overall goal of the EU2020 strategy, the EU's agenda for growth and jobs for the current decade (European Commission, 2010a).

- Digitalisation plays a key role and is integrated as a cross-cutting issue in the GEAP. Accordingly, national and EU strategies (e.g. the Digital Agenda for Europe (European Commission, 2010b) or the Alpine Digital Agenda (Alpine Convention, 2014)) will be relevant when working towards the GEAP's implementation.

1.4 Alpine green economy 2030

Considering all possible activities and the multitude of positions and strategies, the following priority objectives – in line with the thematic focus areas of the RSA6 – can be formulated with regard to progress towards an Alpine green economy in 2030:

Energy efficient and low carbon economy
The Alpine green economy will achieve high energy efficiency using clean and renewable energy and absolute decoupling of economic growth from greenhouse gas emissions. The Alpine region has the potential to achieve this priority objective in a cost-effective way, while maintaining the same levels of energy security and well-being. This is in line with the target of a climate-neutral and resilient Alpine region until 2050 and the energy goals of the Contracting Parties of the Alpine Convention.

Resource efficient economy
The Alpine green economy will increase resource efficiency and transform its production and consumption patterns into a circular economy, thereby focusing on a sustainable economic use of forest, water and soil in the framework of an ESS-approach. In this respect, the Alpine Convention and its Contracting Parties will cooperate to identify typical Alpine activities that are ready for technological, organisational and social innovations, and also to make use of national and EU funds for circular economy. An especially relevant topic for the Alpine region is to support the achievement of the 2030 SDG target of ensuring sustainable consumption and production patterns (SDG 12) and a land degradation neutral world (SDG 15). Special attention should be paid to incentives for sustainable land use.

Ecosystem and natural capital based economy
The Alpine green economy preserves natural capital and prevents the loss of biodiversity and ecosystem services. The implementation and continuation of sustainable mountain agriculture and forestry as well as the sustainable use of water and soil are a key to achieving this goal. Furthermore, the application of the concepts of ecological networks and green infrastructure are considered crucial.

The economic relevance of natural Alpine features will be better highlighted by assessment and monitoring of their natural capital.

Economy supporting quality of life and well-being
The Alpine green economy will improve the quality of life and well-being of Alpine residents. Moreover, by offering a unique landscape and nature experiences, the region can also positively influence the quality of life of people who visit the Alps. Through innovation and efficiency gains, harmful emissions will be further reduced. Green jobs offer new opportunities for economic well-being of residents and could be a trigger for a socially inclusive development.

---

[1] Further information: http://www.alpconv.org/en/organization/groups/AlpineClimateBoard/default.html.

2. How to trigger societal transition? The approach of the GEAP

This chapter describes the approach of the GEAP based on a brief review of current literature on societal transition and the stakeholder process for the preparation of the GEAP. It concludes with criteria for the selection of the different GEAP action fields in chapter 3.

2.1 How to achieve transition: Key insights from current change literature

The following chapter summarises key-insights that became relevant for identifying, selecting and shaping the proposed actions:

- A transition can be described as a set of interconnected changes that reinforce each other but take place in different areas. A successful transition can be understood as a spiral that reinforces itself, driven by multiple causalities and co-evolution, which (may) interlink during the transition process. It is, therefore, obvious that joint and coordinated learning of and by many different people is needed to make a (societal) transition work.

- Transitions cannot be managed in the classical manner of full control and supervision but rather in terms of "influencing" and "adjusting", which represents a more subtle, evolutionary way of steering. This way of steering creates a climate in which societal innovation can flourish at the time, level and location where needed. (Rotmanns and Kemp, 2003; Kooiman, 2003; Rotmanns and Loorbach, 2010)

- With regards to transition management, a sound and transparent communication among all parties involved is of crucial importance in this process. (Rotmanns and Kemp, 2003) Furthermore, the need for a long-term commitment to the process allows structural change to progress in an evolutionary, stepwise manner. Goals and policies should be periodically adjusted during the development.

- When assessing where change really happens, the local level appears to be the level that sets the step-by-step milestones for progress. While policy strategies may reflect the political will to change the society towards new development goals, an implementation gap can be observed when it comes to shared assumptions and dominant practices on the local level. It has been recognised that the most important players for change are companies and people acting at the local, "micro-level". Here, preferably under the umbrella of a political initiative, change can be sustainably triggered. It is, however, important that a critical mass of activity happens on the local level in order to provoke the desired transformation effect. (Sukhdev, 2012)

- When it comes to the question "where to start?", the literature suggests considering the existing structures as a suitable starting point: Managing a transition process should

be seen as complementing rather than conflicting with current policy.

- Beyond the mere theory on transition, the leverage points for sustainability transformation should be focused on "reconnecting people to nature, restructuring institutions and rethinking how knowledge is created and used in pursuit of sustainability" (Abson et al., 2016).

- Considering the role of the different actors in societal transition, the roles of individuals that push new developments should be emphasised. A specific focus of transition management is on "frontrunners", individuals with specific competencies and innovative ideas or practices with regard to a persistent problem. Individual actors are described in roles such as "frontrunner" "change agent", "champion" or "policy entrepreneur" (Wittmayer et al., 2017).

- According to the "model of promoters" (Kristof, 2010), the transition to a green economy may be better effected by involving different types of promoters who guarantee the interplay between technical, power and communication people (= players).

The governance of societal transition refers to interactions between multiple public and private actors to pool resources and achieve collective goals. Different governance approaches have been described and developed in transition research with a prominent one being transition management. It is described as the "attempt to influence the societal system into a more sustainable direction" by exploring future options through "searching, learning and experimenting" (Sauer et al., 2016). These findings make clear that, in order to make the GEAP a success, the process managers should apply different approaches that may help to favourably influence the transition process: (a) explorative and open formats based on large scale and bottom-up innovation by all involved actors; (b) political top-down decisions to guide the transition process through necessary steps of exnovation (i.e. exit from non-sustainable infrastructures, technologies, products and practices) (Heyen, 2017). Thus, the focus can be directed towards the creation of a favourable climate for the transition process.

A thematic approach has already been explored by numerous governmental strategies. However, the process orientation is identified as underrated and the "facilitation function" as crucial for further development. The GEAP reflects this orientation.

The GEAP should be seen as a process-oriented programme that is meant to create a critical mass of initiatives (chapter 3) from which strong political messages can be derived.

2.2 A participatory development process: Priorities shaping the action programme's setup

An essential conclusion of the literature analysis above for the GEAP regards the process that was chosen to draft the programme. As a matter of fact, in order to meet the wider understanding of the requirements for societal change, an effective stakeholder process was given priority compared to more abstract and theoretical assessments. As the GEAP is designed to manifest its impact in both the economic as well as the environmental world, both sides need to be heard and are equally relevant. Furthermore, its focus is on process-orientation: instead of discussing static objectives, successful operationalisation and the mobilisation of relevant contributions by stakeholders were taken into account.

Therefore, a series of six stakeholder workshops was carried out in this spirit and, moreover, an online consultation challenged the respondents with integrated key-statements that picked up relevant aspects and asked sub-questions with regards to processes necessary to push green economy principles. This stakeholder process was designed to better understand the priorities and needs on the local and regional level in order to be able to influence the national and international policy development. Four aspects were considered especially relevant:

- Committment to an improved understanding of local and regional needs through listening to keynotes that reflect these levels and demonstrate success factors.
- Based on the existing work facilitated and completed by the Alpine Convention, choosing workshop topics that were attractive to local and regional actors, reflected precise challenges on the interface between economy and ecology, and triggered cross-border cooperation. Furthermore, listening to the storylines of "change agents" to better understand their needs and requirements was central.
- Within the stakeholder consultation, the questions asked would always accommodate answers from different disciplines and levels, such as scientific institutes, municipalities, administrations, thematic representatives, networks.
- All activities within the stakeholder process were designed to bring together all relevant stakeholders in the Alpine Convention area, including – in addition to businesses – research, public institutions, civil society and sectoral institutions such as associations. However, in order to ensure outreach to economic actors, all recommended actions have an economic aspect.

2.3 Key-criteria for the selection of the action fields for the GEAP

The main aim of the GEAP is to deliver a stakeholder-driven, realisable and broadly supported programme that builds on existing achievements, responds to economic needs or generates economic impact and pushes innovative initiatives towards a truly transnational, common approach. The following list presents the criteria for the selection of the action fields:

1. **Process-orientation**: Actions fields should be process-oriented. Therefore, they should contain actions enabling successful processes that achieve progress in the priority objectives of the Alpine green economy 2030.

2. **Greening effects (Local and regional impact)**: Action fields should be able to have impact on the local and regional levels, as these are the levels where change happens and also where change is perceived and transferred into behavioural modification.

3. **Social benefits (People-orientation)**: Action fields should represent processes that put people in the centre of attention. Chapter 2.1 argues that an individual's decisions rather than institutional settings are the starting point for new developments and behavioural changes. Furthermore, learning and raising awareness, two key elements in societal transformation, are most effective when organised (either virtually or directly) as a people-to-people process.

4. **Economic benefits (Close-to-business)**: The transformation towards a green economy – a societal change that heavily touches on economic players – can only happen if businesses are significant particpants within the group of stakeholders. This concerns direct contact to local businesses but also a close connection to business chambers or potential investors.

5. **Start-from-the-well-known**: Action fields should be processes that start with well-known instruments. When new processes are to be ignited, the instruments and the starting points should be familiar.

6. **Realisable**: Action fields should be based on processes that are realisable within the competences and capacities of the Alpine Convention.

7. **Communicable**: It has to be considered that communication is key to the creation of impact. For each action, we should consider how to communicate it. This concerns both the instruments and target groups of communication, as well as the language that is used. Also, it is relevant that the chosen language is close to the local level and understandable.

3. Becoming operational:
Action fields as framework for organising initiatives

3.1 What makes an effective action field? Definition

It is notable that the RSA6 devoted an entire chapter to "Instruments and Measures for a Green Economy". The differences and the thematic overlap with the actions proposed in the GEAP will be explained below. Wherever possible, recommendations given in the RSA6 on how to shape policy fields and create favourable framework conditions for green economy have been reviewed, and concrete actions for the GEAP have been developed. However, it should be mentioned that the action criteria developed for the GEAP do not include instruments and regulations where the area of influence of the Alpine Convention is considered too weak.

The "action fields" of the GEAP stand for processes that are manageable, realistic and impactful and help to foster the transformation towards an Alpine green economy until the year 2030. The GEAP action fields meet the criteria elaborated in chapter 2.3 and are "processes" that put the priority objectives from chapter 1.4 into action.

The proposed individual actions thus represent possible processes within the spectrum of activities and competences of the Alpine Convention, also taking into account the current efforts in the working groups and platforms.

The GEAP targets the Alpine countries and all relevant stakeholders of the Alpine Convention at the regional and local levels. The following action fields focus on societal processes that are necessary for an effective evolution towards an Alpine green economy. The action fields may overlap, but they represent different perspectives on the challenges at hand:

- **Greening finance and the financial support structures**
- **Encouraging eco-innovation**
- **Greening regional development**
- **Valorising ecosystems and biodiversity**
- **Living and working in a green economy.**

The following picture shows the thematic areas that are relevant for the Alps and how the GEAP addresses them by using the processes suggested per action field:
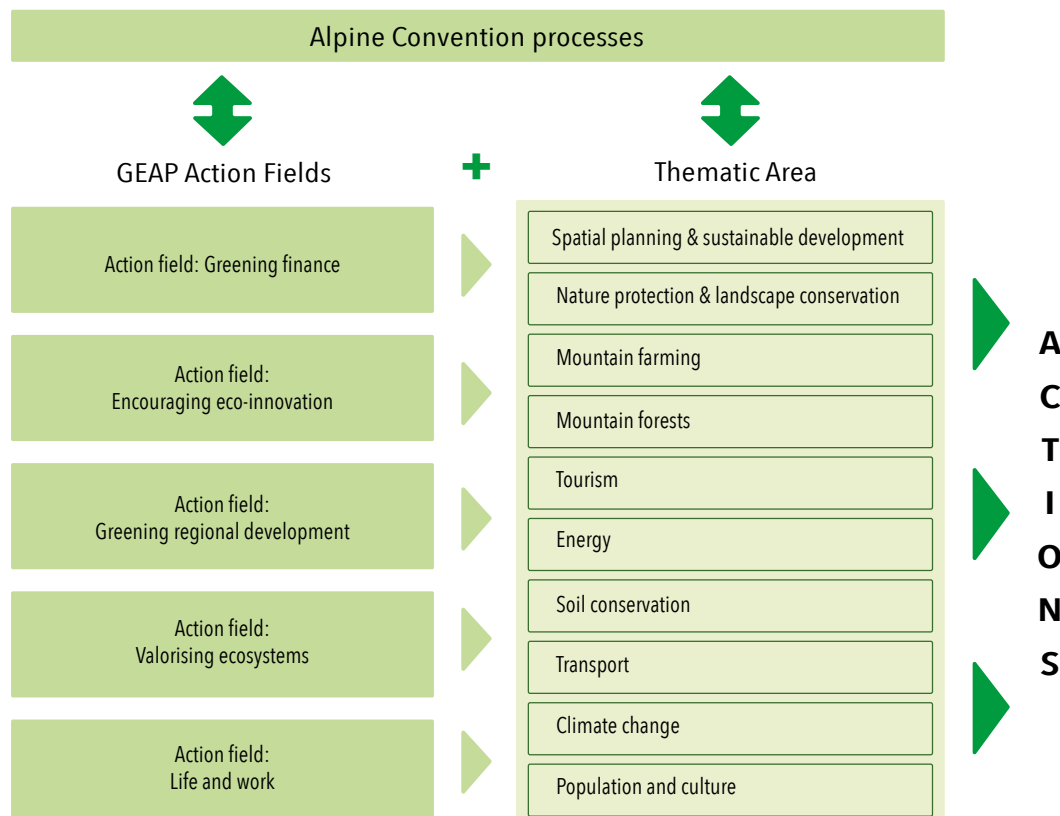
Figure 1: Illustration of interconnection between action fields and thematic areas under the umbrella of the Alpine Convention.

The action fields can be differentiated from each other but are strongly interconnected and sometimes overlapping. Therefore, they are defined as different groups of processes designed to achieve a change in a thematic area, (e.g. Action Field "Greening finance", "Greening regional development", etc.) or a change of perspective ("Encouraging eco-innovation" focusing on how to assist the mainstreaming of new environmental ideas and "Living and working in a green economy" focusing on environmentally responsible human behaviour in daily life). Moreover, the list of action fields can be further developed in the future, and regular re-assessment of relevance is recommended. The present set of action fields is designed to leverage relevant actions that enable smooth, efficient and effective initiation of the GEAP.

3.2 Framework for the action fields

The presentation of the action fields in the following sub-chapters is structured as described here:

- The relevance of the action field is aligned with the priority objectives defined in chapter 1.4 and complies with the key criteria described in chapter 2.3. The criteria consider both the aspects of how the effects of a green economy can be measured, e.g. greening effects of an action, and how the transformation process itself can be supported, e.g. by having a process-orientation .

- The description of the action field considers limits and describes existing and potential interfaces with other topics of importance for the specific action field. It has been envisaged to clearly describe where synergies and overlaps with other action fields exist and where the limits lie, e.g. set by the competences of the Alpine Convention.

- A causal derivation of the content of the action fields is based on the contents of the RSA6, the stakeholder process conducted in 2017, and the insights of societal transition mechanisms.

- The actions selected by the representatives of the Contracting Parties and the working bodies of the Alpine Convention are presented and briefly described.
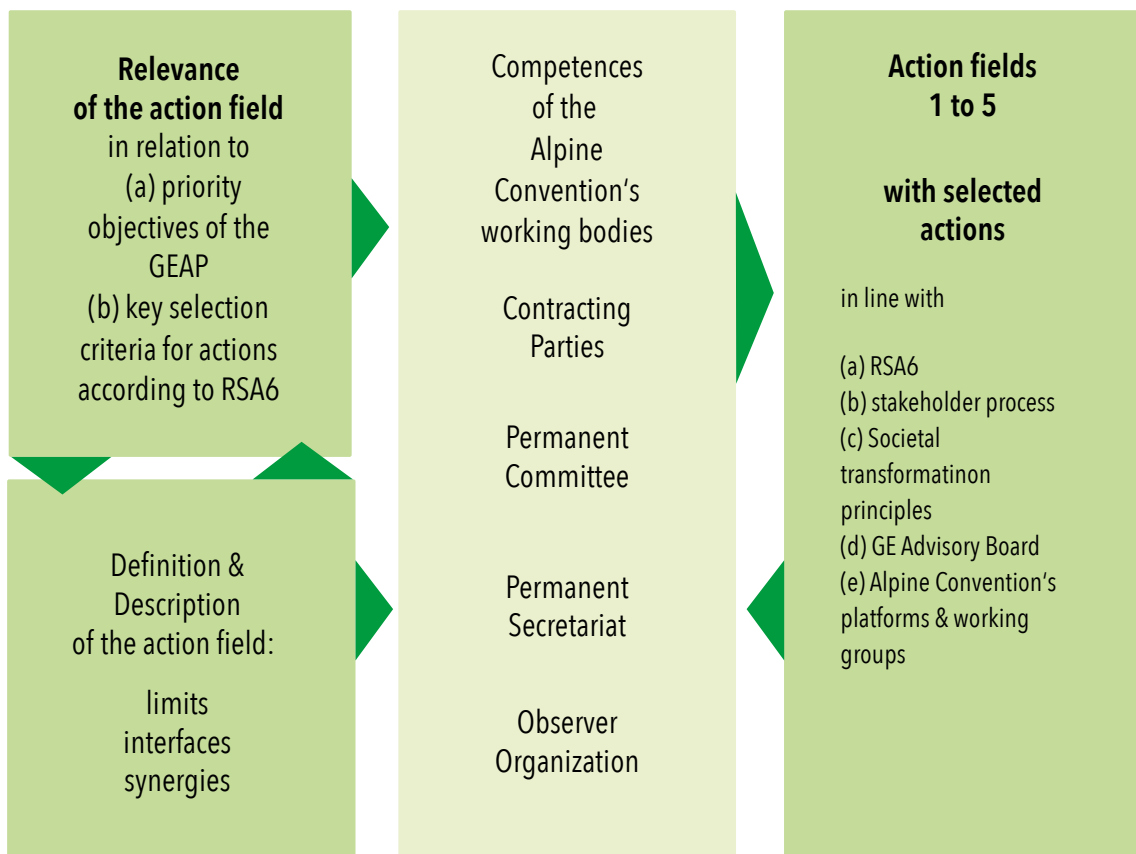
Figure 2: Structure of the sub-chapters 4.1 to 4.6 presenting the relationships between action fields, the proposed actions and the Alpine Convention.

Regarding the selected actions, please note the following information:

- The actions represent proposals for future activity. The specific GEAP actions are suitable for implementation depending on demands, priorities and capacities. This also refers to the suggested action leads, participants and further actors to be involved. Consequently, no financial commitments are needed at this point.

- The actions are mostly designed in a broad way, in order to allow for adaptation with regards to thematic or territorial particularities, country framework conditions or available funding.

- It is acknowledged that it might be necessary to mobilise additional resources (e.g. funding projects) to realise actions.

- The GEAP requires institutional arragements through the Alpine Convention and its bodies for the integrated implementation and management of its proposed actions.

- Possible roles of key actors such as organs of the Alpine Convention are defined in a rather general way. The envisaged responsibilities for each role are as follows:

  · Initiator: Coordination of the action's initiation through identification and briefing of the appropriate lead and accompaniment of the action in the first stage.
  · Chair: Representation of the action to further stakeholders and regular chairing of a status meeting
  · Promoter: Coordination of a campaign or similar initiative that advances awareness of a subject.
  · Host: Responsibility for either an IT-platform or the "hosting" of an event or a limited phase of intensive interaction.
  · Implementer: Responsibility for the implementation of the action.

4. Action fields of the GEAP

4.1 Greening finance and the financial support structures

4.1.1 Relevance of the action field and compliance with the criteria

The GEAP strives to put the priority objectives expressed in Chapter 1.4 into action. In general, financial instruments are considered key incentives for implementing political objectives. They are operable on all governance levels and have a high potential to generate local and regional impact. Looking at it from a micro-perspective, people and all the daily routines of businesses and administrations (managed by people) are associated with costs in order to develop products or services or to implement policies. Financing and financial support structures have a major impact on steering societal performance. Furthermore, they require verifiable and measureable results through a clear definition of the subject of financing, for example a business loan or the funding of a project.

Financing and financial support structures vary among the most well-known outlets, both for the "users" and for the donors. It is true that a wide range of financing tools already exists, however, there may be a lack of green financing instruments. Pursuing the idea to "start from the existing", the topic offers a wider range of possible activities that have direct impact at the local and regional levels. Here, we focus on the most obvious instruments, which means the most common (e.g. loans and funding programmes) as well as the most accessible instruments such as crowdfunding. As a consequence, we selected the following instruments as subjects of the GEAP:

- Private bank loans for businesses, other bank products or bank-managed incentive schemes for private households and businesses on the regional and local levels

- Funding programmes from public institutions or public banks

- Direct investments

- Crowd funding and similar alternative financing options

- Financing mechanisms to avoid environmental cost.

The Alpine Convention has a wide and flexible range of means to influence financing choices, e.g. the shaping of future or modification of existing funding instruments, the conduction and publication of relevant studies, the provision of aggregated information via events or publications and the promotion and discussion of success stories. All levels of governance can be included, and at the same time, local and regional impact can remain in focus. With regards to more complex financing aspects, such as eco-taxes, the scope of action would be limited to guidance, as the introduction of such measures can only be handled on the national level (see for example Italian Ministry for Environment, Land and Sea & UNEP, 2017).

4.1.2 Definition of the action field

This action field is strongly intertwined with most of the other action fields, as financing is an integral part of our daily work and life. Since financing is a significant driver of processes, this action field has, in addition to its "stand-alone" characteristics, a strong support function for the other actions fields. As this action field is described quite elaborately, the further action fields will refer to actions proposed by the action field "Greening finance" and financial support structures and enhance their content.

Some distinctions should be made between overlapping action fields. For example, there is a strong connection between "Greening finance" and the action field "Living and working in a green economy". In the latter, consumer behaviour and green jobs are also strongly intertwined with financing aspects. However there, the steering originates with the consumer or employee, thus from the user of an offer that requires financing. The "Greening finance" action field focuses solely on the perspective of the donor of funds and proposes ideas for how the Alpine Convention might influence those structures.

A close connection exists as well to the action field "Valorising ecosystems and biodiversity"; for example, the internalisation of external costs is a relevant issue with regard to financing. However, the focus of the latter is on – among other things – the development of profitable value chains. Consequently, the topic of internalising external costs can be better dealt with in the action field "Valorising ecosystems and biodiversity".

In addition, the action field in support of "Eco-innovation" is also strongly connected to financing. However, the latter will focus more on governance aspects and on the identification and development of innovative processes, while the "Green finance" action field focuses on financial flows.

4.1.3 Proposed actions of action field "Greening finance and financial support structures"

Action 1.1	Providing a classification (taxonomy) of Alpine green projects, assets and activities
Description	The aim will be to promote the elaboration of a "standard" for green initiatives in the Alps based on sound shared criteria and taking into account the ongoing work of the International Organization for Standardization (ISO). In order to better frame the vocabulary and systemise the widespread area of green economy, a classification adopted by the AC will lay a good foundation for further activities. Together with financing bodies and investees, a joint process to convene and create a dialogue about "greenness" of a project, an activity or an asset should be created. Ideally, the results of this task could be used for ongoing discussions about Green Finance on the EU and international level. The process should be in line with and based on existing work at the EU level, such as the EU taxonomy on green economic activities. The process could be structured in the following phases: 1. Compilation of up to 12 key financial instruments/ bodies, based on existing literature: 6 funding programmes; 6 "close-to-bank" financing bodies 2. Screening of their definitions/ matching analysis with EU definitions 3. Symposium (also possible: online conference) on approaches for definition of "greenness"/ "Testing" of definitions with regards to best practices/ reflection on benefits 4. Development and adoption of a "Classification of Alpine green projects, assets and activities" 5. Communication of the results to target groups.
Type of activity	Expert meeting, preceded by desk research and followed by a decision making process
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Relevant thematic working body of the Alpine Convention
Suggested part of a future mandate?	Yes
Participants	Representatives of financing bodies, banks as well as AC Observers, members of working bodies of AC
Local / transnational	Transnational
Target group	Political decision-makers on local, regional and national levels as well as representatives of banks and (business) funding programmes
Expected results	Providing a basis for decision-making when actors plan to green their investments
Starting date	2019 or later
Duration	1 year
Recommended cooperation with	EUSALP AG 1 and AG 2

Table 1: Action 1.1: Providing a classification (taxonomy) of Alpine green projects, assets and activities.

Action 1.2	Public-private-(people) partnerships (blended finance) to share risks, costs and returns
Description	Although public-private-(people) partnerships (PPP(P)) are not a new financing instrument, the application in the context of the GEAP has the potential to reveal new pathways for processes on the local and regional level. In line with the AC proposals for public participation (e.g. in the field of energy the "energy democracy paradigm") this action has the potential to expand PPP towards public-private-people partnerships (PPP(P)). The action could be structured as follows: 1. Application of state-of-the-art principles of PPP(P) to both the context "green" and "Alpine": What are unique potentials? 2. Collection of best practice examples of PPP(P) in the Alpine area for specific thematic areas, such as green infrastructure or renewable energy projects 3. Round table with best practices and experts to identify success factors and potential; estimation of potential cost savings in different sectors 4. Development and description of concise and comprehensible guidelines on PPP(P) for local/ regional actors for green projects.
Type of activity	Study with embedded event
Expected role of Organs of the AC to be involved	Initiator – AC working body on green economy as cooperation partner
Activity led by	Relevant thematic working body of the Alpine Convention or Alpine country
Suggested part of a future mandate?	Yes, but only as a small project embedded in a more general and long-term activity
Participants	New partner to the AC from the financing sector to be identified and appointed, local actors, experts
Local / transnational	Transnational
Target group	Local and regional governments
Expected results	Lowering the barriers for "getting started" on the local and regional levels for green economic activities, thereby easing the access to finance for green projects developed in PPP(P).
Starting date	2019
Duration	6 months
Recommended cooperation with	EUSALP AG 2, Chambers of Commerce

Table 2: Action 1.2: Public-private-(people) partnerships (blended finance) to share risks, costs and returns.

Action 1.3	Blended finance to provide microcredits on the local level in the Alps
Description	Microcredit systems have proven to be useful in advancing green activities on the local level. However, although this is considered highly useful and "catalytic" for many green initiatives, barriers have to be tackled with regards to organisation & provision (which should be rapid and uncomplicated), responsibility & accountability (defining who operates and audits the process), financing (joint financing from different sources) and communication.
	Focusing on the boosting of local actions, these questions should be solved. Therefore two documents could be developed and promoted:
	- Strategy paper on microcredits for green actions that represents the adoption of Alpine wide principles and approaches.
	- Step-by-step guide to set up a microcredit system on the local level should be developed as an online and print version. This microcredit system could be (part of) a private institution, a public institution or a framework under which public or private institutions are able/more willing to offer microcredits.
	In order to become concrete and to provide a convincing example, one or two pilot microcredit system(s) should be established, monitored and evaluated.
	The project could also be embedded in an application under Interreg or LIFE.
Type of activity	Study and pilot project
Expected role of Organs of the AC to be involved	Initiator – AC working body on green economy as cooperation partner
Activity led by	Actor with knowledge in the field, preferably a bank with local offices, e.g. an ethical bank or a bank with a green profile
Suggested part of a future mandate?	Yes, but only as a small project embedded in a more general and long-term activity such as "financing instruments"
Participants	Relevant thematic working bodies of the Alpine Convention, funding programmes, pilot communities, microcredit experts
Local / transnational	Transnational
Target group	Local and regional governments
Expected results	Lowering the barriers for "getting started" on the local and regional level for green economic activities
Starting date	2019
Duration	3-4 years
Recommended cooperation with	tbd

Table 3: Action 1.3: Blended finance to provide microcredits on the local level in the Alps.

Action 1.4	Promoting green starts-ups & crowd funding on the local level
Description	Many people on the local or regional level have promising ideas, but the potential realisation is hampered by the absence of assistance on the local level. The present proposed action represents a promotion campaign that intends to create a holistic and supportive atmosphere on the local level as well as anchor a better understanding of the functioning of such systems. It is designed to attract, convince and guide decision-makers at the local and regional institutions who have the potential to make things easier. The key-elements to be tackled could be the following: - Develop a brochure & the cornerstones of a promotion campaign including the following elements: · Identify especially relevant aspects of such a system for the Alpine region. · Create the image of "green local heroes" and promote them · Create a sense of community. How can a citizen help "his/ her" local heroes, e.g. through crowd funding? · Design a pathway for a community to generate a process of funding (citizens who help) and promote the start-up processes (citizens who implement). - Create a platform where these local activities are registered and link them to one another. - Conduct a background study on the potential and characteristics of crowdfunding in the locations that are included in the campaign. The task can be implemented in different scales of detail. Here, the concreteness and regional adaptation depends on the available financing. As a starting point, a brochure with key examples from different countries could be elaborated.
Type of activity	Promotion of a brochure (optional: creation of interactive map, also usable for other activities); Study
Expected role of Organs of the AC to be involved	Initiator – AC working body on green economy as monitoring partner
Activity led by	CIPRA in cooperation with partner from the financing sector
Suggested part of a future mandate?	Yes
Participants	-
Local / transnational	Transnational network of local activities
Target group	Local decision-makers
Expected results	Lowering the barriers for "getting started" on the local and regional levels for green economic activities
Starting date	2019
Duration	3-4 years
Recommended cooperation with	tbd

Table 4: Action 1.4: Promoting green starts-ups & crowd funding on the local level.

Action 1.5	Influencing future EU funding programmes and activities for sustainabilisation of diverse regional, national and international funding and support programmes
Description	With its political influence, the Alpine Convention has the potential to be a strong voice in the context of the preparation of EU's next Multiannual Financial Framework (MFF 2021-2027). Here, compatibility and timing of the inputs, well-coordinated with the member states, are key factors for generating a strong impact.
	The EU funding programmes are suggested as primary target programmes. This action can of course also be exercised for any other funding programmes in order to use available resources with optimised efficiency. Together with experts, the AC should elaborate a comprehensive statement as a multinational voice in the negotiations for funding programmes. The action could be preceded by a consultation phase (optional).
	During the Alpine Conference, the starting point could be set by agreeing that all contracting parties will jointly develop a set of needs and proposals in line with RSA6 and the general approach of the Green Economy Action Programme. This endorsement of the political framework in the beginning could be most relevant.
	It is significant that the paper strives for a consensual approach with the approaches of the Alpine EU member states. Ideally, the Alpine Convention paper could cover a part of their national statements. Furthermore, it is highly desirable to enrich such a statement with stakeholder evidence, highlighting the economic benefits of green economy approaches.
	The paper could also be further used for a sustainabilisation of further funding and support programmes on regional, national and international levels. For this reason, a roadmap will be set up and country related versions of the paper will be developed. In addition, it is crucial to communicate this paper to networking partners at the EU level.
Type of activity	Study and communication of results
Expected role of Organs of the AC to be involved	Initiator and implementer
Activity led by	(French) Alpine Convention Presidency
Suggested part of a future mandate?	Needs to be emphasised as a general framework
Participants	Circle of experts, relevant thematic working bodies of the Alpine Convention
Local / transnational	Transnational
Target group	EU Commission and member state focal points, national ministries for economy (these are mostly the ones to negotiate the MFF 2021-2027)
Expected results	Stronger focus of the MFF 2021-2027 on the thematic priorities of the AC; Experts could deliver a well-reasoned policy paper and involve more deeply the competent bodies in different green economy activities.
Starting date	1 year, after this follow up and adaptation
Duration	3-4 years
Recommended cooperation with	EUSALP general steering committee

Table 5: Action 1.5: Influencing future EU funding programmes and activities for sustainabilisation of diverse regional, national and international funding and support programmes.

Action 1.6	Promoting set-up of and investment in green bonds and green/ social impact banking products
Description	A general promotion of the topic can support the awareness of green bank products and generate greener consumer behaviour. This should make more financial capacities for green business activities available. The promotion campaign should also generate knowledge and provide evidence. The campaign should, therefore, be composed of the following elements: - Round tables with banks that help elucidate how green bonds (and other bank products) can have an advantage compared to "traditional" bond. - Better understanding and highlighting of the relationship between people that invest and people (businesses) who benefit. - Highlighting examples for successful economic processes. - Creation and distribution of a brochure.
Type of activity	Creation and distribution of a brochure (online and print)
Expected role of Organs of the AC to be involved	Initiator
Activity led by	CIPRA in cooperation with observer from the financing sector
Suggested part of a future mandate?	Yes, embedded in more general strategy
Participants	Experts from banks, relevant thematic working bodies of the Alpine Convention
Local / transnational	Transnational with local impact
Target group	Citizens, municipalities, businesses in the Alpine region
Expected results	Higher share of money invested in banking products that are compliant with the principles of a green economy.
Starting date	2019
Duration	2 years, regular follow up
Recommended cooperation with	tbd

Table 6: Action 1.6: Promoting set-up of and investment in green bonds and green/ social impact banking products.

Action 1.7	**Promoting examples and endorsement of intermediaries for creation and application of sustainable financial support schemes in the tourism sector**
Description	The present action focuses on bank products, such as loans, but a wider applicability to all touristic support schemes is encouraged. The tourism sector, as one of the key economic sectors, draws upon one of the core assets of the Alps (their pristine nature) and at the same time needs to be economically beneficial. When it comes to the use of financing schemes, this competitive sector is under considerable time pressure during the high season necessitating rapid decisions. A preferred pipeline for financing projects, infrastructures and facilities etc. in the tourist sector could be promoted – especially to tourist operators and in conjunction with policy instruments incentivising green or circular technologies and processes. Banks are often willing to support greener innovation or greener options.
	Convincing examples of how businesses in the tourism sector can have benefits by turning towards green banking products (such as sustainable loans e.g. for energy and resource efficient products or process technology) need to be presented quickly and at the right time. They should come from both the traditional banks as well as the green or ethical banks. The project should comprise the following elements:
	- Overview of existing green financing schemes available.
	- Encouraging banks to "green" their banking products
	- Assembling a set of criteria for green tourism (e.g. products or services to be
	- supported)
	- Establishing a clear strategy for how to achieve this through creation of a common
	- understanding in the target groups and through concrete and compelling information.
	In order to better identify what exactly is meant by the term "green" in the context of the Alpine region, a close cooperation with action 1.1. on taxonomy and classification is encouraged.
Type of activity	Overview study (desk research and systematisation), highlighting and explaining mechanisms to create good examples, round table with banking experts and banks, production and distribution of a brochure (online and print)
Expected role of Organs of the AC to be involved	Initiator and promoter
Activity led by	Relevant thematic working body of the Alpine Convention in cooperation with Observer
Suggested part of a future mandate?	Yes, as example of a more general strategy
Participants	Experts from green banks as advisors
Local / transnational	Transnational with local examples and impact
Target group	Banks and businesses in the tourism sector, municipalities as multipliers
Expected results	Higher share of demand and supply of green bank products in the tourism sector
Starting date	2020
Duration	3 years, regular follow up
Recommended cooperation with	tbd

Table 7: Action 1.7: Promoting examples and endorsement of intermediaries for creation and application of sustainabie financial support schemes in the tourism sector.

4.2 Encouraging eco-innovation

4.2.1 Relevance of the action field and compliance with the criteria

Eco-innovation can be defined as follows:

- "Eco-innovation is the process of developing new products, processes or services which provide customer and business value but significantly decrease environmental impact." (Fussler and James, 1996)

- "Eco-innovations are all measures of relevant actors (firms, politicians, unions, associations, churches, private households) which develop new ideas, behaviour, products and processes, apply or introduce them and which contribute to a reduction of environmental burdens or to ecologically specified sustainability targets." (Klemmer et al., 1999, cited in Rennings, 2000, p.322)

Eco-innovation is dealt with using a multilevel approach. Most of the Alpine countries have a national innovation strategy. In a majority of the cases, the strategies are technology-related, although innovation also represents a significant socio-economic challenge. Seen from the perspective of the "inventors", the innovation generally starts with the communication of an idea on the local level. For either incremental innovations, e.g. improvements in an existing production process, or for disruptive innovations that can result in new value chains, there is a need for "receiving people", who must listen to the idea. Moreover, the idea must be further processed in a cooperative approach between "the inventor" and "supporters". Facilitating the diffusion of the eco-innovation through the market or in the society is crucial to make the innovation a long-term economical and ecological success. Therefore, a socio-economic environment is needed where those ideas are cherished instead of being regarded as a disturbance. The action field will select and identify actions that especially happen on the local and regional level. The word "encouraging" in the title of the action field thus stands for the creation of a positive and constructive environment for green, innovative processes and their diffusion.

As is the case with some proposed actions in the action field on "Greening finances", it is relevant to communicate resulting benefits not only to the "inventors" but also the "supporters". It is evident how relevant good communication structures are, and the action field will make this a clear priority.

Innovation policy is of course a relevant framework factor. Here, a strong relation to the EU Research and Innovation Strategies for Smart Specialisation (EU RIS3-Strategies) (European Commission, 2014) should be highlighted. The RIS3 strategies are a prerequisite of the EU COM that regions need to develop in order to receive structural funds. As the latter have a regional focus, cover all regional/ national priorities and support options, and are comparable and "measurable", they might represent a useful orientation framework for action, especially for bringing actions into a transnationally comparable context.

The following list encompasses the range of possible topics from which the proposed actions have been derived:

- Greening profiles of regional innovation frameworks

- Instruments to foster disruptive innovations and their diffusion

- Instruments to foster incremental innovations and their diffusion

- Creating supportive framework conditions for innovators and cultivating innovative mind sets (Canice Consulting, 2017)

- Developing a supportive framework on the local and regional level

- Joint approaches for a competitive Alpine region

- Cooperative approaches for innovative synergies (cross-border or interdisciplinary).

4.2.2 Definition of the action field

Comparable to the other action fields, this action field shows significant overlap with others. In order to differentiate it from the others, it is relevant to choose the right perspective. The perspective shows who the drivers are and what obstacles need to be removed in order to organise smooth and successful processes. In the case of eco-innovation, we would like to state the following:

- Innovation in toto represents the entire procedural chain from the first idea to the market entry. Fostering eco-innovation cannot stop there but must also consider how to increase the diffusion of the innovation in order to make it a success story for businesses and the environment.

- Innovation takes place not only in relation to entrepreneurial products or services, but also in processes, business and organisational models as well as in social contexts.

- Disruptive and incremental innovations face separate and distinct challenges with regards to their management. Inventors of disruptive ideas require a different support environment and different skills to develop their idea towards a marketable product or service.

- Successful innovation-management is closely related to cooperative approaches between research, business and government. Only if these different "worlds" communicate efficiently can innovation processes be successful.

The main aim of this action field is to appreciate the conditions required to propel and implement successful innovation from the perspective of the people who have a new idea or proposal that may improve a process. The action field strives to make their lives easier and put these people in the centre of attention.

4.2.3 Proposed actions of action field "Encouraging eco-innovation"

Action 2.1	Comprehensive campaign for creating a supportive atmosphere for innovation at the local level through entrepreneurs and change agents
Description	Changing mind-sets on the local level and lowering the barriers to first steps for people with innovative ideas is a crucial element for the success of a societal transformation.
	Instead of many disparate activities, a multifaceted comprehensive campaign should tackle the following aspects:
	- Encouragement of change agents (e.g. video messages in town hall & flyers to private households)
	- Communication and media trainings for entrepreneurs on the local level
	- Transnational campaign on Alpine green inventions
	- Campaigning principles for good governance for innovation
	- Encouraging young people through the "young innovators award"
	- Knowledge campaign on innovation methodology (e.g. for education)
	- Best practice platform and visualisation of "land of good ideas".
	The idea is to create both a supportive atmosphere for innovation and promote the Alpine region as a whole. It is important to focus the campaign on genuinely Alpine topics, domains and assets.
Type of activity	Communication, campaigning in waves
Expected role of Organs of the AC to be involved	Initiator and chairing institution
Activity led by	Alpine Town of the Year or Alliance in the Alps
Suggested part of a future mandate?	Yes
Participants	Relevant thematic working bodies of the Alpine Convention, experts on innovation and public relation/communication experts.
Local / transnational	Transnational campaign on the local level
Target group	Citizens on the local level, multipliers on the local level
Expected results	Improved respect and support for local people with new ideas
Starting date	2019 or later
Duration	Up to 10 years in waves
Recommended cooperation with	EUSALP AG 1, AG 2 and 5

Table 8: Action 2.1: Comprehensive campaign for creating a supportive atmosphere for innovation at the local level through entrepreneurs and change agents.

Action 2.2	Support of innovative ideas in the Alpine region
Description	The action is designed to promote green and innovative ideas in the Alpine region. The following tasks could be implemented to encourage innovation:
	- Identification and multiplication of good governance approaches for innovation with a specific focus on the local level.
	- An IT-platform for overview and exchange on innovation, possibly connected to a potential climate change knowledge hub (It is also possible to foster exchange through other instruments such as awards).
	- A „Call for ideas" for specific thematic areas that the sixth Report on the State of the Alps (on Green Economy) and the Green Economy stakeholder dialogues have deemed specifically relevant, such as transport, logistics & railway system, climate mitigation and adaptation, renewable energies and materials (e.g. timber), sustainable valorisation of natural and cultural resources such as forests, water and soil or traditional knowledge etc. should be launched. The ideas should be processed in the open innovation platform.
	As an example for a concrete activity, EUSALP AG 4 could contribute by addressing new transport technologies such as automation for improved last mile connectivity (in combined transport and for improved accessibility of remote Alpine areas including on-demand services). In order to support an Alpine identity, a focus should be placed on innovation based on typical Alpine assets.
Type of activity	Setting up and monitoring of platform, annual call for ideas
Expected role of Organs of the AC to be involved	Initiator and chairing institution
Activity led by	Alpine Town of the Year or Alliance in the Alps
Suggested part of a future mandate?	Yes, embedded in more comprehensive strategy
Participants	Relevant thematic working bodies of the Alpine Convention, experts on innovation
Local / transnational	Transnational campaign with impact on the local level
Target group	Citizens, multipliers on the local level
Expected results	Improved respect and support for local people (entrepreneurs, civil society, etc.) with new ideas, smoother support of these people in developing their ideas
Starting date	2020 (starting one year after the campaign to change mind-sets)
Duration	4 years
Recommended cooperation with	EUSALP AG 1, 2 and 5, 6 and 7

Table 9: Action 2.2: Support of innovative ideas in the Alpine region.

Action 2.3	Support of green Alpine business & innovation clusters
Description	An analysis of the existing green business clusters in the Alpine region should be carried out. Based on this, either a new Alpine-wide economic business cluster or a tactically- engineered network of existing clusters could be implemented. The Alpine Convention will be able to introduce knowledge and values into these clusters while being in direct contact with businesses.
	The clusters are envisaged to function as market places for innovations, bringing together relevant stakeholders/ partners and solving intellectual property right problems.
	The aim of the action is also to take into consideration the specific nature of disruptive ideas. While they are usually developed in a scattered way, they should be aggregated, pooled and brokered. In an open innovation approach, ideas should be collected on the local level and communicated to researchers and investors (see action field „greening finance"). Local inventors should participate in the further development of their ideas with additional skills and capacities from partners. The disruptive innovations can be oriented toward regional or even wider markets.
	A transformation/ evolution of existing clusters can also be a suitable option. Regions could help individual and grouped SMEs to go global (or beyond local boundaries at any rate).
Type of activity	Organisation and marketing of clusters; creation, maintenance and monitoring of platform
Expected role of Organs of the AC to be involved	Initiator and host of platform
Activity led by	Business institutions tbd
Suggested part of a future mandate?	Yes
Participants	Relevant thematic working bodies of the Alpine Convention, business actors, financing actors
Local / transnational	Transnational platform of innovations at all levels
Target group	Citizens, business
Expected results	Creation of networking and synergies for boosting innovation to realisation
Starting date	2020 (starting one year after the campaign to change mind-sets)
Duration	continuous
Recommended cooperation with	EUSALP AG 1, 2 and 5

Table 10: Action 2.3: Support of green Alpine business & innovation clusters.

Action 2.4	Encourage a constructive environment for green innovation on the company level
Description	Ideas for innovation in companies often come from insiders, especially employees, who have an intimate knowledge of the underlying processes. To tap this potential for eco-innovation, both executive staff and employees should have an open mind for innovative ideas emerging within companies. To achieve this, an exchange platform for executive staff and employees could be established with insights on how to make executive staff and employees more sensitive to these opportunities and spread their knowledge across the boundaries of their own company (e.g. using the existing clusters).
	This would also encourage people that are open to take on the responsibility for green initiatives, such as the implementation of environmental management systems The action could be structured as follows:
	- Flyers & online information campaign regarding benefits for businesses etc. to encourage these kinds of activities
	- Granting these "innovators" access to an Alpine wide online platform where ideas and approaches are traded and exchange is possible.
	The action is designed, in a broad way, to allow for adaptation with regards to local implications, country framework conditions or available funding.
Type of activity	Campaign and setup & maintenance/ moderation of IT-platform
Expected role of Organs of the AC to be involved	Initiator and host of platform
Activity led by	CIPRA in cooperation with a partner in the field of business associations
Suggested part of a future mandate?	Yes, embedded in a more general strategy
Participants	Multipliers, such as municipalities and business associations
Local / transnational	Transnational with outreach to businesses
Target group	All businesses in the Alpine region
Expected results	Better awareness and respect for the innovative and engaged people with "green ideas" in companies through their managing directors; Improved access to knowledge on implementation pathways
Starting date	Anytime within the next 4 years
Duration	1 year for flyer campaign Continuous maintenance of platform (might be a merged offer within Alpine Space platform)
Recommended cooperation with	Networks of businesses, EUSALP AG 1

Table 11: Action 2.4: Encourage a constructive environment for green innovation on the company level.

Action 2.5	Supporting the Alps as a green climate-neutral trademark
Description	This action can comprise a multitude of different activities in different sectors and is based on previous initiatives. In order to start action constructively, it is proposed to initiate the pathway towards a green, climate-neutral label with three sub-actions: - In an overarching initiative, the recommendation to define the requirements of mountain farming products in order to use the label "mountain" should be supported´. In order to prepare for a comprehensive understanding or possibly a future label, existing trademarks in the Alps and comparative examples have to be analysed. A general concept should be explored and developed using a participative approach. An added value of the mountain label can be achieved only when sustainability aspects are deeply embedded in the concept. - Also, this action could include activities directed toward climate protection and energy efficiency in the hotel and restaurant sectors (e.g. as a follow up of the ClimateHost competition). - Also, a sound market analysis should be carried out. Specifically, the CO_2-footprint of services and products should command a heavy weight in an indicator system for a green trademark.
Type of activity	Explorative study, stakeholder workshops, subcontract, exemplary pilot actions
Expected role of Organs of the AC to be involved	Implementer
Activity led by	Team of ACB and further relevant thematic working bodies of the Alpine Convention to represent the multi-dimensional character of the action
Suggested part of a future mandate?	Yes
Participants	Relevant thematic working bodies of the Alpine Convention, stakeholders and experts in a participative approach
Local / transnational	Transnational
Target group	Alpine citizens as source of identification with green values Visitors, temporary residents and investors in or outside the Alpine region
Expected results	Improved recognition and image of the Alps as a region with a specific green profile
Starting date	Anytime within the next 4 years
Duration	1 year
Recommended cooperation with	EUSALP AG 1

Table 12: Action 2.5: Supporting the Alps as a green, climate-neutral trademark.

Action 2.6	Sustainable digitalisation in rural areas
Description	In order to bridge regional disparities, good ideas for the rural area are crucial, for example in the field of digitalisation.
	The target businesses of this action are businesses in rural areas that are represented in large public networks. Here, a co-ordinated digitalisation activity could take place. This initiative would reach all registered businesses and thereby innovate them.
	As a starting point, the focus will be laid on digitalisation in the dairy sector. Here, about 80,000 farms in the Alpine region are members of the so called "milk recording organisations". In a recently approved co-ordinated project initiative, these farms will be subject to a sustainable sensor-based digitalisation that will help them to better monitor their animals and to contribute to increased animal health and welfare.
Type of activity	Co-ordinated and exemplary implementation of an innovation for many rural farms.
Expected role of Organs of the AC to be involved	Chair of the initiative
Activity led by	Milk recording association of Baden-Württemberg in co-operation with EUSALP AG 2
Suggested part of a future mandate?	Yes, embedded in more comprehensive strategy
Participants	Experts on Digitalisation
	Other partners in the Alpine Region
Local / transnational	Transnational campaign with impact on the local level
Target group	Farm in rural areas
Expected results	Improved innovation level and animal welfare in rural dairy farms.
Starting date	Early 2019
Duration	3 years
Recommended cooperation with	EUSALP AG 1 and 2

Table 13: Action 2.6: Sustainable digitalisation in rural areas.

4.3 Greening regional development

4.3.1 Relevance and definition of the action field and compliance with the criteria

In the case of regional development, the statements on the definition of the action field and the relevance and compliance with the selected criteria are so closely connected that the two chapters have been merged.

As to a clear definition, interpretation of the term "regional development" differs. This might be caused by the fact that regional development represents a sub-discipline in multiple different scientific sectors (geography, spatial planning, economy and political science). In general, regional development strives to improve the socio-economic and environmental conditions within regions. Regional development relates to various sectors and, for the purposes of the GEAP, can easily become a diffuse area of action. The integral nature of this topic calls for cross-sectoral and cooperative approaches. The topic touches on many aspects that are relevant for an Alpine green economy. The key to this action field is viewing these topics with a more integrated and regional perspective. This opens up opportunities for new connections and developments, e.g. between and for urban and rural areas, and for ensuring the goods and services for daily life of the inhabitants in Alpine (remote) areas (see list of potential instruments below).

Regional development is a duty for municipalities and regions. For a successful greening of regional development, strong cooperation with citizens and businesses is needed. Cooperation at the Alps wide level can provide ideas and exchange on best practices and well-functioning networks. Cities, rural municipalities and regional governments, if their approaches are aggregated and pooled on an Alpine wide level, have the potential to project a strong voice and significantly shape regional and local development policies (e.g. Covenant of Mayors[2], Alpine Pearls[3], Alliance in the Alps[4]). These processes of influencing and shaping the right timing and the right messages are the subject of this action field. A wide range of institutions deal with regional development and participate in its governance. Most of the sectoral ministries and agencies influence regional development processes in some way. In order to limit the action field to institutions that are aligned with the selection principles for the GEAP (chapter 2), we have chosen to concentrate on the role and empowerment of three groups of institutions:

- Alpine cities as promoters, drivers, hubs, exchange platforms and networkers of green economy, including the formulation of political messages

- Rural villages and municipalities with their challenge to ensure accessibility, quality of life in line with a green economy, e.g. environmentally friendly tourism in natural areas to create regional value chains or to connect themselves to wider value chains

- Regional governments coordinating the activities of cities and municipalities, trying to create synergies, to mediate conflicts and to find mechanisms or incentives in order to balance advantages and disadvantages between municipalities or parts of a region.

The action field overlaps strongly with the action field "Living and working in a green economy". Similar to the demarcation of other action fields, the differentiation is made according to the perspective. Here, actions should enable and encourage drivers of regional development and their ability to influence and shape regional strategies. The action field "Living and working in a green economy" takes the perspective of the consumers and employees and strives to enable them to "act green".

Regional development is also a reference framework that allows initiation, observation, planning and monitoring of a green economy at the local level from a regional perspective. By providing input to regional development stakeholders, the action field is also relevant to sectoral regional policies such as transport, tourism and spatial planning.

The following list encompasses the range of possible topics from which the proposed actions have been derived:

- Alpine cities as drivers, hubs, networkers, exchange platforms and promoters of a green economy

- Ensuring accessibility for economic activities for remote areas in natural environments

- Better urban-rural relationships for greener regional approaches

- Meeting the needs of rural or remote areas for goods and services of daily life

- Creating attractive villages and sites for inhabitants and for tourists.

---

[2] Further information: https://www.covenantofmayors.eu/.
[3] Further information: https://www.alpine-pearls.com/.
[4] Further information: https://alpenallianz.org/en/about-us.

4.3.2 Proposed actions of action field "Greening regional development"

Action 3.1	Support the further development of the Alpine Partnership for Local Climate Action
Description	Cities and municipalities have typical challenges to tackle, often focused on the prevention and counteracting of environmental developments that are unhealthy for their citizens (e.g. urban climate, pollution, lack of green areas).
	The focus of challenges lies on transport, public transportation, solving mobility problems for commuters, challenges in bike & pedestrian mobility, green and blue spaces, and spatial planning.
	In line with existing campaigns and networks, Alpine networks should be encouraged to further develop their functions as
	- active promoters of green economic solutions
	- brokers of solutions, which means that there will be a corresponding activity that brings together comparable problems and needs with possible solutions found in other parts of the Alpine region.
Type of activity	Support the network of the Alpine cities, municipalities and local actors
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Alpine Partnership for Local Climate Action
Suggested part of a future mandate?	Tbd
Participants	Urban networks encompassing also the Alpine region, e.g. EUROCITIES
Local / transnational	Transnational network of local activities
Target group	Cities and municipalities
Expected results	Faster and better endorsed identification and implementation of promising solutions
Starting date	2019
Duration	Continuous
Recommended cooperation with	Networks such as EUROCITIES

Table 14: Action 3.1: Support the further development of the Alpine Partnership for Local Climate Action.

Action 3.2	Collection of green ideas and provision of proactive on-the-spot information events in rural areas
Description	Rural regions often have specific barriers that are different from those of Alpine cities when it comes to implementing green economic ideas. And, they have specific solutions. Here, on-site information events can help to raise awareness and develop, transfer or exchange green economy solutions.
	Provision of direct information on the spot has a good chance of being well perceived by citizens and local stakeholders.
	There are diverse pre-existing initiatives regarding this topic, but they have not been well collated. Thus this activity should additionally focus on the comparison of alternative solutions addressing a problem (e.g. of accessibility) and aim to assure efficiency and feasibility as driving criteria for policy making. Avoiding duplication of mobility projects already in place/ ongoing is essential, but some pre-existing approaches could be suitable sources of data and information for implementing the action.
	As an example, the Alpine area is especially well-suited for the smart village's concept, including various soft mobility ideas. One example would be smart school buses and public transport specially designed for the needs in rural areas and many other approaches exist. These will be pooled and disseminated and also promoted in direct events.
	The activity is structured as follows:
	1. Short collection of existing best practices
	2. Design of a blueprint for a local event
	3. Implementation of regular local events
	As an example for activity, AG 4 is currently cooperating with AG 5 in the Alpine Region Preparatory Action Fund (ARPAF) project CrossBorder. The described action could lead to a follow-up project of CrossBorder.
Type of activity	Short desk research/ study; local events
Expected role of Organs of the AC to be involved	Initiator
Activity led by	CIPRA
Suggested part of a future mandate?	Yes, embedded in a more comprehensive strand
Participants	Experts and speakers to moderate and talk on local level
Local / transnational	Local activities, coordinated on the transnational level
Target group	Remote areas
Expected results	Faster introduction, implementation of custom-fit green solutions
Starting date	Anytime in the next 4 years
Duration	3 years
Recommended cooperation with	EUSALP AG 4 and 5

Table 15: Action 3.2: Collection of green ideas and provision of proactive on-the-spot information events in rural areas.

Action 3.3	Co-operative green solutions for green urban-rural relationships

Description	Remote areas are often strongly connected to urban areas through various economic relationships. Greening these relationships is frequently beneficial for both sides. A range of topics can be identified that has a vast potential for improved "greening", with transport and tourism as well as joint sustainable spatial planning amongst the most prominent ones. Furthermore, mutual benefits can be generated through sustainable, low-carbon value chains in the field of energy and food supply as well as by tapping the potential of digitalisation for these relationships.
	
	Also, the relationships between the metropolises surrounding the Alps and the mountainous Alpine regions should be taken into account. In addition, a stronger focus should be honed on the identification of more general "transformation pathways" for climate change mitigation and adaptation, and means of tackling a change process on the regional level should be developed and disseminated. The action could encompass the following activities:
	
	    1. Identification, pooling, promotion and transfer of solutions,
	
	    2. Symposia as well as other events
	
	    3. Communication of results
	
	The action has the potential to strengthen horizontal cooperation across the different EUSALP objectives/ AGs. As an example for action, AG 4 members (regions) could be contacted as gateways to municipalities and their relevant stakeholders.
	
	A special focus could be on market-based instruments (MBIs) and business solutions available for best management of these formerly unexplored relationships.

Type of activity	Compact analysis and communication: online and print promotion, Optional: Symposium with "Market of Ideas"
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Alpine Towns of the Year
Suggested part of a future mandate?	Yes
Participants	Alliance in the Alps, relevant thematic working bodies of the Alpine Convention
Local / transnational	Transnational approach with regional/ local impact
Target group	Municipalities, cities & regional representatives
Expected results	Closer more sustainable interconnection between urban and rural areas, raised awareness of mutual dependencies and potential sustainable benefits.
Starting date	Anytime in the next 4 years
Duration	1-2 years
Recommended cooperation with	ESPON, especially ESPON results Alps2050, EUSALP AG 5 and 4

Table 16: Action 3.3: Co-operative green solutions for green urban-rural relationships.

Action 3.4	Encourage the development of green economy pilot regions
Description	The idea for this action is based on the following recommendation of the sixth Report on the State of the Alps "Greening the Economy in the Alpine region": *The Green Economy approach should be integrated into regional strategies, e.g. by developing concepts for sustainable agriculture, forestry, energy, tourism, water management (in particular regarding to water scarcity) or transport.* Aim of the proposed action: Development of a project proposal for a common transnational project on green economy pilot regions. Moreover, a feasibility study could be implemented which entails the following tasks to support: - Selection and activation of interested regions and partners - Listing of possible sectoral regional concepts to work on - Implementation of regional workshops including the development of detailed specifications to realise a common project - Elaboration and coordination of a detailed concept for a common transnational project with scientific monitoring - Drafting a financing concept, including explanation of funding opportunities. A common transnational project with a transdisciplinary approach could be a tool to stimulate local and regional activities and enhanced Alpine-wide cooperation. The feasibility study will help develop the detailed concept for this project and will support applications for for necessary funding.
Type of activity	Expert meetings, stakeholder dialogues, feasibility study
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Alpine countries (Germany and Italy)
Suggested part of a future mandate?	Yes
Participants	Observers (e.g. Alpine Towns of the Year, Alliance in the Alps), cities and municipalities, stakeholders from science and business, existing initiatives on GE pilot regions in the Alps
Local / transnational	Transnational
Target group	Political decision-makers on local and regional level as well as representatives from businesses
Expected results	Establishment of a common transnational project on green economy pilot regions
Starting date	2019
Duration	1.5 years
Recommended cooperation with	EUSALP AG 1, AG 2, AG 6, AG 9

Table 17: Action 3.4: Encourage the development of green economy pilot regions.

Action 3.5	**Promote NZEB (Net Zero Energy Buildings) on the local and regional level**
Description	The action is based on the results of the "1st Alpine Building Conference" of 2016 and will connect suitable projects on the local and regional levels with adequate support mechanisms. Local and regional actors are often interested in promoting building activities, but in-depth knowledge is not available on this level.
	For this reason, the transnational Alpine Building conference shall be designed to promote match-making between promising NZEB-projects on the local level and existing and established support mechanisms regarding architecture, financing, and maintenance.
	A "buddy-system" could be set up in order to supply available knowledge on NZEB to new building planners.
	Furthermore, the action could act as a starting point for the development of a future transnational project.
Type of activity	Expert meetings, event, match-making
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Alpine Climate Board
Suggested part of a future mandate?	Yes, embedded in a wider strategy
Participants	Observers (e.g. CIPRA International, Alpine Towns of the Year, Alliance in the Alps), cities and municipalities, regional building authorities); ‚architects' network, construction labelling organisations, Constructive Alps awards
Local / transnational	Transnational, regional and local
Target group	Political decision-makers on the local and regional level as well as representatives from businesses
Expected results	Report
Starting date	2020
Duration	5 years (2 conferences with networking activities between events)
Recommended cooperation with	EUSALP AG 2

Table 18: Action 3.5: Promote NZEB (Net Zero Energy Buildings) on the local and regional level.

Action 3.6	Encouraging regional and local actors to achieve climate-friendly hotels and restaurants
Description	The action is anchored in the activities already successfully carried out (ClimaHost competition, international workshop and conference) with regards to motivation and encouragement for the gastronomy and accommodation branch to establish energy management and environmental management systems. For the GEAP, a specific focus will be placed on individual hotels and restaurants rather than chains. Here, the guiding criteria are sustainable value chains. The approach is to generate, through the award ceremonies and the prizes, a snow-ball effect among Alpine actors that own or manage hotels and restaurants.
Type of activity	Competition and award ceremonies based on analysis of the results of the first year may establish the basis for the award criteria. The activity is also closely connected to further useful modalities such as trainings, networking and/ or promotion.
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Alpine Climate Board
Suggested part of a future mandate?	Yes, embedded in a wider strategy
Participants	Observers (e.g. Alpine Towns of the Year, Alliance in the Alps), cities and municipalities, stakeholders from the sectors, responsible regional authorities
Local / transnational	Transnational, regional and local
Target group	Businesses in the restaurant and hotel sector
Expected results	Improvement of the overall representation by climate friendly restaurants and hotels in the Alps
Starting date	2019
Duration	5 years 1st year: Analysis, (2 award ceremonies with promotion activities between events)
Recommended cooperation with	EUSALP AG 2

Table 19: Action 3.6: Encouraging regional and local actors to achieve climate-friendly hotels and restaurants.

Action 3.7	**Local implementation of transnational agreements: Further development of the implementation of the Alpine Convention's tourism protocol within the network of mountaineering villages**
Description	This action is based on the joint activities of the Alpine Clubs. Based on the Alpine Convention's Tourism protocol, the network has been established, but further extension and in-depth activities on the local level are necessary. So far, 27 villages are part of this network, and a further extension towards an Alpine-wide multinational network is proposed. Furthermore, the list of services for tourists can be extended, and a more intensive promotion of this multinational tourism product will be pursued.
Type of activity	Networking and municipal pilot activities with Alpine wide model character
Expected role of Organs of the AC to be involved	Initiator
Activity led by	National Alpine Associations (ÖAV, DAV, AVS, CAI, PZS)
Suggested part of a future mandate?	Yes, embedded in a wider strategy
Participants	Observers (e.g. Alpine Towns of the Year, Alliance in the Alps), cities and municipalities, stakeholders from the sectors, responsible authorities)
Local / transnational	Transnational, regional and local
Target group	Municipalities in the networking activities, local businesses in the pilot activities
Expected results	Continuous extension and deepening of the network and its activities
Starting date	-
Duration	-
Recommended cooperation with	Continuous extension and deepening of the network and its activities

Table 20: Action 3.7: Local implementation of transnational agreements: Further development of the implementation of the Alpine Convention's tourism protocol within the network of mountaineering villages.

4.4 Valorising ecosystems and biodiversity

4.4.1 Relevance and definition of the action field and compliance with the criteria

This action field is the most cross-cutting one of all selected actions fields, and its unique profile results from the fact that it is a relatively new thematic field that has the potential to influence the behaviour of economic entrepreneurs, consumers and our lifestyle. The idea of integrating ecosystem services (ESS) into our daily routines became popular between the late 1990's and the early years of the new millennium. The EU anchored the term in its Biodiversity Strategy in 2011 (European Commission, 2011), thereby connecting it to the word "capital" and paving the way to an integrated approach on economic values and nature protection (see TEEB, 2010). The initiative on "The Economics of Ecosystems and Biodiversity" (TEEB) describes the approach in further country or thematic studies.[5]

The introduction of the concept of valorising ecosystems and their services within the different sectors of our society raises complex questions for a large variety of socio-economic settings. In the Alpine region, due to the scarcity of space suitable for human habitation, the vast amount of pristine nature and the aim of businesses to develop or take part in profitable value chains, the problem is specifically pressing. This region could, therefore, act as a pilot region in putting the paradigm into action.

The socio-economic context in typical Alpine economic sectors (food and agriculture, recreation and tourism, health, energy and water supply, wood industry, natural risk prevention) relies on specific knowledge of "their" ecosystem services in order to consider them in their business models and value chains and convince stakeholders to value them. However, while the general principles are clear, more specific knowledge is still needed for stakeholders in different economic sectors. The action field will, therefore, consider the relevance of knowledge production.

Based on this, the action field has an input-function pertinent to other action fields and has the potential to upgrade the quality of actions in the other action fields. A close cooperation will be established with the action field "Greening finance and the financial support structures", where new ways of a more ESS-based financial assessment of value chains will be discussed.

The relevance of the action field "Valorising ecosystems and biodiversity" is clearly illustrated by the obvious knowledge gaps in many issues, especially related to the implementation on the local and regional level:

-   Process-orientation: How can we create economic value chains that are anchored in the concept of ecosystem services?

-   Greening effects (Orientation towards local and regional solutions or economic impact): What exactly are convincing solutions "on the ground"?

-   Social benefits (People-orientation): Although the suitability of the approach is in general convincing, how can change agents in all economic fields be supported to realise their goal?

-   Economic benefits (Close-to-business): What kind of specific knowledge do SMEs on the local or regional level need to rapidly and smoothly implement the concept?

-   Start from the well-known: Which projects in the Alpine area have produced convincing results and tools (e.g. GreenConnect project of ALPARC or EU business@biodiversity conferences)?

The action field will concentrate on filling this knowledge gap and develop, apply and communicate knowledge related to practical aspects that affect the situation of economic actors. Here, the latter needs to be put in the centre of attention. The focus lies on the local and regional levels where people who represent "traditional" economic settings need to decide how to change their everyday behaviour without perceiving it as disadvantageous.

In order to achieve this, communication is a key issue. This affects the "communicative translation" of research results as well as of existing knowledge and experiences at the local and regional levels. The following list offers a range of possible topics from which the proposed actions have been derived:

-   Development and communication of specific knowledge for regional economic sectors where implementation takes place on the local and regional levels (food and agriculture, recreation and tourism, health, energy and water supply, wood industry, natural risk prevention);

-   Aggregating, pooling and communicating existing knowledge on the local and regional levels;

-   Supporting pilot projects in their interdisciplinary context;

-   Identifying stakeholders and offering stakeholder dialogues, participative action and joint solutions, especially in those fields where biodiversity issues can become an economic threat, e.g. with large carnivores or wetland management;

-   Informing and training of decision makers, entrepreneurs and consumers on the benefits of ecosystem services and biodiversity in economic sectors.

---

[5] Further information: http://www.teebweb.org/.

4.4.2 Proposed actions of action field "Valorising ecosystems and biodiversity"

Action 4.1	ESS knowledge hub
Description	The concept of ecosystem services (ESS) is comparatively new and still an emerging, cross-cutting issue. Much of the expertise is still located in academic institutions, and the application/ cooperation in/ with other social sectors is often still under development. This action aims at building a knowledge hub on ecosystem services relevant for the Alpine region with a specific focus on bridging the gap between the economic sector and application on the local and regional level. The activities are threefold: - Setting up the knowledge hub: Organising and evaluating knowledge: All relevant activities (existing and initiated by Alpine Convention) should be transparently assessed, pooled and monitored. - Aggregating, assessing, pooling and disseminating existing projects on applied ESS in an economic context and identifying further options for action: Here, it is especially relevant to strive for convincing evidence regarding problems on the local level (e.g. sustainable local approaches in unsustainable territorial context; business development in competition with unsustainable value chains). Also, the pooling of analyses of practices is included (e.g. Horizon 2020 project Esmeralda). A collection of best practices that focus on the challenges of set-up and implementation of ESS (lessons learned, actors involved, success factors, payment for ESS, etc.) should be aggregated. - Defining and calling for targeted research in specific economic fields: A targeted call for implementing more specific research on the application of ecosystem service approaches in particular economic fields should be launched. Explicit descriptions of research needs for practical input in the fields of ecosystem service-based value chains in the field of agriculture & food, wood industry, health & recreation, energy and water supply, tourism, natural risk prevention should be generated. A specific focus could be dedicated to governance and the relationship between ESS and policy instruments (e.g. taxes, regulations, voluntary actions).
Type of activity	Pooling of knowledge, including also checking of existing knowledge promotion of pilot and communication activities
Expected role of Organs of the AC to be involved	Initiator & host
Activity led by	PSAC
Suggested part of a future mandate?	Yes
Participants	Universities, business institutions, experts, relevant thematic working bodies of the Alpine Convention, participants of the AlpES project
Local / transnational	Transnational
Target group	Widespread, all levels
Expected results	Improved understanding of ESS from the viewpoint of the economy; improved cooperation with economic and financial sectors; improved business activity on the local level
Starting date	2019
Duration	Continuous
Recommended cooperation with	Applied research institutions, HORIZON2020, EUSALP AG 2, AG 7, AG 8

Table 21: Action 4.1: ESS knowledge hub.

Action 4.2	**Awareness raising on greener value chains in the field of forest management and biodiversity conservation**
Description	A series of workshops on the local and/ or regional level should be initiated that especially lays the focus (1) on adapting sustainable forest management to new threats like climate change, (2) on economic viability of value chains in the field of forest management and biodiversity conservation and (3) on increasing awareness for an accelerated forest conversion.
Type of activity	Workshop series on the local and/ or regional level
Expected role of Organs of the AC to be involved	Initiator and host
Activity led by	Alpine Climate Board and further relevant thematic working bodies of the Alpine Convention
Suggested part of a future mandate?	Yes
Participants	Stakeholders and experts
Local / transnational	Transnational concept with series of local implementations
Target group	Alpine municipalities and businesses
Expected results	Improved recognition and image of the Alps as a region with a specific green profile
Starting date	Anytime within the next 4 years
Duration	2 years (with follow-up activities)
Recommended cooperation with	EUSALP AG 2, AG 7 and 6

Table 22: Action 4.2: Awareness raising on greener value chains in the field of forest management and biodiversity conservation.

Action 4.3	Campaigns, dialogues and trainings on ESS in an economic context on the local level
Description	In order to put the ESS paradigm into practice, it needs to be proactively applied to existing settings where other decisions would usually be taken or other information is traded.
	The action should actively identify existing campaigns or projects and contribute evidence and facts to boost the application of ESS principles. The action, therefore, could have two sides: "campaigning" and "education". The activities could be manifold but always be proactive and compact through speeches, talks or short targeted studies for specific fields, flyers, etc.
	The knowledge developed through the other actions in this field should be actively provided to economic sectors where an overall regional compliance with ESS and biodiversity principles would put local businesses at risk, such as wetland conservation and large carnivore protection for local farmers or local dairy production. The action should actively foster stakeholder dialogues through the provision of prepared information.
	The action could also lead to assisting campaigns, e.g. on stakeholder dialogues for large carnivores or wetland management, with aggregated knowledge and good examples.
	For the different economic sectors, training concepts for businesses and multipliers should be developed that are specific and close-to-practice, and these should be distributed.
Type of activity	Overview of upcoming events or dialogues, compact elaboration of and applicable training concept for different sectors, production of communication material
Expected role of Organs of the AC to be involved	Initiator and host
Activity led by	Relevant thematic working body of the Alpine Convention
Suggested part of a future mandate?	Yes
Participants	WISO (Large Carnivores, Wild Ungulates and Society Platform) and further relevant thematic working bodies of the Alpine Convention, Alparc
Local / transnational	Transnational "radar" and contribution to local situation
Target group	Stakeholders in ESS relevant economic areas as well as the institutions that push sustainable development in these fields
Expected results	Increasing pool of applied knowledge and solutions on the local level; increased synergies on realisation of ESS value chains
Starting date	Anytime within the next 2 years
Duration	3-4 years
Recommended cooperation with	ESS relevant thematic networks (wide variety), EUSALP AG 7

Table 23: Action 4.3: Campaigns, dialogues and trainings on ESS in an economic context on the local level.

Action 4.4	Initiating, monitoring, evaluating and promoting pilot implementation on the local level
Description	The topic of ESS requires evidence of successful economic applications (such as projects like "Moorfutures" and Payment for Ecosystem Services (PES)) in order to generate a critical mass of impact.
	The action should push the identification and implementation of pilot applications that lead to new economic understanding.
	These pilots should be monitored, and the assessment should be chaired by experts from all sectors.
	In addition, a constant survey of good funding sources should be implemented, and a continuous pipeline of good projects should be developed.
	This action can be enriched through inclusion of available project results. It should consider the institutional context where the experiments/ tests take place and provide a few easily transferable schemes.
Type of activity	Support ESS business pilots
Expected role of Organs of the AC to be involved	Initiator and host
Activity led by	Team of observers with widespread interdisciplinary knowledge
Suggested part of a future mandate?	Yes, embedded in more general strategy
Participants	Experts from different sectors, WISO and further relevant thematic working bodies of the Alpine Convention, Alparc
Local / transnational	Transnational concept with series of local implementations
Target group	Municipalities and regions
Expected results	Increase of critical mass of successful examples and increased routine thinking of target group in the direction of ESS
Starting date	2020 (after start of Action on setting up the knowledge hub)
Duration	2-3 years
Recommended cooperation with	EUSALP AG 2

Table 24: Action 4.4: Initiating, monitoring, evaluating and promoting pilot implementation on the local level.

Action 4.5	Fostering and assessing business cases in the field of ecological connectivity
Description	The action targets the field of ecological connectivity, which can be defined as the extent (spatial and temporal) to which a species or population can move among landscape elements in a mosaic of habitats (Hilty et al, 2006). The action is based on a study funded by the German Federal Agency for Nature Conservation (BfN) called GreenConnect: The contribution of ecological connectivity measures to a Green Economy in the Alpine region (2015-2018). It analyses the potential of a variety of measures that foster biodiversity conservation and at the same time create new environmentally friendly business opportunities. The measures include activities in agriculture, forestry, water management, tourism that reflect the potential and cross-sectoral character of biodiversity conservation measures for greening the economy.
	As a further step, concrete business cases will be fostered, carefully assessed for practicability, economic viability and sustainability criteria and promoted. In order to identify relevant business cases, a public call for innovative examples will be launched. References and contents should also be conveyed to some relatively new approaches in this field such as the corporate ecosystem valuation, the EU Business@Biodiversity initiative and the outcomes of some projects in the field.
Type of activity	Support ESS business pilots
Expected role of Organs of the AC to be involved	Initiator and host
Activity led by	Relevant thematic working body of the Alpine Convention
Suggested part of a future mandate?	Yes, embedded in more general strategy
Participants	Team of observers with widespread interdisciplinary knowledge; experts from different sectors, others (e.g. CIPRA, Alparc, BfN, Project Team of the GreenConnectProject); relevant thematic working bodies of the Alpine Convention
Local / transnational	Transnational coordination, local implementation
Target group	Regions. Pilot Regions for Ecological Connectivity of the Alpine Convention
Expected results	Increase of critical mass of successful examples and increased routine thinking of target group in the direction of ESS
Starting date	2020 (after start of knowledge hub)
Duration	2-3 years
Recommended cooperation with	EUSALP AG 2 and AG 7

Table 25: Action 4.5: Fostering and assessing business cases in the field of ecological connectivity.

Action 4.6	Reducing Alpine natural hazards through ecosystem-service-based forest management
Description	Sustainable Alpine forest management has a vast potential to prevent or mitigate natural hazards such as landslides, erosion, and floods. In order to develop an ecosystem based (instead of a damage removal) approach in this field, the Interreg Alpine Space Programme has approved the project "GreenRiskForAlps – Development of ecosystem-based risk governance concepts with respect to natural hazards and climate impacts – from ecosystem-based solutions to integrated risk assessment"[6] in 2018, which will be implemented by an Alpine-wide partnership.
	This action should focus on establishing a fruitful and close exchange with the above project through derivation of concrete economic scenarios for Alpine pilot regions. The activity should support an accelerated conversion of mountain forests to multifunctionally managed close-to-nature forests (see ACB target system).
Type of activity	Development and assessment of concrete scenarios
Expected role of Organs of the AC to be involved	Initiator and host
Activity led by	IRSTEA (National Mountain Forest Research Institute in France)
Suggested part of a future mandate?	Yes, embedded in a broader strategy
Participants	Universities, business institutions, experts, relevant thematic working body of the Alpine Convention
Local / transnational	Transnational
Target group	Local and regional authorities
Expected results	Concrete economic and financial assessment of the cost-reduction potential of sustainable, ecosystem-based forest management for disaster prevention
Starting date	2020
Duration	3 years
Recommended cooperation with	EUSALP AG 6, 7 and 8

Table 26: Action 4.6.: Reducing Alpine natural hazards through ecosystem-service-based forest management.

---

[6] Further information: http://www.alpine-space.eu/project-results/project-overview/approved-projects/.

4.5 Living and working in a green economy

4.5.1 Relevance of the action field and compliance with the criteria

While all citizens are "local people somewhere", the choices they make have impacts on the local and regional levels. For example, if products are bought from value chains that are inexpensive but have a huge ecological footprint and significant external costs, this will harm the profitability of alternative regional products. If restaurant or hotel chains command more of the market than local providers who work individually, the benefits may not be reinvested in the region but often elsewhere.

Although most people think that sustainability is important, their daily choices might not always adhere to green theories and principles. They might choose unsustainable products or use unsustainable services. However, green economy does not mean forcing consumers to buy local products and services, but rather green economy aims to create win-win situations by promoting regional goods and services, thus strengthening the local or regional demand. Beyond concrete actions, the GEAP intends to provide sound information on the benefits and opportunities of a green economy to the Alpine population. Nevertheless, the effect of unsustainable consumer decisions remains considerable and represents a real barrier to accelerating development of an overall green economy.

However, people can change their minds, if certain preconditions are fulfilled:

- Sustainable products and services should be branded with a positive image;

- People should have learned about a green economy in school and at university;

- Role models like mayors or company directors should act green;

- Access to green products and services should be convenient;

- Prices must tell the ecological truth and consider the ecological footprint by internalisation of external costs;

- People should be informed regularly and in an easily-accessible way about green opportunities;

- A commonly and fully accepted sustainable lifestyle may lead to a certain peer-pressure and, therefore, could impact the overall consumer behaviour of the society.

Fulfilling the pre-conditions requires cooperation between politics, private companies and the educational sector. The aim of this action field is to bring green offers closer to the people and facilitate green choices through information and training. Here, the development of a digital society plays a relevant role.

4.5.2 Definition of the action field

In order to make a green economy a reality, civil society must participate. Therefore, the present action field offers an alternative perspective: Instead of thinking along with the providers of products and services or framework setting institutions, this action field focuses on the side of the "recipients": people who seek job opportunities, employees in companies or public institutions or private people who are not aware of the relevance of their consumer behaviour for the market orientation of businesses. The action field strives to enable and encourage those consumers and employees to "act green" and understand where an individual choice represents a decision between sustainable and unsustainable behaviour.

Two examples may illustrate the consequences of sustainable consumer decisions:

- The choice of food products (e.g. fruits and vegetables) coming from far away countries and outside the typical season for them causes high external environmental costs from transport, cooling, packaging etc. Buying local or regional food products avoids most of these costs and helps to generate local value chains.

- Consumers can contribute to reduce resource wasting practices, e.g. by deciding to buy unpackaged or less-packaged goods.

The consumer perspective has great relevance for other action fields. For example, the topic "health" is dealt with in the action fields on "valorising ecosystems and biodiversity" and "eco-innovation" as it addresses primarily the providers' side.

4.5.3 Proposed actions of the action field "Living and working in a green economy"

Action 5.1	Make green choices easier on the local level
Description	Greening private consumption is a powerful instrument with significant impact. However, changing consumption patterns is a challenging and incremental activity. This action offers a threefold action to steer local citizens towards green consumption patterns. The activity is structured as follows: - Overview on green offers: Green offers are often scattered and consumers have to actively search for the right product or service. It is preferable to present offers in an aggregated way, either physically or virtually. - Encourage local shops to showcase and promote green regional (Alpine) products (based on an agreed definition of „green") - Specific attention should be paid to urban-rural relationships, e.g. food offers from the surroundings. Via a digital platform for offers and services and print flyers, an overview on green offers and services for municipalities, businesses and private consumers can be provided. If needed, these issues could also be addressed at a higher level. However, it is essential to look for synergies with other green marketing initiatives.
Type of activity	Information campaign
Expected role of Organs of the AC to be involved	Initiator
Activity led by	CIPRA or other observers
Suggested part of a future mandate?	Yes, embedded in more general strategy
Participants	Observers (e.g. Alpine Towns of the Year, Alliance in the Alps)
Local / transnational	Transnational campaign to set up local overview
Target group	Citizens
Expected results	Improved consumption of green products through a better connection of offer and demand on the local level
Starting date	Anytime in the next 4 years
Duration	Continuous, developing platform
Recommended cooperation with	Cities and municipalities as multipliers, EUSALP AG 2

Table 27: Action 5.1: Make green choices easier on the local level.

Action 5.2	Promoting and analysing green job offers
Description	The promotion of green job profiles is meant to inform and encourage people who are interested but do not have an overview or continuous access to information. The action is twofold: - A fair for green jobs should be developed and held in a rotating system, e.g. in the „Alpine Town of the Year". - A map of green job offers could be developed to generate a better overview and to promote regions with an especially green profile. Furthermore, the actual content of "green jobs" needs to be analysed in greater depth due to the structure of job/ green job markets in the Alpine region and beyond.
Type of activity	Information campaign & study
Expected role of Organs of the AC to be involved	Initiator and chair
Activity led by	Organisation that is close to job searches
Suggested part of a future mandate?	Yes, because the cooperation with the lead organisation is relevant and needs to be defined
Participants	Tbd
Local / transnational	Transnational with regional focus
Target group	Job searching citizens, multipliers
Expected results	Increase of share of people who decided to take a green job
Starting date	Anytime in the next 4 years, in compliance with current job offer market
Duration	Continuous
Recommended cooperation with	EUSALP AG 3

Table 28: Action 5.2.: Promoting and analysing green job offers.

Action 5.3	Promoting green job profiles and increasing "green" professional competences
Description	Information on green job profiles and "green" professional competences have to be presented when people make their decisions. The action has three elements:
	- Explaining the benefits for businesses and municipalities as being part of a societal transition: Here the relevance of examples to push transitional development will be emphasised. Specific good examples (stories) of how mind-sets from "colleagues" have been changed and how "green" professional competences made a difference on the local level should be actively collected and information prepared for target groups: Company leaders, mayors, and heads of business associations.
	- Brochure (online and print) to be distributed especially in universities or at the end of a school year and made available to businesses. The information, which many young people as well as job counsellors or career advisers may not be aware of, should be delivered where green job profiles / "green" professional competences have developed within recent years. Furthermore, good practices are explained.
	- Guiding brochure on mainstreaming professional training on "green" competences and education to be made available to educational and business actors.
Type of activity	Aggregating and promoting green job profiles
Expected role of Organs of the AC to be involved	Initiator and Implementer
Activity led by	New partner to be defined in the field of business associations
Suggested part of a future mandate?	Yes, but embedded in a more general strategy
Participants	Observers and multipliers
Local / transnational	Transnational with regional focus
Target group	Job searching citizens, multipliers, private companies
Expected results	Increase of share of people who decided to take a green job
Starting date	Anytime in the next 4 years, in compliance with current job offer market
Duration	Continuous
Recommended cooperation with	EUSALP AG 3

Table 29: Action 5.3.: Promoting green job profiles and increasing "green" professional competences.

Action 5.4	Exploring the consumer view on an Alpine green trademark
Description	This action is small and contributes to the other action on "Alpine trademark": Here, a criteria list from the viewpoint of the consumer side should be developed through a survey and added to the Alpine trademark for agriculture products (concept described under the action field „eco- innovation"). Specific areas to be addressed include the definition, consumption pattern and routines as well as the specific character of "mountain products"
Type of activity	Survey and consultation phase
Expected role of Organs of the AC to be involved	Initiator
Activity led by	CIPRA
Suggested part of a future mandate?	No
Participants	Relevant thematic working bodies of the Alpine Convention and other actors involved
Local / transnational	Transnational
Target group	Citizens of the Alpine region
Expected results	Better view on expectations of consumers and identification with a possible "Alpine trademark"
Starting date	Anytime, connected with other action
Duration	3 months
Recommended cooperation with	EUSALP AG 2

Table 30: Action 5.4.: Exploring the consumer view on an Alpine green trademark.

Action 5.5	Promotion of ecologically sustainable cooperative purchasing groups
Description	This small action highlights a specific aspect of consumer behaviour: pathways towards identifying the needs, laying the groundwork, implementing the design and showcasing the benefits of cooperative purchasing groups. This is relevant in order to bundle consumer wishes and generate more sustainable buying power.
	A brochure should be developed and provided to municipalities and cities for further distribution. The brochure can be inspired by existing examples.
	National experts could cooperate by providing some case studies or good practices available at the national level.
Type of activity	Compact desk research, development of brochure
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Observer
Suggested part of a future mandate?	Tbd
Participants	Observers (e.g. Alpine Towns of the Year, Alliance in the Alps)
Local / transnational	Transnational with local examples
Target group	Citizens, distributed through municipalities and cities as multipliers
Expected results	Better view Increased buying power for green products on the local level expectations of consumers and identification with a possible "Alpine trademark"
Starting date	2019
Duration	6 months
Recommended cooperation with	tbd

Table 31: Action 5.5.: Promotion of ecologically sustainable cooperative purchasing groups.

Action 5.6	**Changing minds in work and life for cooperative green approaches through concrete instruments**
Description	Societal transformation requires the changing of mind-sets on the local level. It is, therefore, crucial that people who are willing to embrace new habits are supported and acknowledged by their peers and supervisors. The present action organises a wide variety of actions to put role models in the spotlight. A series of workshops should be held, and a brochure should summarise the results. The workshop should include the following exemplary elements: - Petitions and initiatives from employees: Employees who wish to improve company or the administration's compliance with GE principles should be encouraged with step-by-step guidance. An example could be the brochure „greening your office". - Stimulating organic self-production of food: Encouraging joint activities such as urban gardening. These can contribute to a change in awareness and mind-sets but at the same time generate green products on the local level. For successful initiatives, cities and towns need to cooperate with their citizens and provide assistance.
Type of activity	Series of workshops and brochure
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Observer (e.g. CIPRA)
Suggested part of a future mandate?	Yes, but embedded in a more general strategy
Participants	Pilot communities & businesses, Alpine Town of the Year, Alliance for the Alps
Local / transnational	Transnational compilation of local events
Target group	Cities, municipalities and businesses as multipliers, citizens
Expected results	Increased recognition of the benefits that come from change agents/frontrunners of green ideas
Starting date	Anytime within the next 4 years
Duration	2-3 years
Recommended cooperation with	tbd

Table 32: Action 5.6.: Changing minds in work and life for cooperative green approaches through concrete instruments.

Action 5.7	**Promotion campaign highlighting role models and good practices on the local level for a greener life & work**
Description	Societal transformation requires the changing of mind-sets on the local level and looking at economic processes from the consumer side. It is, therefore, crucial that people who are willing to embrace new habits are supported and acknowledged by their peers and supervisors. The present action organises a wide variety of steps to put role models in the spotlight. These actions should include the following elements:
	- Role model campaign: Mayors should be encouraged to act as role models. For this purpose, a digital platform will be developed in order to interactively express why someone is a „green role model".
	- Endorsing and promoting the „Special Green City Prize": In general, this action stands for the fact that many Observers of the Alpine Convention already have interesting tools to promote green economy. These initiatives should be promoted.
	- Promote and communicate food sharing initiatives and the use of unconventional agricultural products:
	- Promote and communicate repair-mind-sets on the local level, such as Repair-Cafés/ Internet trade for old construction elements; Collection and promotion of successful local and regional initiatives.
Type of activity	Series of workshops, campaigns and brochure, organisation of a special green prize
Expected role of Organs of the AC to be involved	Initiator
Activity led by	Observer "Alpine Town of the Year" or Alliance for the Alps
Suggested part of a future mandate?	Yes
Participants	Pilot communities & businesses
Source of (financial) resources	tbd
Local / transnational	Transnational compilation of local events
Target group	Cities and municipalities as multipliers, citizens
Expected Results	Increased recognition of the benefits that come from change agents/ frontrunners of green ideas
Starting date	Anytime within the next 4 years
Duration	2-3 years
Recommended cooperation with	tbd

Table 33: Action 5.7.: Promotion campaign highlighting role models and good practices on the local level for a greener life & work.

4.6 Digital society as a cross-cutting challenge

Digitalisation will completely transform our society. As digitalisation will and does influence every area of our life, it must be a major and hence cross-cutting part of the GEAP approach, and the existing Alpine Digital Agenda should be taken into consideration at every step of the GEAPs implementation (see Alpine Convention, 2014). The Berlin Social Science Center describes digitalisation as "one of the most pressing challenges of our time. The future of societal and political participation, economic prosperity and good work depend on how we make sense of digital technologies and the internet. With the erosion of established hierarchies and orders, both new problems and options have emerged. Understanding the ongoing digital transformation is key to ensure democracy and societal self-determination." (WZB, 2018).

The topic of digitalisation is of utmost relevance to all stakeholder groups and regions (both urban and rural). Although digital transformation will revolutionise the way we work, travel, live and communicate, the topic is often dealt with in a rather infrastructural or software-related way. However, this is only the basic condition for accessing the digital society. Based on this, it is crucial to shape the digital world by developing products, services and offers that are in compliance with a green economy. Digitalisation will make our lives easier in many ways but will often predominanty contribute to more comfort for the individual rather than to green effects (e.g. online shopping & logistics).

On the one hand, it is crucial to appreciate and utilise the positive contribution that digitalisation can provide for a green economy. For the action field "Greening regional development", these contributions might include:

- accessibility of remote areas,
- smart provision of public services (intelligent street lightning or heating),
- facilitating communication, connection and agreements between people,
- green smart city solutions,
- provision of knowledge and education,
- fostering of a transnational awareness through improved accessibility to information.

On the other hand, it is relevant to prevent undesired effects of digitalisation such as:

- the negative environmental impacts of increasing energy consumption,
- resource consumption and electronic waste (due to a decrease in recyclability) or
- the isolation of people that are technically or with regards to their education not skilled or willing to take part in digital processes.

With regards to the way we work and cooperate, digitalisation has the potential to generate improvements by support of eco-innovations e.g. in the following fields:

- Improving access to job offers, skill training and education;
- Highlighting role models in the entire Alpine region to raise awareness;
- Implementing collaborative economy and sharing economy.

5. The Alpine Convention's options to boost the transformation process with a long-term view

As already stated, the Alpine Convention is a legal framework for the protection and sustainable development of the Alps. Its institutional setting was not devised to implement policy goals. Thanks to its structure and its networks, the Alpine Convention can support the implementation of the GEAP on different administrative levels to foster the transformation towards an Alpine green economy 2030. However, in order to reach the concrete implementation of measures, the impetus and the active involvement of the contracting parties and the observers is needed. As an example, action 4.5. (Fostering and assessing business cases in the field of ecological connectivity) might demonstrate how the Alpine Convention could act simultaneously as a political umbrella (as a catalyst for transnational cooperative work within the working bodies) and as an initiator of new projects that further support the overall goal of establishing ecological connectivity in the Alpine space: The action is rooted in a national (German) project, which will now be taken up on a transnational level. Based on this, a strengthening of the political will (on the national and transnational level) could be achieved as could the initiation of further, more targeted funding projects under transnational (e.g. Interreg Alpine Space 2021-2027) or regional and national funding programmes.

Underpinned by the RSA6, the Alpine Convention provides a vast and peer-reviewed collection of information and recommendations suggesting how the transformation can be tackled and what single players can contribute to the process.

The set of instruments presented in this chapter reflects the competences of the Alpine Convention. The objective is to select those instruments that are able to create a lasting positive atmosphere for greening activities in the Alpine economies and societies and to create a direct and regular exchange amongst all relevant stakeholders in the Alpine region, particularly from businesses, municipalities and towns, science and research, administration authorities and the civil society.

The potential instruments described in more detail below are illustrated by some examples from the different action fields. Since the Alpine Convention and EUSALP support a sustainable economic concept and consider the Alps a model region for experiencing this transformation process, this significant opportunity should not be missed. If forces are joined, it may be possible to take one considerable step further towards the vision and the realisation of an Alpine green economy 2030 (cp. Chapter 1.5).

5.1 Play the "policy card"

The selection of the topic of "green economy" was a joint decision taken by the XIIIth Alpine Conference in Torino, when the elaboration of the RSA6 on "Greening the Economy in the Alpine region" was called for. Most of the Alpine countries have since then been discussing or have published national strategies for greening the economy with a different focus for each country. Additionally, the political discussion on a green economy has made a considerable step forward because of the competition for financial resources, the risks of climate change and the transgression of planetary (and local) environmental boundaries with its severe consequences for human health and welfare. The approach of the Alpine Convention has been, since its very beginning, holistic in character; its concrete objectives aim at conserving the pristine Alpine nature for future generations and at including the people living in the Alps in this process. As has already been analysed in more detail in the RSA6, this is the starting point for any political aspiration or vision of the GEAP.

Therefore, the Alpine Convention is in a position to formulate political messages to the different policy makers, and it can emphasise and insist on quality standards for economic behaviour in the Alpine area. As an asset, it may point out that all Contracting Parties bear responsibility to preserve the huge amount of natural capital and ecosystem services provided by the Alps to all of Europe.

5.2 Governance, networking, and communication

The cross-cutting processes of governance, networking, and communication are able to support all defined action fields by organising their structures, facilitating exchange and cooperation, strengthening the quality of activities and by ensuring the distribution of knowledge and information on the ongoing activities related to the GEAP.

The Alpine governance structure follows a multi-level approach. As a consequence, many different players on different hierarchical levels are interlinked, and competencies are widely distributed depending on the type of policy and decision. In practice, this leads to the situation where every business, ministry, municipality, research institution or other type of player is (a) subject to existing and defined framework conditions and (b) determined by the geographical scope of its actions.

All players must, therefore, select their own set of appropriate measures for greening the economy and analyse their own options to contribute to and play an active role in local, regional or national implementation (e.g. by participating in or approving projects, by discussing role models for administration or other institutions in the overall process and by adapting things for the local mileu).

The existing Alpine business and stakeholder networks must be addressed, and active networking has to be promoted as an important instrument within the transformation process. This includes amongst others the exchange on desirable frame-

work conditions as well as the introduction and organisation of partners for cooperation (projects). It also involves activities for formulating policy statements/ recommendations and the need for fostering societal discussion of different business and cooperation models. Wherever possible, networking among economic change agents that are active in relevant business fields should be supported. Existing relationships have to be rethought and revised if needed be, e.g. those between urban and rural areas or by setting new goals for cooperation versus competition of businesses.

The quality of the activities leading to an Alpine green economy 2030 will increase, if stakeholder dialogues are carried out and their results are included in the overall transformation process. Information and training of decision makers in economic sectors may also contribute to safeguarding a high quality of the development process. Coordination of national and/ or regional strategies increases the quality of actions and of the overall process: a set of transformation actions becomes more synergistic, creates more impact and raises more attention than single measures.

The Alpine green economy 2030 relies on communication! The green economy concept should not remain pure theory, but it has to be accepted from the local to the international level as the preferred option to develop the economy in the Alpine region in the future. In order to achieve this, its main ideas and principles have to be communicated to all players. A communication concept and tailored measures for different target groups are presumed to considerably increase the potential of the green economy ideas. In particular, the local and regional levels must be addressed, as these two levels are considered to be key players in the transition process.

5.3 Establish a continuous learning process for the further development and definition of future green economy actions

The GEAP outlines a gradual transformation of the Alpine economy. This transformation shall be achieved through the implementation of the proposed actions and the evolution of further ambitious actions. These actions will be shared in a continuous learning process. In this process, all relevant stakeholders of the Alpine Convention should be involved. This process will be closely linked to the monitoring and evaluation process described in chapter 6.

In view of the limited resources of the Alpine Convention, which has to rely on the activities of the Alpine countries to concretely implement actions, the contracting parties should investigate and agree on general priorities for exchange and learning on all the aspects of an Alpine green economy. Setting the priorities should be in line with national policy preferences and follow the relevant national strategies of the individual countries and the EU.

5.4 Include selected actions in future mandates of the AC's working groups and platforms

A close link between the GEAP and the mandates of working groups and platforms of the Alpine Convention will help to boost its implementation. As for some of the working bodies, the potential links between the GEAP and their own mandates are not immediately obvious. So it is recommended to introduce the approach and structure of the GEAP to all working groups and platforms. This can be done by a consultation on the GEAP during their regular meetings or during a particular exchange meeting of chairs of platforms and working groups. This type of meeting would normally be organised by the Permanent Committee and the PSAC in order to increase the internal flow of information and of synergies between all Alpine Convention working groups and platforms.

In order to further raise the impact of the GEAP, an intensified cooperation with EUSALP Action Groups is recommended. A common session together with the EUSALP Action Groups may be organised, with the objectives of:

- Identifying all elements that can be integrated into the mandate or action plan of the respective group,

- Informing all important players about the GEAP and potential fields of intervention,

- Investigating fields of cooperation and developing joint actions, Reflecting common options for increasing the political impact of the topic of green economy.

Example: Several platforms of the Alpine Convention are close to economic topics, e.g. the platforms on mountain agriculture or on mountain forests. Most recently, the Platform on Ecological Connectivity assessed the options for green business in the sector of nature conservation and environmentally friendly tourism. The results of this study can be taken as a starting point for further and more concrete projects, steering these projects in a direction that is consistent with one or more goals according to the GEAP and which may be financially supported by individual Contracting Parties.

5.5 Stimulating funding for the GEAP

While one action field of the GEAP is specifically dedicated to greening financial mechanisms, the present chapter focuses on the options that are available to the Alpine Convention to trigger funding for the individual actions of the GEAP and to encourage national or regional unlocking of funds for the GEAP as whole.

Analogous examples, such as EUSALP or the Carpathian Convention, show that it is possible to generate strategic projects that support the GEAP as a whole, thereby mirroring the working structures or protocols in its actions.

In this sense, all Alpine countries have to decide how much they are going to invest into the transition of their economies to greener ones. The Alpine Convention can underline the need to

reflect on green economic behaviour within society and politics, to alternate business models and to adapt investment incentives to a "green" framework. These three points may represent the most direct factors that may be influenced by policy makers and for which the Alpine Convention can develop targeted initiatives.

Moreover, the Alpine Convention can formulate clear messages about funding programmes at the European level or funding schemes managed by national governments to consider environmental aspects. As most businesses do not rely on public funding but on successful framework conditions, the second aspect may mainly serve to support innovative business initiatives in the environmental sector.

5.6 Involvement of young people

Young people should be particularly addressed, as they are the backbone of any future development in the Alps. Providing information on the green economy as an economic model of the future in all education curricula is an important part of the overall process. Involving young people in the discussion about the future of the Alpine green economy creates identity and strengthens the emotional relationship of young people with their region. The Youth Parliament of the Alpine Convention is one instrument to achieve this goal, but there are many more possibilities. Creating interest for the Alpine economic development is closely linked to education on values in human life. Thus, it is not merely a practical involvement but also a contribution to a societal discussion, which can be fuelled by the Alpine Convention. Entering into the discussion on university curricula is of the same importance as supporting the Alpine networks working at the local or regional level to create a spirit of change and of innovation.

5.7 Civil society participation

A transformation process only works if people are convinced of the new idea and are willing to contribute. The Alpine Convention foresees the involvement of civil society by admitting observers (e.g. NGOs) to its meetings and by organising regular exchanges with different organisations and the wider public. Fostering a green economy still needs more and potentially more diverse measures to trigger citizens' participation in the transformation process. The Alpine Convention can provide the framework for action but heavily depends on its networks and its Contracting Parties to spread the message throughout the Alps and to all people living in the Alps. Taking the consumer's perspective in the GEAP is one first step to better identify the needs of citizens within an Alpine green economy.

Example: The Alpine towns and municipalities play an important role in communicating the goals of the AC and the GEAP to their citizens. This is a very good starting point, but it will be crucial to find more multipliers in different sectors to spread the message and to become role models for green economy players in the Alps.

6. Monitoring and evaluation

The GEAP is a working document that is designed to initiate concrete actions and to accompany the transformation process towards an Alpine green economy. It provides a set of potential measures and background information on motivation, framework conditions and proposals on how to proceed.

The Alpine Convention has formulated the transformation towards an Alpine green economy as an overall policy goal and, therefore, depends (a) on monitoring the overall process, (b) assessing in more detail, how the progress that is going to be made in the direction of an Alpine green economy, happens, and (c) drawing lessons that can be learned from implementing actions.

It is necessary to monitor the implementation of the GEAP as a whole and of its individual actions as well as to establish a reporting of the results every two years to the Alpine Conference, taking into account:

-    Cooperation with the different bodies and observer organisations of the Alpine Convention;

-    Local activities, e.g. via regular collection of new best practices and evaluation of progress in the implementation of existing best practice examples;

-    Overall green economy development in the Alpine region;

-    Learning processes for the development of future green economy actions.

Every four years, an evaluation of the GEAP should be undertaken with the

-    Participation of all relevant stakeholders and

-    Taking into account the implementation of the Sustainable Development Goals.

7. References

Abson, D. J., Fischer, J., Leventon, J., Newig, J., Schomerus, T., Vilsmaier, U., von Wehrden, H., Abernethy, P., Ives, C. D., Jager, N. W., Lang, D. J. (2016). Leverage points for sustainability transformation. Ambio, 46(1), 30-39.

Alpine Convention (2014): The Alpine Digital Agenda. Report

by the Italian Presidency of the Alpine Convention (2013-2014). *Decision ACXIII/B1b. ISBN 9788897500223; 64 p; Assessed 09.07.2018 under: http://www.alpconv.org/en/publications/alpine/Documents/Agenda_Digitale.pdf

Alpine Convention (2017): Greening the economy in the Alpine region. Report on the State of the Alps. Alpine Signals – Special Edition 6. 260 p.

Canice Consulting (2017): A comprehensive slideshow that explains the cultivation of an innovation mind-set. Published by caniceconsult; Assessed 09.07.2018 under: https://de.slideshare.net/caniceconsulting/3-innovation-mindset-77492776

Chilla, Tobias; Heugel, Anne (2018): Alps2050. Common spatial perspectives for the Alpine area. Towards a common vision. Targeted Analysis, Interim Report, 23.04.2018. Published under the ESPON programme of the European Union. 64 p.

European Commission (2010a): Europe 2020 - A strategy for smart, sustainable and inclusive growth. 37 p.

European Commission (2010b): Digital Agenda for Europe. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: „A Digital Agenda for Europe ". COM(2010) 245.

European Commission (2011): Our life insurance, our natural capital: an EU biodiversity strategy to 2020. Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. Brussels, 3.5.2011, COM(2011) 244 final.

European Commission (2014): Factsheet on Cohesion Policy – National/Regional Innovation Strategies. 8 p.; Assessed 09.07.2018 under: https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf

Fussler C., James P. (1996): Driving Eco-Innovation: A Breakthrough Discipline for Innovation and Sustainability, Pitman, London. 364 p.

Heyen, D.A. (2017): Exnovation: Herausforderungen und politische Gestaltungsansätze für den Ausstieg aus nicht-nachhaltigen Strukturen. Öko-Institut Working Paper 3/2016; Assessed 09.07.2018 under: https://www.oeko.de/fileadmin/oekodoc/WP-Exnovation.pdf

Hilty, J., Lidicker, W.Z., Merenlender, A.M. (2006): Corridor ecology: the science and practice of linking landscpaes for biodiversity conservation. Island Press, Washington C.C.

Italian Ministry of Environment, Land and Sea & United Nations Environment Programme (UNEP) (2017): Financing the Future – Report of the Italian National Dialogue on Sustainable Finance; Assessed 09.07.2018 under: http://www.minambiente.it/sites/default/files/archivio/allegati/sviluppo_sostenibile/Financing_the_Future_EN.pdf

Klemmer, P., Lehr, U., Lobbe K. (1999): "Environmental Innovation". Volume 3 of publications from a Joint Project on Innovation Impacts of Environmental Policy Instruments. Synthesis Report of a project commissioned by the German Ministry of Research and Technology (BMBF), Analytica-Verlag, Berlin. In: K. Rennings, 2000: "Redefining innovation: Eco-Innovation Research and the Contribution from Ecological Economics". In: Ecological Economics, 32, 1999, pp. 319-332.

Kooiman, Jan (2003): Governing as Governance. Sage Publications. Published by: Centre for Digital Philosophy. Western University Canada. ISBN 0761940359 9780761940357.

Kristof, Kora (2010): Wege zum Wandel. Wie wir gesellschaftliche Veränderungen erfolgreicher gestalten können. Oekom-Verlag. 160 p.

Rotmanns, Jan, Kemp, René (2003): Managing Societal Transitions: Dilemmas and Uncertainties: The Dutch energy case-study. OECD Report ENV/EPOC/GSP(2003)15/FINAL. 31 p.

Rotmanns, Jan, Loorbach, Derk (2010): The practice of transition management. Published in: Futures. Futures 42 (2010) 237–246. Assessed 18.12.2018 under: https://www.researchgate.net/publication/222518552_The_practice_of_transition_management_Examples_and_lessons_from_four_distinct_cases

Sauer, T; Elsen, S.; Garzillo, C. (2016): Cities in transition: social innovation for Europe's urban sustainability. Published by Routledge, NY. 271 p.

Sukhdev P. (2012) Corporation 2020, Transforming Business for Tomorrow's World. Island Press Washington D.C. ISBN-13:978-1-61091-360-7 (e-book) – accessed: 03.09.2018

TEEB (2010), The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB; Assessed 18.12.2018 under: http://www.teebweb.org/.

United Nations Framework Convention on Climate Change (UNFCCC) (2015): Adoption of the Paris Agreement FCCC/CP/2015/L.9/Rev.1.

United Nations Environment Programme (UNEP) (2015): Transforming Our World: The 2030 Agenda for Sustainable Development. A/RES/70/1. General Assembly. Distr.: General. 21 October 2015. Seventieth session. Agenda items 15 and 116. 15-16301 (E).

United Nations Environment Programme (UNEP) (2011): Towards a Green Economy. Pathways to Sustainable Development and Poverty Eradication.

Wissenschaftszentrum Berlin für Sozialforschung (WZB) (2018): Digitalization and Societal Transformation. Assessed 18.12.2018 under: https://www.wzb.eu/en/research/digitalization-and-societal-transformation

Wittmayer, J.M., Avelino, F., van Steenbergen, F., Loorbach, D. (2017): Actor roles in transition: Insights from sociological perspectives. Published in: Environmental Innovation and Societal Transitions 24 (2017) 45–56

The Alpine Convention is an international treaty between the Alpine Countries (Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland) as well as the EU, for the sustainable development and protection of the Alps.

Workshop

27 September 2017

Immenstadt, Germany

"Business models for the sustainable use of natural resources in the Alpine region"

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

List of Content

On 27 September 2017 the workshop "Business models for the sustainable use of natural resources in the Alpine region" was held in Immenstadt (Allgäu), Germany. The workshop was organised in cooperation with the Bavarian Organic Model Regions. It brought together about 30 participants from German, Austrian and Swiss Alpine regions who represented local and regional administrations focusing on different aspects of sustainable use of natural resources in their regions as well as farmers and participants representing natural protection institutions.

Keynotes

Two keynote speeches set the frame for the discussions. The first keynote on the "Promotion of entrepreneurship in support of a Green Economy" was given by Mr. Norbert Bäuml. Mr. Thomas Winter gave the second keynote on "Starting points and ideas for future-oriented and durable business models in a Green Economy".

Mr. Norbert Bäuml from the Bavarian Rural Development Administration highlighted critical factors for promoting entrepreneurial people in support of a Green Economy. Among them are the identification of people who are willing to take new pathways, entrepreneurial people in administration, supportive leaders and the importance to start with the people rather than with analysis and planning.

Figure 1: Norbert Bäuml giving his keynote.
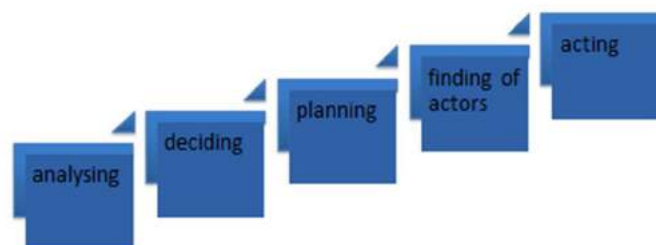
Figure 2: From Mr. Bäuml's presentation on the traditional development process of projects.

Figure 3: From Mr. Bäuml's presentation - different entrepreneurial people (left) and strengthening of small circular flows (right).

With selected local and small-scale examples, he illustrated how small initiatives can grow and can play a crucial role for further development of a greening of the economy. These illustrations, furthermore, showed that entrepreneurial people may have very different characteristics.

Figure 4: Mr. Winter giving his keynote.

The second keynote speech was given by **Mr. Thomas Winter**, founder and manager of the Swiss foundation "Economy and Ecology" (Stiftung Wirtschaft und Ökologie (SWO)). In his presentation Mr. Winter highlighted the links between natural resources and economic activity. He showed how the relations between harvests and yields as well as between emissions and assimilation ability, need to change to achieve a sustainable economy, respectively, a Green Economy. By critically reflecting the impacts of 'green' policies (e.g. strengthening of e-mobility), he highlighted that they often affect only one dimension of sustainability positively (e.g. reduction of CO_2) rather than other dimensions relevant for a Green Economy (e.g. social aspects, land fragmentation).
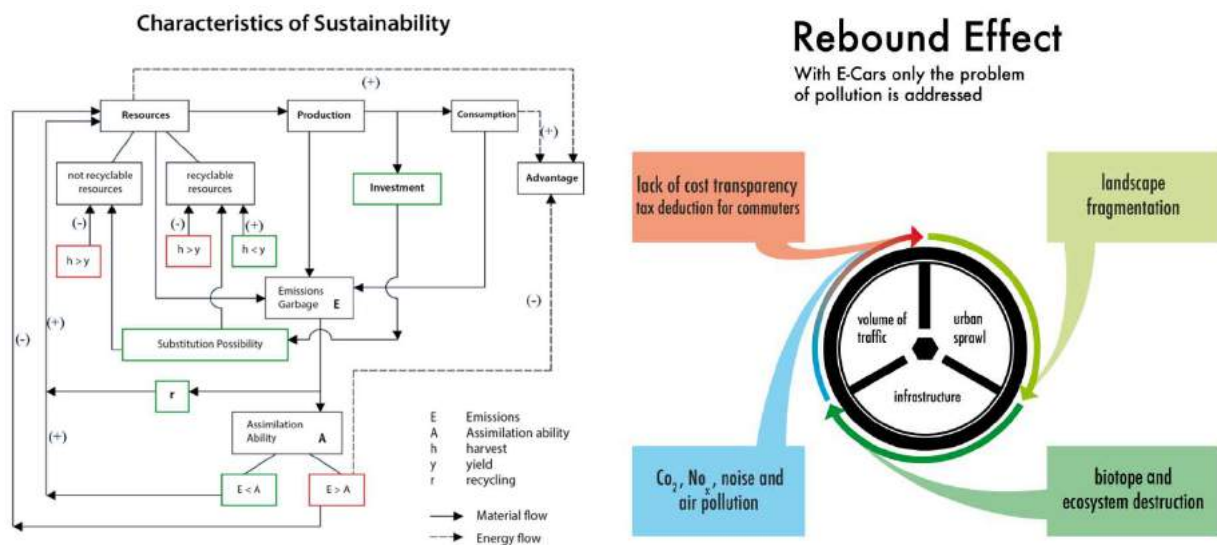
Figure 5: From Mr. Winter's presentation – Characteristics of sustainability (left) and dimensions relevant for a sustainable economy (right).

With respect to the generation of economically suitable working areas, Mr. Winter highlighted the main fields, in which the SWO foundation is working. These areas include several tasks, such as the enhancing of social, cultural and natural resources as well as the transfer of good practices to new regions.
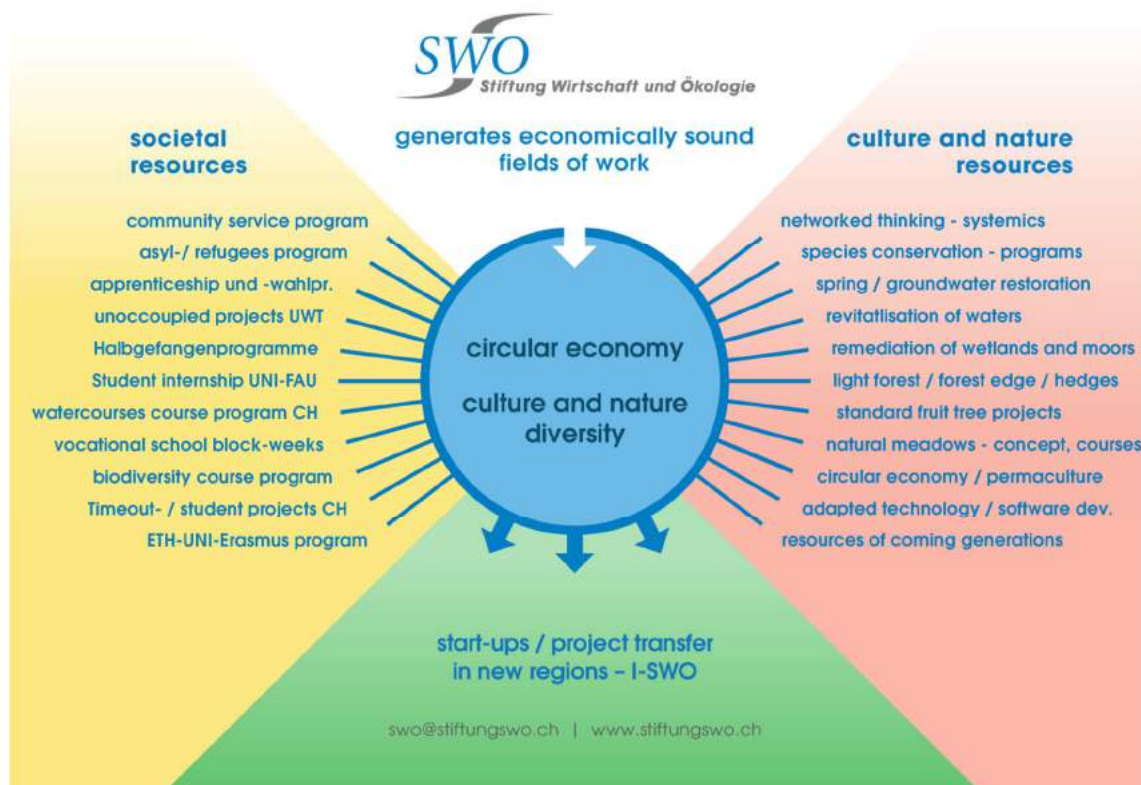
Figure 6: From Mr. Winter's presentation – Economically useful working areas.

Working groups

Three parallel working groups were at the centre of the workshop. These working groups discussed different approaches in supporting a Green Economy in the Alps. The starting points for discussion were

- the **Bavarian Organic Model Regions** – a programme supporting organic rural regional development and its actual local implementation;
- **Vorarlbergholz** and the **CaSCo Project** – how to develop sustainable value-added chains in regional wood production;
- **Bicycle city Sonthofen** – a city initiative for restructuring local transport and reorienting tourism towards a more sustainable use of natural resources.

Working group "Bavarian Organic Model Regions"

The practice – the model regions' programme

Organic model regions are one building block of the BioRegio 2020 programme, which has been initiated by the Bavarian State Ministry of Food, Agriculture and Forestry in 2013. This programme is a central element of the corresponding initiative by the Bavarian state government. The agricultural ministry expects to obtain answers on urgent questions through the implementation of organic model regions: How can local production increasingly meet the growing demand for ecologically produced food? How can consumers obtain a better awareness for regional circular flows and products produced locally? How may organic agriculture become more attractive for Bavarian farmers in a community of municipalities? What are the perspectives organic agriculture can offer to farmers?

For answering these questions, the organic model regions implement a broad variety of projects, ranging from production and processing, marketing and community catering to education. Some of the regions are already forerunners in organic farming and want to become even more successful. Other regions have a less pronounced organic farming profile. They want to make a significant step forward.

Organic model regions, however, do not only focus on increasing the acreage for organic farming but look into the connection between regional origin and organic production. In the organic model regions endogenous potentials shall be opened up, existing structures shall be stimulated together with committed players and new structures shall be developed. Each region has active 'entrepreneurial people' who want to promote their regions and bring organic farming forward. The organic model regions offer support to these people and accompany them when taking the next steps. Long-term effective rural development, including the support for regional organic value-added chains, needs to build on people rather than on strategies and plans only.

For further developing an organic model region it is thus necessary to build a regional process of "learning from each other" and "jointly shaping and designing". Whoever has a good idea and wants to implement the idea obtains the support necessary to do so.

Accompanying and inspiring these people, setting this process into motion and stabilising it is the core task of the project managers in the model regions. The regions' entrepreneurial potential shall be tapped to mobilise communal, independent and forward-looking action. The "Meat Quality Strategy 'Miesbach Pasture Beef'" is one example for the actual implementation of developing an integrated value-added chain based on regional organic food production.

Entrepreneurial people:

Entrepreneurial people can be found in economic enterprises as well as in administration, politics and associations. They dispose of crucial resources that are important for successfully shaping regional development processes. These are people who passionately contribute to their issue and, thereby, create change in their region. They are active organisers developing, thinking through and implementing their own ideas. These people do not only promote their own project through their action but positively shape their environment and impact on the image of a region.

FURTHER PROJECT INFORMATION

Bavarian Rural Development Administration
Katharina Niemeyer
Katharina.niemeyer@bza.bayern.de
www.oekomodellregionen.bayern

The practice – a project example: The Meat Quality Strategy "Miesbach Pasture Beef

In collaboration with all relevant players, a meat strategy for organic pasture beef from the Miesbach county is under development that considers the whole value-added chain.

Nucleus is the transition of an organic dairy farm into organic suckler cow husbandry and the financing of a new cow barn through a civic funding model. What is special about this project is the development of consumer-adjusted meat packages. Apart from classical roast cuts, bratwurst and burger patties South American cutting is used to increase the

share of short-roasted. The meat cuts are obtained through a specific Argentinian cutting technique that allows a higher yield of grillable pieces. Other farmers as well as butchers and restaurant owners are interested in this concept. Together with these players the quality strategy shall be further developed step-by-step.

Project specifics:

- Slow development with active players interested in contributing their share;
- Development of the offer from the perspective of the consumer. Integration of consumer needs and farmers' needs as well as quality requests throughout the value-added chain;
- Consideration of the whole meat value-added chain; from production depending on the breed, feeding, husbandry and final feed to on-farm slaughtering of cattle via gunshots as well as processing, sufficient maturing, cutting methods and burger patties to means of direct marketing (e.g. advance sales and profit participation certificates), restaurant owners and butchers;
- Use of old slaughterhouses (satellite maturing);
- Development of offline / online marketing;
- Storytelling.

Outputs achieved so far:

- Successful citizen-based funding of the initiating farmer's barn reconstruction;
- Involvement of a butcher convinced of the outstanding meat quality;
- Significant interest of other farmers to move to organic suckler cow husbandry (two farms agreed already); it is a perspective for conventional dairy husbandry and part-time farms;
- Considerable interest by restaurant owners to integrate the product in their menu (strong link between tourism sector and local farming and use as locational factor);
- Approval of on-farm gunshot slaughtering / slaughter box to appropriately consider animal welfare;
- The county perceives and uses "organic" as locational advantage.

Leason learned so far:

The project may only develop successfully and sustainably if the players contribute and take those steps that they are able to take commonly at a certain moment.

- It is important to take the players absolutely seriously and to look for solutions commonly and take the next steps (supportive leading role).
- Joy to experiment – when starting off for common new paths one may sometimes get to a dead end. It is better to identify mistakes early and take adjusting measures rather than to "kick off" too early. Remain open for surprising developments.

In the long-term a premium organic meat label shall be established that is marketed regionally. Depending on the players that contribute during the further implementation of the project, priorities may change. It is important that all steps of the value-added chain get a fair share of the product price.

FURTHER PROJECT INFORMATION
Project management organic model region Miesbacher Oberland:
Marika Kinshofer
Marika.Kinshofer@smg-mb.de

The discussion concluded that entrepreneurial projects need to be oriented towards the need and motivation of the players involved, rather than along theoretical concepts. Collaboration leads to solutions based on the means available to the players. This may also include taking detours and abandoning previous approaches and ideas. Four principal elements were identified that are crucial for a project's success:

The project needs an **accompanying /networking person** who brings together the players of the value added chain. In order to be successful, this person needs direct contacts to all relevant players. The networking person may be assigned differently but needs to be neutral and pragmatic and may be financed from different sources including enterprises, cooperatives or associations. Sustainable financial viability supports the individual engagement.

Figure 7: Ms Niemeyer presenting working group results to the panel.

Processes are crucial since they may be long-lasting and require the networking person to keep the process going. A process may grow organically by starting with a relatively small number of players. Mayors have an important role as a positive example and through their possibilities of providing support to projects in the municipality.

Exchange of knowledge and experience between practitioners and between regions is important. New ideas may also be created through exchange in explorative workshops.

At more **general level**, marketing of agricultural products requires experts with a perspective towards consumers and a professional approach towards information and publicity support to increase acceptance of new approaches in the region.

Projects with a similar focus to that of the organic model regions may be interesting for regions with a high purchasing power of the local population and/or of tourists. Such projects may also attract tourism activities.

Working group "Vorarlbergholz"

The practice

Objectives of the project:

- Strengthening of the regional value-added chain wood;
- Avoid out-migration of know-how and value-added creation.

Project partners:

- Firms from different sectors: forestry, sawyer, wood traders, wood processors, wood workers
- Lobby groups, regional development Vorarlberg, Land Vorarlberg, EU

Needs for action:

Dramatic changes in the field of imports and exports

- Logging and wood cutting are relatively stable (360 to 400 thousand cubic metres);
- Export of logs and sawn timber increases;
- Use of wood increases slightly in building (turnover and amount);
- Purchase of wood products from other areas is increasing strongly;
- Critical increase of distance to purchasing markets.

Changing labour market

- Employment was decreasing in 2000-2011, slight increase since 2011;
- Number of apprentices is decreasing.

Alarming signs of decreasing value-added in the country

Figure 8: Needs and challenges for the regional value added chain wood.

- Increasing share of sawn timber export and import;
- Increasing share of solid structural timber (KVH), laminated timber (BS), cross-laminated timber (BSP);
- More than 60% of wood used for timber houses built in Vorarlberg is provided from other regions;
- CO_2 balance deteriorates dramatically due to increasing transports;
- Value-added potential of Euro 30 to 40 million per annum is not used.

- Vorarlbergholz unites and links approximately 30 members of the overall value-added chain wood in Vorarlberg;
- Vorarlbergholz provides a guarantee on the wood's origin by using internet based platform systems including a visualisation of the supply chain, controls with isotope method (database collection, although with gaps);
- Collection of needs together with selected leading businesses;
- Testing of possible solutions and feasibility (especially wooden casks);
- Initiating planning processes and accompanying new cooperation.

Possible solutions:

- Vorarlbergholz makes general marketing efforts with limited budget, identification together with the member companies and application through member company is important (this was not sufficient, use of market advantages with target groups);
- Increase the ability to supply regional wood products through marketing efforts;
- Consider storage across enterprises (**vision of wooden casks**) for enhancing preconditions for prefabrication of semi-finished products;
- Developing new financing models to guarantee the use of regional wood;
- Targeted use and further development of market niches;
- Strengthening and linking of existing firms by means of this sales strategy.

FURTHER PROJECT INFORMATION

www.alpine-space.eu/casco
www.vorarlbergholz.at

Discussion

Vorarlbergholz is facing a number of challenges that are tackled individually by means of different approaches:

By convincing public buyers to include the regional aspect as criteria in procurement procedures could be an additional aspect of **green procurement**. Although EU rules do not allow for a corresponding labelling in procurement documents, it is feasible to define e.g. maximum transport distances for reducing CO_2. Certificates of origin, as they are established in Vorarlberg and Oberallgäu, are an important instrument for EMS (energy management system) certifications. The Oberallgäu elaborates texts for procurements that shall help public buyers to include a regional assessment criterion.

A lack of sufficiently available regional wood in Vorarlberg has initiated a discussion on building a **wood maturation storage**, which in turn leads to a financing challenge. This requires new approaches to loans through financial instruments or the involvement of common welfare banks or other enterprises interested in the storage.

For **successful marketing** of regional wood to the clients, sustainability and regional origin are not sufficient. Additional beneficial quality criteria are necessary, such as a storytelling approaching emotional and health aspects of wood.

Branding and awareness raising are crucial to strengthen the demand potential for regional wood. In Oberallgäu this is tackled e.g. by directly approaching target groups such as mayors and architects. A clear differentiation is necessary if other associations are existing in the sector that may not be based on regional wood.

Figure 9: "Vorarlbergholz" group discussion.

Problem awareness is still lacking in the wood sector. Members of the Vorarlbergholz initiative are not very active in the marketing of the Vorarlbergholz label. By means of developing a common positive vision, engagement shall be enhanced. This requires a visible added value for each participating firm. Despite the geographical neighbourhood there is little contact between the wood sector of Oberallgäu and Vorarlberg, which implies that the sector has not got a **common voice** in policy and administration.

Financing of project activities of the association gets increasingly difficult. Interreg projects are an important financial source, sometimes also membership fees or other public programmes (LEADER). However, applications, handling and payment conditions of these funding sources tend to get more complex, complicated and unfavourable.

Discussions showed that the problems are very similar in the border areas of Austria and Bavaria. However, structures of regional firms, funding opportunities, legal framework conditions, administrative structures etc. differ strongly, which hampers a direct transfer of good solutions from one region to another one.

Nevertheless, there are some measures that may be beneficial for the whole Alpine region:

Awareness raising can be supported by **flagship projects** since positive examples are important. For instance, wooden houses from the region could participate in **Alpine wide architecture competitions** by highlighting the role of 'regional building materials'. In addition, curricula should be adjusted to ensure that future engineers and architects learn better about wood as a regional building material.

Helping **supportive leaders and multipliers** to support better regional ties. It is important to better identify individuals that are already active, whether in administration, politics, building sector, tertiary education or private firms. **Direct marketing** needs to be used better.

Existing **'green labels' may require adjustments** and a critical review to ensure the use of regional materials. This asks e.g. for considering the regional origin as procurement criterion as outlined above.

Higher **flexibility of funding programmes** can be beneficial, e.g. by indicating target corridors rather than fixed targets.

Cross-regional and/or cross-border cooperation of the wood sector could strengthen the political weight of the sector.

Working group "Bicycle city Sonthofen"

The practice

Sonthofen is becoming a **Bicycle City**. On 1st May 2017 Sonthofen has become the 50th member of the Association 'Cycling friendly municipalities Bavaria' (AGFK Bayern).

The city council considers the development of a 'Bicycle City' project as a unique opportunity to position the city as being future oriented and sustainable. The city can develop a sustainable position in terms of **inner-city development** and **tourism reorientation**. The 'pro Bicycle City' **decision of the city council** was taken on 29 December 2016.

Until mid-January the city conducted 15 workshops where it collected more than 250 ideas for enhancing the Bicycle City Sonthofen. These ideas range from a **bicycle traffic strategy to a 'Radlerbreze'** (pretzel formed as a bike rider). **'Radlerbreze' were given to more than 1,000 bike riders during the 'BR Radltour'** (bike tour of the Bayerischer Rundfunk) **by the final destination Sonthofen.**

During the **visits of the AGFK** in March 2017, some aspects raised particularly positive responses, for instance:

- The network 'fahrRAD' tackles the bicyle topic in a broad way (firms, citizens, hosts, service providers);
- Many areas for bike riders at intersections giving them priority ahead of motor vehicles, open oneway roads and dead ends, access for bikes in pedestrian areas;
- Sonthofen specific bicycle holders in the pedestrian area;
- Bike rental station 'Radlbahnhof' next to the tourism information;
- Tool station in the pedestrian area next to the Allgäu cycle round.

On 3rd April 2017, during a **special meeting** the Sonthofen city council decided to increase the share of bike riders in total city traffic by 5 % from currently 18 % to 23 % over the next five years. For realising this objective a **bicycle traffic strategy** was commissioned. The strategy will focus on inner city and tourism development and will be based on a strong participation of local actors.

Even now some individual measures suggested by the AGFK are under implementation in the city. New **bike storage facilities** and **eBike stations** are under development in the city centre as well as next to the Allgäu bike round and other locations with a high quality of stay such as cafés. Sonthofen city provides a subsidy for the development of commercial eBike stations. Other current measures include the renewal and upgrade of **bike lane markings** and bike rider priority areas. Furthermore, **traffic routing** for visitors within and through the city is improved continuously.

Apart from the mentioned infrastructure and traffic measures other projects are implemented in relation to **public relations** and **citizen participation**. The network 'fahrRAD' is active with a broad actor involvement. In the city hall it holds monthly

meetings for discussing ongoing and future measures. For example, schools have submitted draft posters for improving the Shared Space of pedestrians and bike riders in the **pedestrian area**. The **city magazine** reports periodically about ongoing bicycle projects. An internet webpage was implemented dealing with the bicycle city and a new **racing bike map** Sonthofen-Hindelang has been published.

In addition, the city of Sonthofen collaborates intensively with all relevant actors on developing a premium MTB-route along the Allgäu and Tirol. For new, young

and learning bikers a **biking park** is available in the city. In July, a new event series **'Forum Radstadt'** (bicycle city forum) started successfully with an event dealing with MTB-tourism in Alpine regions. However, Sonthofen does not only bike in theory but shows its vivid biking enthusiasm at small and big **cycling events** such as the Deutschlandtour, Trans Germany, Sonthofen cycling days or this year's **Tour Transalp** and the **BR Radltour**.

FURTHER PROJECT INFORMATION

Dr. Johannes Buhl
johannes.buhl@sonthofen.de
www.sonthofen.de

Discussion

The political decision for developing a bicycle city has made this focus to the primary sustainability topic for the next years that builds on previous activities of other sectors to enhance sustainability at local level. For small municipalities such an approach can only be tackled as cross-sectoral topic that includes all relevant sector policies. The approach combines push- and pull-factors and activities to realise the strategy's objective and creates new challenges and ideas for possible solutions:

The labelling as 'bicycle city' serves as **marketing measure** that helps municipalities to stand out from other neighbouring municipalities. However, for enlarging bicycle use more municipalities need to apply comparable concepts. Partially, even establishing the label in one city requires collaboration on the topic with neighbouring municipalities to establish bicycle routes etc. Thus, the challenge is to **highlight the benefits** of the measure **for the own city and its citizens** while collaborating with neighbouring municipalities.

Local **public transport** is under the responsibility of different actors (e.g. districts rather than municipalities) and collaboration on better carriage conditions for bicycles is difficult. If other measures promise to be more effective in the short term, such challenges are not necessarily tackled.

It may be doubted that bicycle tourism may actually **replace winter tourism**, due to the unfavourable road conditions during the winter season. More intensive use of bicycles during winter may require **additional transport models** such as car sharing and better local public transport offers to replace individual car traffic in winter, at least partially.

Promotion of the bicycle city also implies a more intensive use of e-bikes and mountain bikes that influence general traffic behaviour. For instance, agricultural pathways and pathways in protected landscapes tend to be overused. In addition, new paths are established that
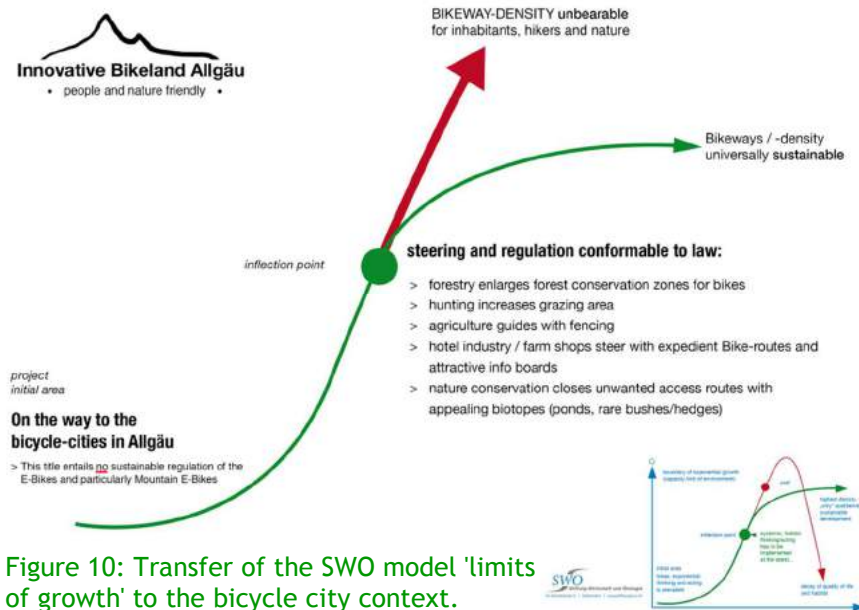
Figure 10: Transfer of the SWO model 'limits of growth' to the bicycle city context.

are not approved and cross pastures. In consequence, affected land owners who are responsible for path maintenance as well as environmental protection associations are concerned. New **land use conflicts** occur that require new action by farmers and other affected stakeholders - for instance, to set-up new bicycle suitable gates between pasture areas. Achieving a new consensus of different land users requires additional actions, such as

- Purposeful selection of bicycle routes and bottom-up development of a biking route network;
- Extension of protected areas only to be used by agriculture and forestry but excluded from other uses;
- Improved rural area management through flexible routing systems (similar to that of ski runs) offering attractive alternatives that counteract prohibited land use;
- New solutions for liability in case of accidents on agricultural pathways;
- New financing solutions for additional investment needs (e.g. pasture gates);
- Acknowledging problems pro-actively and collaboration including landowners.

There are several access points that may be used to enhance the use of bicycles through the engagement of municipalities:

A **critical mass** of participating municipalities can create additional impetus for other neighbouring municipalities to participate as well. Critical masses can also be created in terms of extended protection areas, which make them more attractive for visitors (positive steering rather than bans).

Platforms for exchange can support finding partners to enhance the different experiences (similar to the use of the AGFK – Association of cycling friendly municipalities in Bavaria by Sonthofen). They can be financed through membership fees. For this purpose, even the utilisation of existing working groups dealing with transport of the Alpine Convention, or of the EUSALP (Action Group 4 – To promote inter-modality and interoperability in passenger and freight transport) could be extended by a local transport focus.

Participation concepts need to be communicated more widely to make better use of them.

For increasing energy efficiency, **training tools** are existing. After the training, the advisers support municipalities in developing approaches for enhancing energy efficiency in municipalities by adjusting the different feasible measures to local conditions. Their experience could be worthwhile to transfer to enhance learning of municipalities in relation to local transport in support of using bicycles rather than motorised individual transport.

Interreg projects need a better **capitalisation**. For establishing durable structures and using the project results sustainably, the **legal form** of cooperation is often decisive. For instance, cooperatives are suitable for ensuring refinancing since income of the project is reinvested; foundations focus more strongly on long-lasting political objectives. This often requires an entrepreneurial individual who is able and willing to push the project also beyond the original project duration.

Results

Active discussions did not only confirm the findings highlighted in the keynote speeches but showed, furthermore, that there are many similarities between economic activities across sectors aiming at a more sustainable use of natural resources. They require local step-by-step initiatives of entrepreneurial people and support from public authorities and policy makers are crucial. Obtaining support from the local population requires a clear communication of individual benefits of related measures.

Selected examples as starting points for the discussion, illustrated the difficulty in anticipating all necessary sub-steps in the realisation of sustainable projects. Implementation raises new conflicts, often linked to multiple land-use that need to be solved through intensive dialogues between relevant stakeholders, including affected citizens, land owners, local firms as well as local associations and administrations.

The workshop concluded with a collection of ideas for further spreading the use of good practices in support of a Green Economy in the Alps. The proposed measures range from awareness raising and better communication approaches for crucial success factors to better targeted networking between public administrations and the use of existing platforms and networks for local and regional activities.

Figure 11: Workshop plenary session.

ANNEX

Agenda
List of participants

CONTACT

Dr Sabine Zillmer
Spatial Foresight
www.spatialforesight.eu

AGENDA

10:00	Opening with greetings Sarah Diem (Organic Model Region Oberallgäu) & Richard Landgraf (UBA)
10:10	Background and objectives of the workshop Dr Sabine Zillmer
10:20	Short introduction of the participants
10:40	Keynote I – Promotion of entrepreneurship in support of a Green Economy – Norbert Bäuml, Bavarian Rural Development Administration (DE) Keynote II – Starting points and ideas for future-oriented and durable business models in a Green Economy Thomas Winter, Foundation Economy and Ecology FE&E (CH)
11:25	Introduction to group work

The concept of the Eco-Model Regions and their practical implementation at the example of the Miesbacher Land Katharina Niemeyer, Bavarian Rural Development Administration; Marika Kinshofer, Eco-Model Region Miesbacher Land (DE)	Biking city Sonthofen Dr Johannes Buhl, City of Sonthofen (DE)	Sustainable value-added chains of regional wood production – Vorarlbergholz and the transnational cooperation project 'Carbon Smart Communities' (CaSCo) Thomas Ölz, Chamber of Agriculture Vorarlberg; Martin Staudinger, telesis GmbH (AT)

11:35	1st session – Good practice examples, their success factors and challenges
12:30	Lunch
13:30	2nd session – Ideas for expanding successful experiences in the Alps
14:25	3rd session – Suggestions for future actions
15:15	Coffee break
15:30	Joint discussion and synthesis of the results of group work in the plenary
16:15	Outlook Dr Sabine Zillmer (Spatial Foresight)
16:30	End

List of participants

Name	Institution
Christine Bajohr	KugelSüdhangHof
Norbert Bäuml	Bayerische Verwaltung für Ländliche Entwicklung
Anne Bogdanski	Biosphärenregion Berchtesgadener Land
Maike Breitfeld	Holzforum Allgäu
Dr Johannes Buhl	Stadt Sonthofen
Augusto Clerici	Marktgemeinde Nenzing
Melanie Darger	Öko-Modellregion Miesbacher Oberland
Sarah Diem	Öko-Modellregion Oberallgäu
Christine Eben	CIPRA Deutschland
Dr Bettina Hedden-Dunkhorst	Bundesamt für Naturschutz (BfN)
Dr Michael Honisch	AELF, Fachzentrum Alpwirtschaft
Marika Kinshofer	Öko-Modellregion Miesbacher Oberland
Yann Kohler	ALPARC
Richard Landgraf	Umweltbundesamt
Katrin Moegele	Bayerische Forschungsallianz (BayFOR) GmbH
Manuela Müller-Gaßner	Gemeinde Weitnau
Katharina Niemeyer	Bayerische Verwaltung für Ländliche Entwicklung
Thomas Ölz	Landwirtschaftskammer Vorarlberg
Dorothea Palenberg	blue! advancing european projects
Aureliano Piva	Permanent Secretariat of the Alpine Convention
Dr Guido Plassmann	ALPARC
Alexander Schmid	Standortmarketing-Gesellschaft Landkreis Miesbach mbH
DI Martin Staudinger	Telesis
Florentien Waldmann	Allgäu GmbH
Nathalie Wergles	Spatial Foresight
Thomas Winter	Stiftung Wirtschaft und Ökologie (SWO)
Hugo Wirthensohn	Holzforum Allgäu e.V.
Sabine Zillmer	Spatial Foresight

"Circular Economy"

Workshop

25 October 2017

Edolo, Italy

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

BASEL (CH)
13 November 2017
Eco-innovations

IMMENSTADT (DE)
27 September 2017
Sustainable use of natural resources

VILLACH (AT)
9-10 November 2017
Role of municipalities and cities

EDOLO (IT)
25 October 2017
Circular economy

GRENOBLE (FR)
14 November 2017
Climate change, energy and construction

GORIZIA (IT)
29 November 2017
Green finance for innovation

List of Content

The "Mountain University" - Centre of Excellence of the University of Milan located in Edolo hosted the second Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region on 25 October 2017. This workshop was the second of a series of six workshops that deal with Green Economy in the Alps.

Figure 1: Origin place of participants to the workshop in Edolo.

Participants from Italy, Austria (only one) and Switzerland (even though just virtually in the Swiss case) met in Edolo to discuss two main topics: mountain farming and mountain tourism in the Alpine region in the framework of circular economy. Participants were accompanied in their work by 7 moderators and 7 observers.

Welcome

The participants were welcomed by Ms Anna Giorgi, Professor at Unimont who underlined the importance of listening to the needs expressed at the local level and by the Mayor of Edolo Luca Masneri, who stressed the challenges but also the opportunities that our society will face when it will leave a linear economy to go towards a circular economy. Elisa Agosti introduced CIPRA International and the framework of the Green Economy Action Programme in which the workshop was organised as well as the objectives of the workshop series.

Keynotes

Two keynotes were invited to present their experience in the field of the Green Economy. Mr Valentino Bonomi studied at Unimont. After finishing his studies he decided to open a farm and to run it together with his family. Because of an EUSALP meeting in Germany that took place on the same day, Mr Tobias Luthe could not join the workshop in Edolo and held his presentation via teleconference. The presentation was given in English and was translated by Ms Sarah Whitaker a native English speaker who will soon start her post-doc activities in Edolo.

Figure 2: Valentino Bonomy.

Valentino Bonomi presented: "New farming, new farmers in the Alps. An innovative approach to tradition, towards a circular economy" and the case: "Tradition and innovation. How I run my farm."
The speaker presented his experience as young entrepreneur in his farm and agrotourism in the areas of Ceto, Braone, Niardo, Breno (not far from Edolo). Quality, uniqueness, specific features are the keys to his success.

Valentino explained the reasons and the process behind the creation and improvement of a sustainable business in line with mountain specificities, by focusing on product valorisation and the protection and recovery of native species and pasture quality, and by creating new production models designed to enlarge his business while maintaining awareness of the territory, the environment and the consumer, in line with a circular economy approach.

By strengthening the identity and the image of products based on endangered species, compared to more commercial products, he helps to safeguard their future survival. For this reason, Valentino is a member of the Associations set up to protect the species of Bruna Alpina Originale, Bionda dell'Adamello and Capra Orobica. Waste products are considered as secondary sources for new processes towards a full auto-management of his farm.

Valentino is aware of the need to work in a network with other entrepreneurs, as well as with institutions such as the University or local institutions and to create networks able to meet the challenges of the market and to fully exploit its potential according to circular productive logics.

Figure 3: "Spiky black corn from Valcamonica" rediscovered corn variety.

Figure 4: Bruna Alpina Originale.

Tobias Luthe presented: "More connected, more resilient" and the cases: "The concept of circular design and the structure of social-ecological networks. Good practices from Ostana and Paulownia"

Figure 5: Tobias Luthe, ©tobiasluthe.de

Mountain regions are most vulnerable to environmental and demographic change while suffering from political and economic neglect. Their economy often depends on single industry sectors, like agro-forestry, mining or tourism. The revival of mountain economies requires the development of a more resilient economic model that is more adaptive and innovative to prepare for and respond to change. Such a more resilient economy is based on higher connectivity between different economic sectors, mimicking natural systems

that function in circular ways where no waste exists, but outputs from one process are new inputs for another one. The development of a circular economy in mountain regions requires sophisticated tools and motivating illustrations to overcome jealousy and lack of collaborative will. In his talk he presented theoretical insights and practical illustrations on how to embed tourism within a more circular economy.
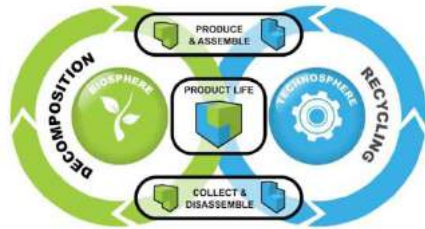
Figure 6: Circular project model – cradle to cradle. How to link supply chains of products and services.

Figure 7: Examples of circular project models in tourism.

About the RSA6

Marianna Elmi, Deputy Secretary General at the Alpine Convention, gave a presentation about the Sixth Report on the State of the Alps (RSA6), which focuses on Green Economy, while Luca Cetara, representative of the Italian Delegation at the Alpine Convention presented some data concerning the Italian case.

Working groups

When invited, participants had been already provided with some information about the workshop and with the synthesis of the RSA6. They were invited to bring with them one photo of innovation in mountain agriculture and one photo on innovation in mountain tourism.

After the presentations the participants were split into seven groups according to their profession or occupation. The groups were divided as follows: administrators, academia, agricultural entrepreneurs, tourism entrepreneurs, investors, journalists and the civil society. Each group was accompanied by a moderator with the same background as the group members. During the first round, all the groups were given 50 minutes to exchange opinions and good practices regarding mountain farming. They were asked to present a successful example of innovation in mountain farming and to identify three major innovative elements of their example or of the example(s) presented by other group members. After that, bearing in mind the exchange that had taken place, they were required to think about three elements that support innovation and three elements that can prevent it. The role of the moderator was to give suggestions, to make sure that the discussion went in the right directions. The moderator was supported by a Unimont student who took care of writing the most important information and findings on a poster.

The same process was used during round 2, which focused on the second topic of the workshop agenda: mountain tourism.

Questions' pattern:

QUESTION – AGRICULTURE	QUESTION - TOURISM	AIM
Can you report a best case you took part in or you know of innovation in mountain agriculture? Where was it?	Can you report a best case you took part in or you know of innovation in mountain tourism? Where was it?	Collect relevant cases in which innovation can be analysed and better defined in line with the circular and green economy approach.
Which are the elements you consider innovative in the best case/s you presented?	Which are the elements you consider innovative in the best case/s you presented?	Develop innovation clusters according to its typology (process, product, management, marketing, other).
Which are the obstacles for a more effective innovation in mountain agriculture?	Which are the obstacles for a more effective innovation in mountain tourism?	Identify the challenges we need to tackle when trying to innovate.
Which are the elements, which foster the innovation in mountain agriculture?	Which are the elements, which foster the innovation in mountain tourism?	Identify the elements which can be used to favourite the innovation in specific areas.
Today it is a special day and you have the power to introduce a key change in the process to push innovation in mountain agriculture. What do you do?	Today it is a special day and you have the power to introduce a key change in the process to push innovation in mountain tourism. What do you do?	Figure out key elements for the change/improvement, possibly according to circular economy logics.

Figure 8: Best cases of innovation in mountain agriculture proposed by participants during the first round.

Figure 9: Best cases of innovation in mountain tourism proposed by participants during the second round.

Presentation of results and final discussion

After the seven parallel group discussions during round 1 and 2, the participants moved all together in the same room, where each moderator presented the main topics that were discussed in his/her group during round 1 and commented on the poster that they

produced. The floor was open to a larger discussion in which all the participants were given the chance to share their impressions and last comments.

The moderators were given once again time to present the main results regarding the discussions that took place during round 2, supported by the poster that had been prepared at the same time as the discussion went on.

Relevant outputs

First round - focus on agriculture

Which are the elements you consider innovative in the best case/s you presented?
The innovative elements the groups identified are mostly linked to a circular approach based on the re-consideration and re-valorisation of traditions, ancient work practices, collaborative work, short-chain production and short-range distribution / 0 km products by approaching these elements from a modern, more aware and culturally educated perspective. The necessity to create horizontal and vertical networks and collaborate with peers rather than compete - also for micro enterprises, is perceived by all as a key element for economic evolution. When considering seeds for innovation, two main clusters emerged: (1) quality - uniqueness- territory - specificity and (2) transparency - fairness - disciplinary code/disciplinary sanctions. The first one focalizes on the valorisation of the areas, the second, rather on people and on the promotion of good relationships (both for producers and consumers), which can lead to win-win situations. Innovation seems to be up to both these clusters and calls for a better attention to producers/consumers' needs in order to better address energies and resources. Education, information and creativity can play a major role also in building up intra-generational relationships. Education programmes should provide students with better IT skills, online communication skills and the capacity to deal with up-to-date technological tools. This process is fundamental to train the students to become the businessmen and businesswomen of the future, enabling them to promote new economic models, including circular economy strategies in mountain agriculture. An in-depth knowledge of the available tools is fundamental to engender positive economic processes and to shape efficient networks.

Which are the obstacles for a more effective innovation in mountain agriculture?
Cultural aspects and a lack of knowledge seem to condition the possibility to innovate as they are considered causes of a political and economic short-term vision. Fragmentation of territories, ownerships and relations are also mentioned as constraints. A too articulated bureaucracy is a limit to innovate but also a poor communication of the successful innovation is responsible for impeding a larger spread of good practices and best cases. Elderly generations (whatever their professional role, policy makers, farmers, etc.) are often afraid of innovation, still have an influence on younger entrepreneurs and are not aware about the new markets and technological/funding tools. Sometimes policy makers have no field experience and are often unaware of the measures that could facilitate the working activities of mountain farmers and tourism businesses. In many cases small and easy-to-implement changes would have a positive impact. Some of the participants, however, highlighted the fact that by implementing new regulations in agriculture their administrative tasks have become increasingly time consuming.

Which are the elements fostering the innovation in mountain agriculture?
Sharing and networking seem to be commonly recognized as relevant elements to foster innovation together with a professional education and the awareness of the value of the territories. These elements can lead to using a single common brand and communication, to prefer local markets and qualitative products, to go for transparent production processes, to re-use and capitalize resources in line with a circular economy approach. Young entrepreneurs can better support the innovation in this sector. Technological

integrated platforms could be a useful solution to support entrepreneurs. These platforms allow the integration of the entire supply chain process and make it easier to follow the production steps, the services that are provided and the communication of the goods.

Today it is a special day and you have the power to introduce a key change in the process to push innovation in mountain agriculture. What do you do?
According to the groups, key changes are based on the possibility to: improve the professional education; provide innovative tools coming from the local competences in order to implement political strategies which can then become legislative actions; recognize-control-guarantee products quality and origin; provide professionals which can support farmers with business plans, fundraising, strategic communication; better communicate successful innovation cases; connect sectors like agriculture and tourism in circular mutual useful processes; reduce too complicated rules and fund more applied education and innovation.

Second round – focus on tourism

Which are the elements you consider innovative in the best case/s you presented?
The groups agreed that cases guaranteeing an authentic experience and providing quality in products, providing activities in which the customer is the protagonist can make the difference in mountain tourism. Experience/qualitative contents are key elements together with the capacity to create emotions and to catch passions (powerful triggers). Best cases are generated by subjects who know the territory in depth, have a cross-disciplinary approach to the topics of interest for a tourist, create innovative storytelling starting from history and tradition, as well as establish a direct relation community-tourists. Technologies are present in almost all cases to communicate or support the tourist in his/her activities with modern services. Re-use is also a key for buildings or ancient workshops.

Which are the obstacles for a more effective innovation in mountain tourism?
Vulnerabilities come from "blocked" situations, which do not evolve according to needs (buildings, services, no internet connection, poor transports, etc.), with players who do not try to understand the new tourism needs. A cultural weakness leads to poor collaboration between tourist operators, which often merges with political blindness and absence of strategies in respect to the territorial value. Local operators are not aware of the available local resources (natural, cultural and social resources), which are ready-to-be-used, so they finally do not turn them into value.

Which are the elements fostering the innovation in mountain tourism?
Know and promote the local resources by empowering people and infrastructures, including communication infrastructures. A platform for investment could be a way to support new sustainable trends and approaches in the tourist field. A stronger professional education can improve welcome and tourist management, help to create new (green) jobs ready to cope with the international markets and the fast changes, consider and promote the local assets. As well as for agriculture, a strong call for collaboration and networking (between operators, between public administrations and operators, between service owners and professionals) comes from all sides.

Today it is a special day and you have the power to introduce a key change in the process to push innovation in mountain tourism. What do you do?
According to the groups, key changes are based on the possibility to: educate and empower the communities concerning their local assets, which can be turned into high economic value; promote collaboration and exchange between operators, including the international level; facilitate youth to become innovators and entrepreneurs; promote and communicate good practices (e.g. albergo diffuso) and qualitative/complete information;

foster education and the transfer of knowledge in the sector and cross-sector (e.g. with agriculture); improve infrastructures, especially the broad-band.

Feedback from the moderators

Moderators reported a rather good satisfaction about the reaction and interaction of participants and appreciated they came from all over the Alpine arch bringing in their experience (more personal than professional when talking about best cases) and voice.

The approach of the different groups was positive and pro-active since the very beginning and the will to share knowledge and experiences was present all day long. Even though the work finished with some delay, both moderators and participants commented they would have needed a longer time and that after the two rounds, people were entering the proposals' phase.

Even if moderators have participated to a coordination meeting the day before the workshop, the different backgrounds, experiences, origin, age and number of the participants in their groups (some groups were formed by 10-12 people, some others by 5-8) led them to use different approaches to manage the discussion and collect the results. All of them, however, used the provided materials and perfectly summarized the results of their groups by posters and direct presentations.

Moderators commonly underlined a general awareness about weaknesses and potentials but also remarked how participants encountered some difficulties when asked to exit from their own case and to indicate concretely how to turn very clear ideas in an efficient practice.

Feedback from the observers

Unimont students were involved as observers. They took part in both rounds and support the moderators.

Conclusions

The workshop had a high number of participants coming mainly from the Italian Alps. Many of them already knew the Mountain University, which has been able to create a strong local, national and international network. Different people with different profiles, experiences and expectations exchanged in small groups and during the final plenary session. The day started with a very ambitious objective: to agree upon one or two concrete actions to apply to mountain agriculture and mountain tourism at the end of the day.

Two best practices were presented during the morning and a high number of examples and good practices from the participants were collected. These inputs and ideas need to be transformed into action. It emerged that the Italian cultural situation plays a decisive role in the development or non-development of mountain regions. The workshop highlighted the importance of reducing the weight of the administration procedures that still prevent innovation and entrepreneurship from being successful in Italy. Moreover, the lack of a common and well-thought vision for the future has been mentioned. The workshop results underline a need for a switch in mentality, which should allow all the stakeholders to (1) better share their information and knowledge, avoiding short-term and politically-biased decisions (2) foster the cooperation among neighbouring villages, making efforts together instead of fighting against each other (3) involve the youth in the decision-making process, giving them a sense of belonging to the territory and listening to their ideas. In this sense, the participants stressed the role of education: on one hand because it is difficult to value

what you do not know, on the other hand because innovative solutions come easier when a person understands the framework of where he/she lives.

Some actions have been partially exposed by participants: they are very concrete, coming from people who have grown up in the mountain and that have seen their territory change and their youth leaving their home villages. All the measures they proposed (offering discounts to tourist who spent a certain number of days in the same place, didactic farm, stay in a shelter to experience a high mountain sunrise, offering free coupons to try food or sport activities, free bus tickets to discover the region among others) go towards the enhancement of local products, assets and traditions: most of them believe that promoting one local product would be beneficial for the entire region and for other business sectors. In this sense it was clear that agriculture and tourism are deeply related and that they need to support each other. In order to promote a mountain region participants suggested to play on the customer's passions and to attract him/her to come for a specific activity knowing that they will then have to access to other services (restaurant, accommodation, transport and clothing). In this regard, the thesis of Mr Luthe was fulfilled: more connected, more resilient.

Edolo was one of the six seeds that will be planted in the Alps during the workshop series. These seeds might need some time to blossom. Innovation and change take time, patience and a team of engaged people.

Circular economy is a business model that relies upon the fact that the waste of one business sector can be the input for another sector. The preliminary condition to make this model function is to collaborate and to share information. We need to improve this condition in order to be able to pass from a linear to a circular and green economy.

Inputs for the Action Programme

The workshop produced several recommendations that can be considered to prepare the Action Programme for a Green Economy in the Alpine area until the next Alpine Conference. Three key aspects were clearly identified by the participants, even if, differently from what expected, these are cross-sector recommendations for the Alps rather than specific actions to be applied to mountain agriculture or tourism. The different working groups also indicated approaches, which can be considered to pave the floor and move towards the Green Economy objectives as suggested in the RSA6.

More "WE", less "I": the necessity to create networks sounded to be the refrain of the day. Actually, the majority of the proposed best cases brought out collaborative aspects (different bodies, different regions and different municipalities) as the "plus" and the key for innovation. Participants underlined the necessity to collaborate, to share ideas, cases, practises and support within different players from the same sector (e.g. agriculture) or from different connected sectors (e.g. agriculture and tourism), between people of different ages, different bodies (enterprises, research bodies, public institutions, citizens - triple and quadruple helix model) and between consumers and producers. The possibility to get connected seems also to be a precondition to face the economic crisis, the bureaucratic bottlenecks and political deadlocks and to enable circular economy processes knowing each other while working together to create new market opportunities and innovation. This is even more evident in mountain areas.

1) Facilitate the creation of efficient networks and connect already existing networks

- Create concrete and useful opportunities to get to know each other, facilitate the relationship between different networks at the local, regional, national level;
- Provide professional and business training to support cross-sector collaborations and collaborative business projects;
- Support networks with professional and high quality service;
- Overcome the generational bias and consider the relevant contribution young generations can bring in.

Input 1 is in coherence with the RSA6 recommendation 4: Take steps to turn the Alpine area into a resource-efficient, circular and cost-effective economy. Resource efficiency needs to be improved, particularly in terms of water use, energy, material, land take and loss of productive soils. Moreover, possible measures and instruments in these fields should be promoted. These include smart energy-efficiency networks, consulting programmes and voluntary schemes for enterprises. Policies and programmes on resource efficiency should stress that efforts in this field lead to cost savings and thus create economic benefits.

Young innovators, young influencers: all working groups discussed about the relevance of the role of young people. They can develop a new sustainable economy, in line with the necessity for innovation and with the circular economy principles. Youth can promote innovative approaches, methodologies and business concepts but they need several key elements. First of all, a qualitative education, a strong knowledge about the fields they want to move into and the capacity to dialogue with different players. Second, they have to be given floor by older generations that are sometimes anchored to outdated management and business models, are scared by changes and prefer not to take any risk. The chance to create a well-trained young "task force" to turn the system into a more efficient and reactive environment was suggested.

2) Support entrepreneurs and start-ups[1]

- Provide everyone with a qualitative education (both cultural and scientific) at different stages of life and phases of the professional career;
- Provide entrepreneurs with professional training and innovative methodologies also by direct experiences, exchanges and direct collaboration with other entrepreneurs from different areas and countries;
- Support entrepreneurs with general as well as with GE-specific tools and services: e.g. how to prepare a business plan, how to apply for funding in the field of GE, new production techniques and methods in the specific sectors, language learning, specific communication skills related to GE topics, training in the field of co-operation with civil society actors;
- Inform and connect young people to existing networks and groups of interest;
- Promote young people cross-disciplinary collaboration and experimentation during their academic or professional career as well as in the market;

Input 2 is in coherence with the RSA6 recommendations 1.2: Green innovative businesses and start-ups need to be promoted on a regional level to facilitate eco-innovation for

---

[1] A particular focus on the role of youth and about specific measures that should be addressed to young entrepreneurs could be part of a separate section of the Action Programme.

technological and non-technological solutions; 1.3 The Green Economy approach should be integrated into regional strategies, e.g. by developing concepts for sustainable agriculture, forestry, energy, tourism or transport; 6. Use opportunities for the creation of green jobs and particularly 6.2 [...] support of innovation in small and medium-sized businesses, the creation of networking structures among all stakeholders of a Green Economy, the promotion of sustainable investments and the setting of incentives to stimulate the demand for environmentally friendly products, technologies and services at the private and public level and 6.3 Appropriate training and education measures for the present and future workforce should be implemented to develop the green skills that are needed for future jobs and to satisfy the needs of a Green Economy in terms of job qualifications; 7.3 The evolution of the job market towards green jobs should offer new opportunities of economic well-being and trigger a more socially inclusive development.

Communicate the comprehensive value of a product and of an authentic experience, communicate with quality and reach specific targets: communication was appointed as the "big absent". Many local, Italian and Suisse journalists had been invited to come to Edolo, but only three of them took part in the workshop. The idea of inviting them was to add an additional perspective and collect the opinion of professional dealing with journalism and communication. Only three local journalists joined the workshop and all working groups underlined the evident gap existing between their experiences, the best cases they reported and the communication world. A general not-consideration and weak knowledge of the assets available in the territories (cultural, natural, social, economic, etc.) were indicated as main causes of the media silence together with deficiencies of local stakeholders to generate interesting and appropriate contents for dissemination. In many cases, it is journalists themselves needing to discover stories and experiences because the bodies running them are not aware of the possible impact of a well communicated action. Understanding the value of the territories also means to understand innovation processes, how this can merge tradition and novelty and how it can produce a quality of live for people. These qualitative contents need qualitative communication to become concrete actions. All working groups indicated communication as the way to reach different targets, support business opportunities which combine different professional fields and can also be based not on specific market segments but rather on "unconventional" assets, such as human needs, desires and passions.

3. Train and support young professionals, in particular creating awareness about the potential power of communication

- Offer entrepreneurs, policy makers, investors and other stakeholders' education and training about the potential power of communication and the tools to be used. These trainings could be offered by universities and other educational institutions;
- Offer entrepreneurs support to produce qualitative and modern media contents starting from the recognition and valorisation of the specificity and assets from their territories, which can be of interest for media;
- Offer journalists training and services to produce a better and more aware communication about the innovative cases available in their area, involve them since the very beginning in processes and projects, provide them with a virtual time-saving place where to find all useful information for their work about a certain content;

-   Create opportunities for media representatives to experience real Green Economy examples in mountain territories.

Input 3 adds on the RSA6 recommendation 8.3: A knowledge pool for a Green Economy in the Alpine area should be created and maintained, as this is an essential step for the promotion of this concept, opening a new focus on the importance of communication.

ANNEX

Agenda
List of participants

CONTACT
elisa.agosti@cipra.org
CIPRA International
Cipra.org

AGENDA

10.00 - 10.10   Opening with greetings
Anna Giorgi - Unimont, local authorities and Unimont partners, GE-Team

10.10 - 10.20   Presentation of CIPRA International and of the general framework of the workshop
Elisa Agosti – CIPRA International

10.20 - 10.25   Short presentation of workshop aims and agenda, organisational issues
Facilitator

10.25 - 10.45   Short presentations of the participants
Facilitator, all

10.45 - 11.15   GE, RSA6 and the Action Programme
Luca Cetara - Marianna Elmi
Italian Delegation to the Alpine Convention
Italian Ministry for the Environment Land and Sea

11.15 - 12.00   Keynote - Circular Economy in Agriculture and Tourism
Valentino Bonomi, young entrepreneur, owner of the Azienda agricola "San Faustino" Ceto - BS, IT and Anna Giorgi, Unimont
New farming, new farmers in the Alps. An innovative approach to tradition, towards a circular economy
Tobias Luthe, researcher at the University of Applied Sciences HTW Chur, CH
More connected, more resilient - tourism and a circular economy

Q&A

12.00 - 12.50   Work Group 1st round - Mountain Farming
8 groups with facilitators
Presentation of good practices examples from the RSA6
Discussion of needs and success factors
Are there any similar experiences in which the group members are involved/of which they know of? What experiences are shared, what experiences are different?
Can these examples be transferred to other Alpine regions?
What is innovation in Mountain farming? How can we measure it?□

12.50 - 13.20   Light lunch & exchange

13.20 - 14.10   Work Group 2nd round - Mountain Tourism
8 groups with facilitators
Presentation of good practices examples from the RSA6
Discussion of needs and success factors
Are there any similar experiences in which the group members are involved/of which they know of?
What experiences are shared, what experiences are different?
Can these examples be transferred to other Alpine regions?

blue! advancing european projects   CIPRA LIVING IN THE ALPS   spatial foresight

What is innovation in Mountain tourism? How can we measure it?

14.10 - 15.00 Work Group 3rd round
8 groups with facilitators
Discussion among the groups on the two topics to discover a final action
How can we bring our ideas and intentions into life?
Which are the next steps towards action? What is up to us?
Who can support us?
What players need to be involved to bring the idea into action?

15.00 - 15.15 Coffee break

15.15 - 15.45 Synthesis of work group results
facilitators

15.45 - 16.00 Conclusion
Anna Giorgi, Unimont, GE-Team

List of participants

Name	Institution
Agosti Elisa	Cipra International
Alborghetti Daniele	Università della Montagna - UNIMI
Aricocchi Teresa	Università della Montagna - UNIMI
Bana Germano	Vini e Cucina Bresciana
Bigaran Federico	Provincia di Trento
Bischetti Gian Battista	Corso di Laurea di Edolo
Bonomi Valentino	Azienda agricola "San Faustino"
Bonzi Fabio	
Bottoni Flavio	Coldiretti Sondrio
Camerlenghi Filippo	AIGAE Associazione Italiana Guide Ambientali Escursionistiche
Camilucci Stefano	"La Valle" Società Agricola di Pezzola s.s.
Capitanio Giuseppe	Cooperativa Il cardo
Carrer Matteo	Università degli Studi di Bergamo
Cetara Luca	EURAC
Chiatante Donato	Università degli Studi dell'insubria
Clerici Augusto	
Cortinovis Manuel	Università della Montagna - UNIMI
De Matteis Raffaele	Università della Montagna - UNIMI
del Barba Oscar	CAI Club Alpino Italiano
Della Torre Cristina	EURAC
Dell'Osa Enrico	Azienda Agricola Dell'Osa Enrico Isaac
Di Giovanni Mauro	
Donati Marzia	Rifugio Petit Pierrre
Droli Maurizio	Università di Udine
Elmi Marianna	Segretariato Permanente Convenzione delle Alpi
Fenoglio Stefano	Università Piemonte Orientale
Fioletti Gabriella	Assorifugi
Forchini Maurizio	Agenzia Promozione Turistica Promoserio
Furlani Matteo	Cantina Furlani
Gasparotti Claudio	Studio Aura
Gheza Francesco	PiùValliTV
Giorgi Anna	Università degli Studi di Milano
Gretter Alessandro	Fondazione Edmund Mach
Holzer Magdalena	Alpine Town of the year
La Greca Francesca	Regione Piemonte
Lancini Stefano	Az agr GeneraTerra
Lingua Guido	Università Piemonte Orientale
Lorenzon Giulia	Università della Montagna - UNIMI
Macchiavelli Andrea	Università degli Studi di Bergamo
Maculotti Giancarlo	Circolo Culturale Ghislandi
Maffezzini Tiziano	Uncem Lombardia
Maggioni Roberto	Maggioni Tourist Marketing
Manzo Alberto	MIPAAF

Martinelli Antonio	Montagne e Paesi
Masneri Luca	Comune di Edolo
Mazzoleni Alberto	Coordinamento Comunità montane lombarde
Melotti Paolo	Guide Alpine Vallecamonica-Adamello
Monopoli Marco	Educatore ambientale
Moranda Giovanni	Dottore Agronomo
Orsatti Eliseo	Confartigianato
Pesce Alessandra	Ministero Politiche Agricole
Petriccioli Enrico	Fondazione Montagne Italia
Pilotti Luciano	Università degli Studi di Milano
Piva Claudio	Coldiretti
Putelli Alessandro	Comunità Montana Valle Camonica
Quarta Mariagrazia	Regione Piemonte
Ricci Stefano	Maestro Sci
Salsa Annibale	Scuola per il Governo del Territorio - Trentino School of management
Sangalli Marco	Ordine Dottori Agronomi e Dottori Forestali di Brescia
Santoni Sandra	Università della Montagna - UNIMI
Spagnoli Sonia	Az. Agricola La Casera
Svaluto Ferro Pierluigi	Federbim
Tomaselli Giulio	
Tomasoni Ilaria	Università della Montagna - UNIMI
Toretti Silvia	Consorzio Vini Valcamonica
Tosana Giovanni	Biodistretto Valle Camonica
Treu Vanni	Cooperativa Cramars
Troletti Federico	Centro Camuno Studi Preistorici
Venuta Maria Luisa	Fondazione Luigi Micheletti
Zampatti Crescenzio	Guida Alpina
Zani Magda	Guide Alpine Vallecamonica-Adamello
Zanini Sara	Università della Montagna - UNIMI
Zilio Emanuela	Università della Montagna - UNIMI

Workshop

9 and 10 November 2017

Villach, Austria
Alpine Town of the Year

"Alpine Towns as pioneers for Green Economy"

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

BASEL (CH)
13 November 2017
Eco-innovations

IMMENSTADT (DE)
27 September 2017
Susfainable use of natural resources

VILLACH (AT)
9-10 November 2017
Role of municipalities and cities

EDOLO (IT)
25 October 2017
Circular economy

GORIZIA (IT)
29 November 2017
Green finance for innovation

GRENOBLE (FR)
14 November 2017
Climate change, energy and construction

blue! advancing european projects

CIPRA LIVING IN THE ALPS

spatial foresight

List of Content

Abstract

On 9 and 10 November 2017, with support of the German Environment Agency and the Permanent Secretariat of the Alpine Convention the workshop "Alpine Cities as pioneers of a Green Economy" in Villach (Austria) took place. As early as October 2015, representatives of Alpine towns and the business community received input on the Sixth Report on the State of the Alps of the Alpine Convention within the framework of a workshop in the Alpine town of Trento. This cooperation went now one step further in the direction of action. The following questions guided the workshop:

- How can Alpine towns and cities be an attractive "green" business location that facilitates innovation and keeps traditions alive?
- How can Alpine towns in the fields of agriculture and tourism support sustainability?
- How can Alpine towns and cities support Green Economy in the areas of mobility, transport & smart cities?

The workshop was held in German, Italian, French and Slovenian language and led to following conclusions.

Alpine towns can contribute to foster a Green Economy in the Alps:

Ambitious and "pioneering" decisions by the Alpine towns. Alpine towns should be good examples in the decisions they take regarding the way they are managed and the services they offer to the population. As far as possible, when taking decisions in their field of competences, they should choose options in line with Green Economy targets.

> **Possible measures:**
> - Deciding in favour of sustainable mobility means by reactivating, modernising, developing or creating attractive public transport infrastructures and services;
> - Banning chemical substances from public parks and gardens or installing self-dimming street lights to save energy.
> - Choosing to limit land reserves for new constructions and to oblige or encourage builders to renovate and increase density, in order to preserve intilled land for nature and agriculture.

Alpine towns should be smart cities and "living laboratories". By adopting ambitious and visionary solutions, the Alpine towns offer inhabitants positive benefits and attract companies to settle. Beyond decisions in their day-to-day management, Alpine towns can engage and foster pilot projects, together with research institutions, for example, aiming at developing new services and approaches. Not only should municipalities implement their own projects, they should also be open to any positive contribution from inhabitants or companies, contributing to the development of a Green Economy.

Possible measures:

- Offer specific room, means and services, to help Green Economy project proposals emerge, start, grow and multiply.
- Pilot projects to improve the use of artificial intelligence to use resources in a more efficient way, support sustainable mobility, etc.
- Pilot projects to improve waste reduction and management.

Search and strengthen cooperation with companies. It is of major importance for Alpine towns to search and strengthen cooperation with various types of companies to urge them to develop services and products and adopt management and production strategies in line with a Green Economy transformation.

Possible measures:

- Cooperation with public transport companies to promote sustainable transport,
- Cooperation with local companies owning large buildings, to develop renewable energies or roof-top gardening on the roofs
- Working with housing and real estate companies to accelerate energy-efficient renovation of buildings by.

Generally, the "Alpine Towns of the Year" are already quite aware of needs & possibilities of how to foster Green Economy in the Alpine region. Numerous practical examples of such action were presented and discussed in the groups during the workshop. These examples can be used to inspire the planned Green Economy Action Plan of the Alpine Convention.

To be able to do their share of work, Alpine towns need close cooperation with and support from European, national and regional authorities:
Ambitious and compelling goals. Such goals need to be set for everybody at European, national or regional level, be it in climate change, biodiversity, spatial planning or other fields.

Adapting European, national and regional legal framework. Numerous legal instruments oppose the development of a Green Economy by setting standards and obligations that make it difficult for municipalities to choose sustainable solutions. This framework needs to be revised and adapted to favour a Green Economy. Again the range is wide from the field of transport, to energy, education and many more.

Allowing for decentralised, local decisions. This is particularly true in the more centralised countries, such as France and Italy, where locally adapted solutions may be blocked by a general national programme or legal framework that does not take into consideration local cultural, economic, climatic or geographic specificities.

Supporting local authorities in their efforts in favour of Green Economy. European, national and regional authorities need to support local authorities with financial and human resources to implement measures in favour of Green Economy. Many solutions cannot be designed and implemented at European, national or even regional

level, and need to be tailor made at local level. However, local authorities, in particular the smaller ones, do not always have the means to implement the solutions. They need to get support for this.

Figure 1: Group picture.   ©CTR

Minutes of the workshop

What is Villach doing in the field of Green Economy?

Input **Petra Oberrauner** (deputy mayor and responsible for economic issues in the Alpine town Villach)

- Villach is member of the Climate Alliance. The city hosted the first World Climate Summit in 1985. Bluntly said, Villach was the initializing point for the Paris Climate Summit.
- Objectives of the Climate Alliance: 10% reduction of CO_2 every 5 years. Villach is also an e5-municipality (network energy efficient municipalities) and could fulfil the demands within a very short time. Lots of public funds are invested in this field.
- Villach follows its own energy policy: objectives are formulated in a broader way. In this way also enterprises have been reached. Carinthian tech research CTR is an example: Lead has been substituted with silver in photovoltaic (PV)-panels, as the material is more efficient and more environmentally friendly. This issue has been started in a pilot project. PV generally is a big topic for Villach; Austria's first community owned PV-power plant is situated in Villach.
- More than 9,000 trees are growing in the city of Villach and research is done in this field in terms of climate change.
- Concrete measures for climate protection: Leader in recycling; only 3% of households do not recycle properly; for the rest, fees are calculated due to the respective amount of waste. The municipality budget has to be balanced. The number of visitors in the recycling centre increased from 40,000 to 60,000 since the introduction of this measure.
- Villach together with a working group has initiated the "Re-use" project. Within these project home appliances are collected and repaired with clients under the supervision of skilled workers. A local energy supplier (Kelag) is now taking part in that measure (supports purchase of energy saving appliances).
- Villach is also a smart city: their goal is to offer the technology where society benefits from. As an example, information on which roads are congested or automatic dimming of illumination. The overarching goal is to transform the town into a living laboratory.
- Companies shall be motivated to settle down in Villach through the smart city approach; Green Economy exists and does have a positive impact on every day's life. Funding for construction of housing is tied to the installation of PV and solar energy.
- Small competition: Environment and Energy Award of Villach; around 60 projects applied (topics reach from children to energy saving); Audience award: 9000 votes (from 600 two years ago).
- Villach invested 4 million Euro in the research centre CTR. Currently, they implement an E-Mobility pilot project.
- Other small initiatives: "Bike butler" (supports shoppers);

Excursion to Carinthian Tech Research CTR

The Municipality of Villach considers the Carinthian Tech Research Center (CTR) as one of the examples of Green Economy in their territory. Since 1997, the CTR AG develops state of the art technologies in the field of intelligent sensor control and system integration for partner companies to make their products and processes simpler, safer and more effective. The R&D centre is therefore the connecting link between research and commerce. It enables enterprises to benefit from the latest R&D results and to significantly strengthen their innovative capacity and competitive ability.

- The city of Villach is one of the owners of CTR. Villach holds 10% of the shares. The other shareholders are Fraunhofer Society for the Advancement of Applied Research, BABEG and the Federation of Carinthian Industry.
- CTR has a low base financing. Most financing comes from funding for research from the industry.

Figure 2: The participants of the workshop got an insight in the work of the Carinthian Tech Research Center. ©CTR

Discussion in plenary

How can Alpine Towns be an attractive business location with green responsibility, that enables innovation & maintains tradition? Which public policy framework helps to improve Green Economy in this sense? What are the other Alpine Towns doing in the field of Green Economy?

Belluno

Belluno is putting a focus on energy efficiency and social aspects. In the framework of the conversion of abandoned spaces, activities with underprivileged persons, the involvement of young people and a creative approach are foreseen and have already been put into practice. Belluno will put this process into practice step-by-step. As an example: the former barracks have been transformed into a theatre, the local library is now used as a youth centre.

Morbegno

Morbegno has realised a range of activities in the field of Green Economy:

- The illumination in the city centre has been replaced by led-lamps;
- The energy efficiency of public buildings has been increased;
- Distance heating with gas and biomass;
- Consistent network of cycling and walking paths;
- "Requalification" of areas: forests and meadows;
- Re-establishment of olive cultivation on terraces.

Lacks: Uncertainties concerning continuity of funding and projects, difficulties in maintaining networks

Idrija and Tolmin

Economy: Following contributions of industry to green innovation already exist:

- Electric industry which develops advanced systems for automotive industry;
- Energy from renewable resources (biomass, hydropower, PV);
- Energy related renovation of buildings;
- Sustainable construction;
- Co-working (Tolmin).

Economy: Qualified workers are missing (→Training), especially for these topics:

- Smart electric grids;
- Smart systems;
- Educated work force.

Agriculture: Value contribution of local initiatives

- Food processing industry with local products (milk, cheese, meat, honey);
- Local cuisine (recognised brands –Tolminc cheese, Idrija žlikrofi);
- Cultural landscape;
- Local food supply chain.

Need to do: Agriculture: Support certification of ecological products, Ewald Galle, Austrian Ministry for Environment, proposed a label for mountain products and organic products. This proposal will be considered in a following discussion with the Alpine Towns.

Infrastructure: Municipalities as example, role model (e.g.: Infrastructure)

- Water cycle;
- Public lightening;
- Waste management.

Need to do: Improve infrastructure

- Better infrastructure (accessibility);
- E-Mobility.

Tourism: Announce green orientation of town:

- Green destination;
- Cultural tourism;
- Fly fishing;
- Outdoor sports;
- Man & biosphere;
- UNESCO label;
- Geopark Idrjia.

Tourism:

- Sustainable tourism.

Need to do: Foster accommodation structure and capacity in Idrija and Tolmin, both towns do not have enough hotels, guesthouses and restaurants. The city Morbegno faces the same challenge.
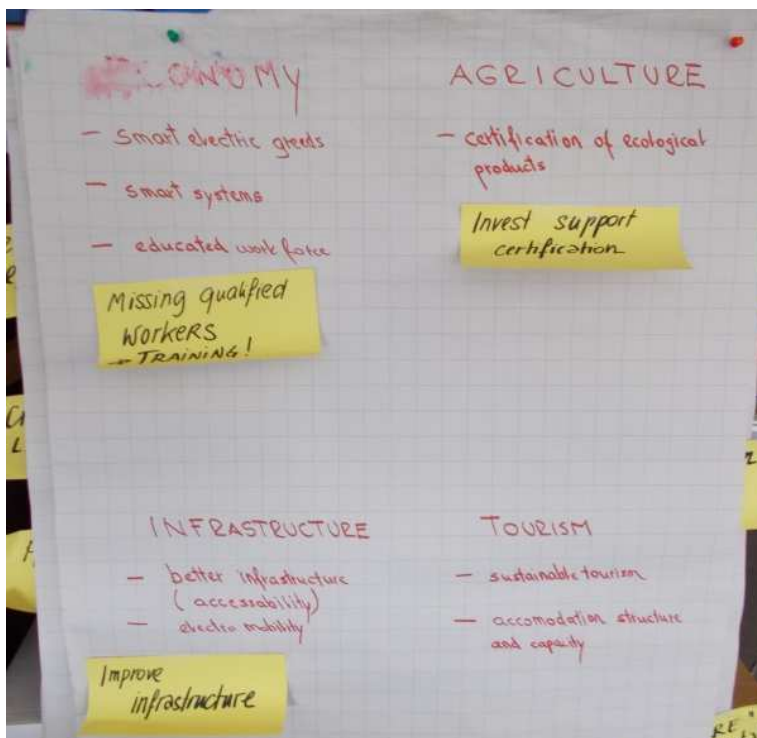
Figure 3: The discussions were held in linguistic groups. Here part of the results of the Alpine Towns Idrija and Tolmin.

Annecy

Economy - Status Quo Annecy:

- There are no specific actions to attract Green Economy companies;
- Some actions have been put into practice to accompany circular economy from private actors;

- Zero waste territory/town: (http://optigede.ademe.fr/territoires-zero-dechet-zero-gaspill-age, in French language).

Need for more autonomy. Competences in France are concentrated at national level; munici-palities lack autonomy. For example, the centralisation of energy suppliers (e.g. regarding the distribution of electricity or the hydrogen industry – there are companies in the area, but you have to apply in Paris for funds to create projects).

Sonthofen

- Lack of spaces for trade/industry → a military area of 33 ha will be free in the city centre, the development of this area will be elaborated with citizen involvement;
- Handicraft has a strong position;
- "Bicycle-town" Sonthofen;
- Town sets own initiatives: biomass for example;
- Increasing density towards the centre is very important for Sonthofen, so no big industrial areas will be created but small local commercial initiatives are fostered within the city centre;
- Sonthofen is a "Fair Trade Town".

→ There are many small enterprises; and there is no big demand for Green Economy.

Brig-Glis

- No industrial history.

Bad Reichenhall

- Spa town, tourism, salt mine;
- Potential: wood, food, sustainable tourism, keeping clean the river Saalach.

→ There is simply no space for new companies

Bressanone

Service and industrial sector is quite strong.

- Problem: demand for space, space surface became very expensive;
- Active settlement policy; regional inter-connection;
- PV, energy efficiency and waste are important to a high number of sustainable compa-nies;
- The town is fostering tendering local products, e-mobility.

→ "Green" in the area of the municipality; Broad understanding of Green Economy.

Workshop – Group discussion "agriculture"

What are towns already doing to foster sustainable agriculture?

- "Raccolta nel campo" (harvesting in the countryside) → supported by town (Trento);
- Events to foster diversity in agriculture: "uovo di selva" (eggs from the woods), this leads to clean forests (Morbegno);
- Organic, local nutrition in primary schools;
- Foster local production of organic food: meals in canteens owned by town (Annecy);
- Old varieties are cultivated (Bad Reichenhall);
- Problem: farmers produce mainly products from milk; demand for vegetables is there but no supply → town tries to promote cultivation of vegetables by lending fields to new farmers, also trainings are offered (Annecy);
- Problem: high prices for land; pressure on agriculture → solution: New approaches in urban planning (in Grand Annecy now task of the agglomeration);
- In Chamonix there is more and more demand by young people to work in agriculture; town supports that with financing
- Annecy: town calls on farmers and other stakeholders to recognize their social responsibility and to diversify agricultural strategies;
- In Morbegno it is an objective of the town to maintain mountains and nature. The area was once only a place for agriculture, now it is used more diversely; it is important to maintain heritage like the "terrazzamenti", terraces build to create a larger surface for agriculture.
- In Bad Reichenhall the town has supported the establishment of an UNESCO-Biosphere-reserve. Old varieties are now cultivated again (special type of wheat). The output is lower, but consumers are willing to pay more.
- The diary in Bad Reichenhall accepts only milk from farms which work without the use of glyphosate.
- Small farms in Bad Reichenhall can achieve additional income by doing works for the "Landschaftspflegeverband", an association for the protection of the landscape by fighting against neophytes.
- In Bad Reichenhall the town supports the project "So schmecken die Berge", which foresees that in Alpine huts around the town only local products are sold.
- Trento has the largest agricultural area in Trentino. Their main products are wine and apples. One objective is to strengthen small producers.
- In Trento the "giornata di mercati", the market day is established which brings the local agriculture in the heart of the towns.
- Trento offers special trainings to reduce waste of food.
- Within the "consorzio agriculturali", the agricultural associations the decisions were made on (higher) level. Now small producers demand more influence (Trento).
- Morbegno tries to link with other regions in terms of agriculture.
- Trento developed together with the Trento University the project on healthy nutrition "Nutriti Trento".
- Producers in Morbegno concentrate on unique products (cause: big economies nearby).
- In Morbegno the town tries to create new jobs by maintaining traditions.
- In Chamonix the municipality supports "jardins partagés" (shared gardens).

- In Chamonix there is a project, where tourists/citizens bring a kilogram of salt up to the alp, where around 800 sheep are grazing.
- In Annecy the municipality bought 2 Alpine huts in order to safe cultural heritage but also to create space for new initiatives.

What are towns planning for the future?

- In Chamonix the town is looking for solutions how to open farms for new agricultural initiatives (consortium privé). Especially shared gardens should be promoted.
- In Annecy the agglomeration wants to convince farmers to diversify their production (promote cultivation of vegetables), so that the demand for local products can be fulfilled.
- The agglomeration Grand-Annecy also wants to make aware of the social responsibility that agriculture has. In order to diversify production, cooperation with the local chamber of agriculture should be established.
- The Alpine Town of the year association will discuss the proposal of Ewald Galle, Austrian Ministry for Environment on a joint label for mountain products or organic products.

Figure 4: Claire Simon presents the collection of ideas.

Group discussion: What are the Alpine Towns doing in the field of sustainable tourism?

What are they already doing in this field?

- In Bad Reichenhall the town tries to establish better conditions for soft mobility. In order to foster public transport, the town has established a linked public transport system with Salzburg. At strategic points, the town has also set up trail and route maps to promote walking and cycling.
- Bad Reichenhall is also a model-town for natural gas mobility. The town supports the purchase of cars fuelled by gas with 500 €. To take measures to improve air quality is especially important for Bad Reichenhall, as it is selling the good quality of air since 1846 as spa town.
- Bad Reichenhall has also developed a tourist information system for sustainable activities. Goal is that people leave their cars.
- In Morbegno agriculture and tourism is very much linked.
- One good example for the success of sustainable tourism is the "ecolabel-ostello" (hostel) in Morbegno. As normal occupancy rates show 20%, the hostel has a rate of 55%.
- In Trento tourism has become a more important sector. Also a consequence of the Alpine Town of the Year title?

What are towns planning in the future?

- In Annecy many inhabitants have the feeling that tourism (especially at weekends) has become too big: too many cars, too many events. The agglomeration now wants to set up a strategy to stop guests coming by car.
- Trento wants to improve quality of tourism. It's a project the town is already working on (also with help of students).
- In Morbegno the town wants to support the creation of "Alberghi diffusi". They have a high potential.
- The town of Trento wants to analyse the image of Trento in social media channels in order to improve quality in tourism. To do this the town employs three students every six months.

Group discussion "Soft Mobility"

What are towns already doing for soft mobility?

- Annecy has restrictions on circulation in the inner city center;
- Ongoing "decarbonisation" of mobility and investment in bicycle lanes as well as public transport is an objective of Annecy;
- Investments in public transport;
- Bressanone has restricted traffic in the old town centre;
- City bus in Bressanone has over 1 million passengers yearly.

- 250,000 Mobility Card users;
- Reintroduction of nightline bus;
- Bressanone/Plose rail link refused by citizens: no more referendums, citizens will now be more directly involved in policy deliberations.
- North-South-East-West bicycle path, passing through old town centre;
- Chamonix is investing in e-mobility: bus fleet is replaced with hybrid models and charging stations have been installed;
- Train connections are more frequent now in Chamonix and public transport in town is for free;
- Joint local and national-level investment in regional cycle lane networks is happening in Idrija;
- In Idrija transport system co-financed by 2 municipalities for school children and those using the shopping centre.
- Partial closure of the historic town centre of Idrija to traffic.
- City bus was reintroduced in Sonthofen.
- Sonthofen has introduced a bike scheme and has established solar powered e-bike charging stations.
- Two initiatives in South Tyrol: "Südtirol pass" and pedibus initiatives for schools.

What are towns planning for the future?

- Annecy wants to expand cycling infrastructure and increase safety for bicycle users and wants to introduce better rail connections;
- More shared mobility that is "decarbonised" and improved information for mobility by bicycle (Annecy);
- Bressanone wants to connect the industrial park with the centre using a "light Metro" system.
- In Chamonix "last mile" policies and integrated e-transport programmes with Valle d'Aosta are objectives;
- More car-sharing is another objective of Chamonix as well as train lines to be better adapted to local situation;
- Idrija has created incentives for the young people to use public transport in free time and not just for school travel;
- Cooperation with Hitachi and national energy network to increase e-vehicle charging stations in Idrija;
- E-bike charging station network;
- Smartphone-friendly info portal to educate citizens on existing measures, and integration of portal with car-sharing services.
- Close the "last mile gap" in tourism in Sonthofen.
- Introduce vehicle sharing for transport of goods? (Sonthofen)
- Balance between city logistics and citizens' needs/wishes and better coordination of smart tourism.

ANNEX

Agenda
List of participants

CONTACT
Alpine Town of the Year association
office@alpenstaedte.org
www.alpenstaedte.org

Agenda

Thursday, 9th November 2017

14:00 - 14:10 Opening with greetings
Thierry Billet, President of the Alpine Town of the Year association
Richard Landgraf, German Environment Agency

14:10 - 14:15 Short presentation of workshop aims and agenda, organisation issues
Claire Simon, director of the Alpine Town of the Year association, moderation

14:15 - 14:30 Input by Villach: Activities in the field of Green Economy & initiatives to foster it
Petra Oberrauner, responsible for economic policies, Alpine Town Villach

14:30 - 16:00 Excursion to CTR Villach
Birgit Rader-Brunner, CTR

16:00 - 16:30 Coffee break

16:30 - 17:45 Discussion in plenary:

How can Alpine Towns be an attractive business location with green responsibility, that enables innovation & maintains tradition? Which public policy framework helps to improve Green Economy in this sense?

17:45 - 18:00 Presentation main findings in plenary

18:00 Closing

Friday, 10th November 2017

9:00 - 10:30 Group 1 - question 2: How can Alpine Towns support sustainable agriculture & sustainable tourism activities and companies?

Group 2 - question 3: Mobility, Transport & Smart Cities: how can Alpine Towns support Green Economy in these topics?

10:30 - 11:00 Summarise findings/learnings
Summary of results from the different working groups
Outlook next steps of Green Economy Action Programme, other workshops, online platform, closing words

11:00 - 11:30 Coffee break & Closing

Workshop

13 November 2017

Basel, Switzerland

"Eco-Innovation supporting a Green Economy in the Alpine region"

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

List of Content

On 13 September 2017 the workshop "Eco-Innovation supporting a Green Economy in the Alpine region" was held in Basel, Switzerland. The workshop was organised in cooperation with the Interreg VA Upper Rhine project "Upper Rhine Cluster for Sustainability Research". It brought together about 20 participants from German and Swiss Alpine regions, who represented research institutions, NGOs and public authorities working on different approaches for enhancing eco-innovation in different sectors and bringing them into application.

Opening

Prof. Paul Burger from the University of Basel gave a warm welcome to the participants. He summarised the focus of the University in relation to sustainability research and emphasised the need for cooperation across borders in support of eco-innovation.

1.3 RSA6 recommendations

Figure 1: From Mr Landgraf's presentation on the RSA6.

Richard Landgraf, representing the German Environment Agency set the frame of the workshop in relation to the Alpine Convention and the sixth Report on the State of the Alps (RSA6) and the development of the Action Programme. In particular, he highlighted the recommendations of the RSA6, which, inter alia, requested the preparation of an Action Programme enhancing the implementation of the RSA6.

Keynote

The keynote speech "Eco-Innovation supporting a Green Economy in the Alpine region" by **Dr. Joahnnes Heeb** from seecon GmbH set the frame for the discussions. Dr. Heeb highlighted how existing resources need to be brought together with local and regional

opportunities to create eco-innovations that can become viable. By means of different examples he showed how opportunities based on endogenous resources may be identified. In order to do so, it requires reducing the complexity of processes to small local aspects.

The examples also showed that eco-innovation may require coordination across borders for different reasons. For creating incentives and market viability approaches to purely circular local flows are not sufficient. A certain degree of interregional export orientation is needed as 'flywheel'. Enhancing eco-innovation, furthermore, requires a framework and culture that supports creative people who can develop opportunities based on local resources into eco-innovations and bring them to the market.

Figure 2: Johannes Heeb giving his keynote.
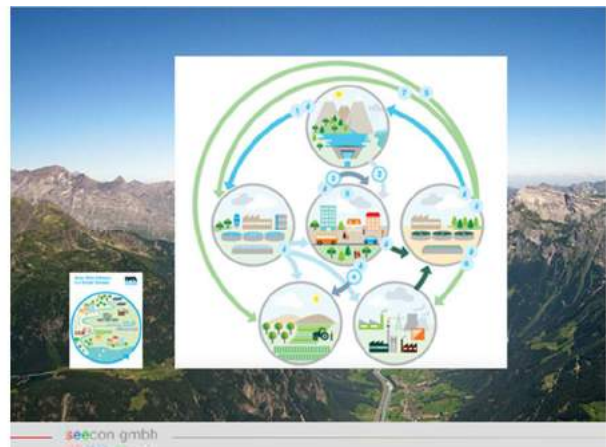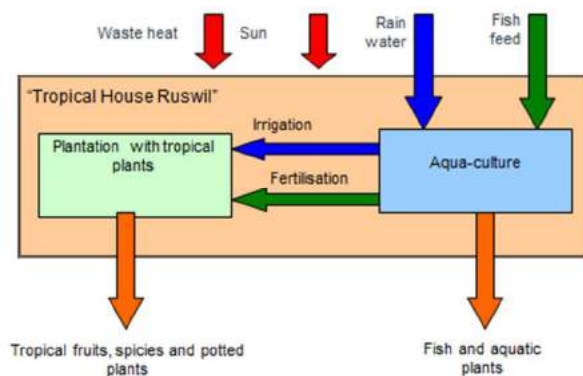
Figure 3: From Dr Heeb's presentation on the rationale of the tropical house in Ruswil (left) and circular water pathways (right).

Working groups

Two parallel working groups were at the centre of the workshop. These working groups discussed different approaches in supporting a Green Economy in the Alps. The starting points for discussion were following examples:

- The **Upper Rhine Cluster for Sustainability Research** – a project of the Interreg VA Upper Rhine Programme that aims at strengthening the collaboration in sustainability research along the Upper Rhine area;

4

- The **S3-4AlpClusters** project – funded by the Interreg VB Alpine Space Programme that works on bridging the link between strategic innovation goals and enterprises to develop and implement innovations.

Working group "Upper Rhine Cluster for Sustainability Research"

The practice

The Upper Rhine Cluster for Sustainability Research (URCforSR) engages the universities of 'Eucor – The European Campus' in Basel, Freiburg, Karlsruhe, Mulhouse and Strasbourg, the University of Koblenz and Landau with its location Landau as well as various universities of applied sciences and research institutes as associated partners. The project is financed by the Interreg V Upper Rhine programme and Swiss partners to strengthen the research and innovation infrastructure in the region. The project lasts from 2016 to 2018 and the project partners aim to extend the duration of the endeavour.

The URCforSR strives to establish a research association with European significance. The results of joint cross-border and interdisciplinary research activities will be spread to the society through a far-reaching transfer of knowledge.

The research activities are geared to the comprehensive subject matter "Governance of Sustainable Growth", which is subdivided in five fields of investigation:

- Governance,
- Energy, infrastructure and social change,
- Transformation processes and technologies,
- Resource management,
- Multiculturalism and multilingualism.

The representatives of the Upper Rhine Region expect that the research activities in this field contribute to better decisions for the future development of the region. This support was rather weak in the past due to the lack of an institutionalised, interdisciplinary and cross-border oriented research culture and research cooperation. The cluster is foreseen to overcome this weakness and to create innovation, which is applicable within the region.

The topics Eco-Innovation and Green Economy are central for the research agenda of the URCforSR.

In the field of transformation processes and technologies the researchers investigate how transformations will affect the functional principles of human communities as well as the way in which big industry groups bring their technologies in line with the requirements of a Green Economy of the future. To identify shortages and innovative solutions towards a more sustainable society, interdisciplinary efforts are essential.

As an example a group of researchers deals with the topics of sustainable innovations and entrepreneurship. It brings together researchers who consider drivers and barriers of a sustainable development and a sustainable entrepreneurship, especially in the field of promotion of a Green Economy. Among the topics are chemical and biological principles for a development and an implementation of green chemical and biotechnological products, the promotion of a transition towards a more sustainable economy or an analysis of existing risks as well as political and economic incentives for a promotion of new

innovative businesses in the tri-border region. Further possible topics are issues of knowledge transfer, the implementation of dynamic adaption processes within firms as well as various aspects which are often summarized using the umbrella term Corporate Sustainability.

Another field of research is represented by the provision of energy – including distribution and consumption – which belongs to the basic requirements of a sustainable development. The transition from the predominant energy system constructed in the 70s and 80s to a more decentralised system that comprises more renewable energy already is in progress.

However, there are still lots of unanswered questions, especially with regard to the interactions between the transformation of energy systems, the required infrastructure and the interactions with other resources. These questions do not only refer to technologies but also to their management, the connected institutions and social perception and acceptance, which, on the one hand, are subject to a permanent change and, on the other, depend on different cultural frame conditions in different countries.

FURTHER PROJECT INFORMATION
www.sustainability-upperrhine.info/de/home/

Dr Stephan Schmidt
Upper Rhine Cluster for Sustainability Research
University of Basel
Stephan.schmidt@unibas.ch

Discussion

The discussion revealed a set of **success factors**, which need to be considered for further activities at cross-border or transnational level in the Alpine region.

A first group of factors refers to the **general framework conditions**. A network that enables and facilitates cross-border cooperation of researchers needs well-developed infrastructures, e.g. a management team that coordinates and integrates the various activities strategically as well as contact points, which support the process on project level. Setting up, maintaining and further developing such a network infrastructure requires resources. Besides the general infrastructure, a research cluster also depends on institutional and political backing on different levels. Finally, if the research network focuses on its role as enabling player, internal and external funding sources need to be identified. Eligibility criteria should not hamper cooperation, for instance, by excluding players from certain countries.

A second group of key success factors refers to the **multi-dimensional and integrative character** of cross-border research cooperation. For making a difference as compared to national research networks, it is crucial that the players consider the different languages, cultural and institutional backgrounds of added value for their activities and make actively use of them. Furthermore, cross-disciplinary approaches are important. If a joint challenge is addressed from various angles, new perspectives are taken on board and new approaches to tackle certain issues can become visible.

Figure 4: "URCforSR" working group.

In this context, however, shared reference points for research activities need to be identified, such as a joint challenge or need. For the Upper Rhine Valley the most obvious reference point would be the river Rhine.

Thirdly, **time and timing matter**. Setting up a research network or cluster takes time, especially in the beginning. Hence, it is important to show the added value of such cooperation at an early stage. It can therefore be useful to start with existing cooperation, consider their experience, learn from them and increase their visibility. Especially in the long-run, it is important to develop flexible yet stable structures and this way create an environment that allows new players to join the process and supports established and experienced players to further develop and stabilise their cooperation.

The fourth group of success factors refers to **activities for knowledge transfer** that are paramount for strengthening the Green Economy to allow research results to actually create an impact. Transfer can take place on different levels and be related to different target groups, forerunners and multipliers in the business sector (chambers, enterprises) and the public sector (municipalities, regions), but also within the research sector.

Besides key success factors for research networks and clusters, potentials to territorially expand the URCforSR approach from the Upper Rhine to the Alpine region was discussed regarding the necessary processes, possibly relevant topics and what needs to be done to initiate such a process.

The first element refers to the abovementioned point of joint reference points. It needs to be clarified first, which research questions are of actual **relevance for the Alpine region**. From the background of the URCforSR project, it would therefore be important to assess whether and in how far the addressed research questions and topics can be transferred to the Alpine context and which adjustments are necessary (e.g. based on 55 research

questions for the Alps). Interesting starting points are, inter alia, sustainable regional and local development, mobility, climate change, tourism and agriculture.

Before starting such an extension process, a few key questions on the design of the process need to be answered:

- What does already exist?
- Which territorial focus fits best?
- Broad participation vs. focus on key players?
- What is the right instrument?

The discussion concluded with two immediate needs, which are crucial for the next steps: First, it would be important to foster more **exchange of experience** (quantitatively and qualitatively) between existing activities and projects in the Alpine region and, where possible and necessary, in neighbouring regions. This also implies a selection process: The enormous amounts of information need to be filtered and priorities need to be identified. Then, key information need to be made available and communicated. Against the background of all existing initiatives and approaches, it is furthermore important to look for **non-success factors**, to identify problems that previous activities were facing and that hampered their success.

Working group "S3-4AlpClusters"

The practice

How to foster innovation processes within clusters? How to increase the impact of Smart Specialization Strategies (S3) implemented by regional authorities? These are the two central questions addressed in our project entitled S3-4AlpClusters. The School of Engineering and Architecture of Fribourg (HES-SO HEIA-FR) manages this project as part of the INTERREG VB Alpine Space programme. The project brings together 15 partners from 11 Alpine Space Regions (Piedmont, Lombardy, Autonomous Province of Trento, Venetia, Slovenia, Upper Austria, Salzburg, Bavaria, Baden-Württemberg, Franche-Comté, and the canton of Fribourg), their clusters and 9 observers. It aims at strengthening the impact of the regional economy's policies on its enterprises by selecting and prioritizing, through an entrepreneurial discovery process, new innovative value chains with a strong focus on interregional collaboration.

First Results: Synergy Diamonds for Need-Based Interregional Collaboration

The first period of the S3-4AlpClusters has been completed this summer with the publication of first results. Led by VDI/VDE GmbH, Berlin, Anteja ECG, Ljubljana and HES-SO HEIA-FR, Fribourg, a strong focus has been put on the identification of synergies and complementarities between the strategies of the regions of the Alpine Space. The S3 documents of all participating regions have been studied in detail. We specifically identified strategic priorities, which are mentioned in the strategies of multiple regions, which represent a substantial potential for interregional collaboration, and which offer, when combined, opportunities for transformative activities (new innovative value chains). The results from this analysis have been summarized in a new analytical tool we called "Synergy Diamonds". These Synergy Diamonds represent, on their edges, the global

strategic priorities shared by several regions of the Alpine Space and, on the axes, a field of opportunities for transformative activities in new value chains.
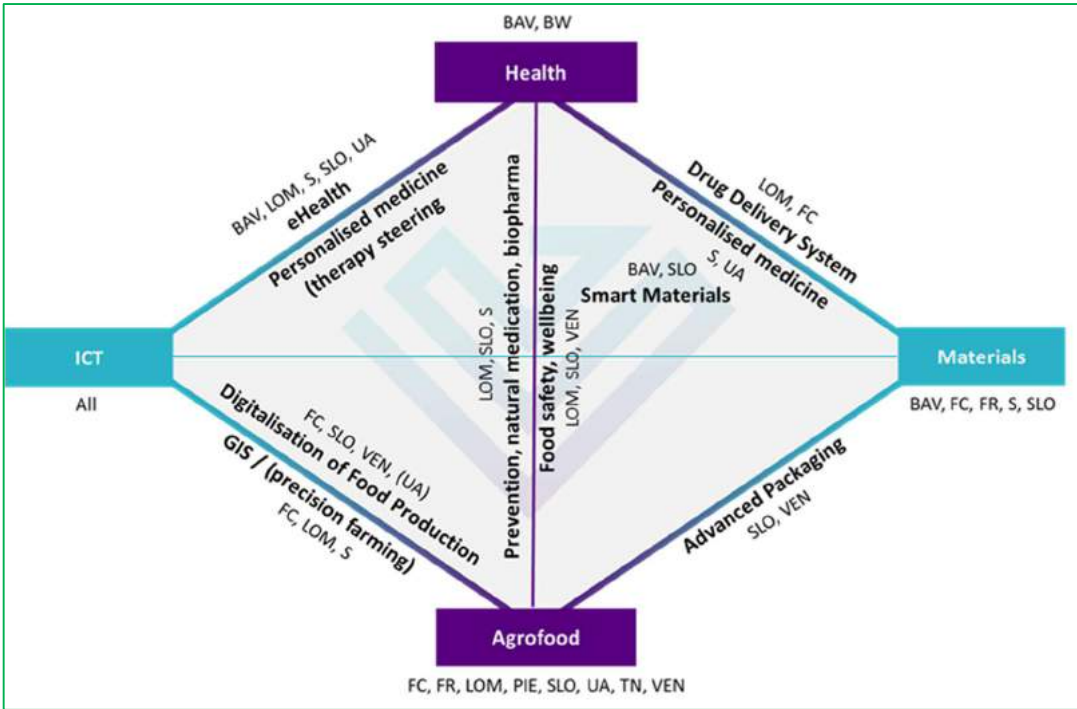
Figure 5: Synergy Diamond, Example. (Source: Meier zu Köcker, G., Dermastia, M. and Keller, M. (2017). Strategic Alpine Space Areas for Cross-regional Cooperation)

From Theory to Practice: Thematic Entrepreneurial Discovery Workshops

Drawing on the identified synergy potentials in regional S3, a series of Entrepreneurial Discovery Workshops (EDW) was launched under the lead of Dominique Foray (EPFL), Gerd Meier zu Köcker (VDI/VDE GmbH) and Michael Keller (HES-SO//FR HEIA-FR), where new ideas for smart specialisation in new value chains were discussed in the participating regions in a bottom-up approach involving participants from regional firms, clusters, policymakers and representatives of the regional research and innovation-system. The workshops aimed at defining transformative activities in new innovative value chains based on the entrepreneurial resources and capacities already existing in the regions and the opportunities represented by developments in technology, R&D and innovation and relevant technological, economical and societal trends.

Figure 6: S3 Concept for Entrepreneurial Discovery Workshops. (Source: Foray, D. and Keller, M. Ongoing work within the S3-4AlpClusters project)

9

In each region (Salzburg, Trento, Munich, Linz, Milan, Besançon, Venice, Fribourg, Ljubljana, North Black Forest), specific transformative activities have been identified in this process and been analysed with a focus on need-based interregional collaboration. The only workshop of the series in Switzerland took place in Fribourg on July 13, 2017 and focused on circular bioeconomy.
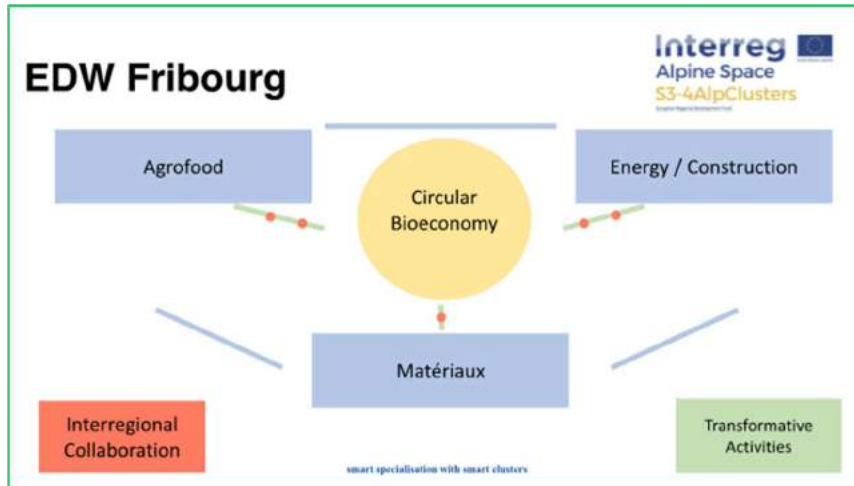
Figure 7: EDW, Example Fribourg. (Source: Foray, D. and Keller, M. Ongoing work within the S3-4AlpClusters project)

In a nutshell

- S3-4AlpClusters: Innovative approach considering the **interplay between S3 and clusters** within the Alpine Space;
- First results: **Synergy Diamonds** as a new analytical tool for interregional collaboration;
- Put into practice in a series of thematic **Entrepreneurial Discovery Workshops (EDW);**
- Example Canton of Fribourg: **Circular Bioeconomy.**

FURTHER PROJECT INFORMATION

www.alpine-space.eu/projects/s3-4alpclusters

Discussion

By basing the approach of the R3-4AlpClusters on two existing elements, namely regional innovation strategies (RIS3) and clusters it builds on regional resources and identifying opportunities that shall support transformation as displayed in the synergy diamonds. Therefore, to bring people together is at the centre of the project. This is realised through the second tool developed by the project, i.e. the Entrepreneurial Discovery Workshops. Critical to the project was the finding that RIS3 build on regional clusters whereas **cluster manager have little to no knowledge** about the expected link and contribution their clusters shall provide for achieving RIS3 objectives. This indicates a lack in transfer of strategies into practical activities, which shows that RIS3 usually do not really think along the lines of transformation.

Successful Entrepreneurial Discovery Workshops are central to achieving the project's objectives. The workshops require a balanced participation by policy and entrepreneurs. This can be achieved typically under certain preconditions:

- A clear thematic focus is defined to allow for targeted invitation and discussion.
- The cluster manager is able to obtain the enterprises' support and engagement as a result of existing dialogues within the cluster and the ability to show the benefit for participating enterprises. In other words, enterprises need to have trust in the assessment and promises of the cluster manager. Systematic personal contacts between the cluster manager and the cluster's companies have proven useful for this.
- The precise organization of the workshops needs to take into consideration cultural specifics.

Particular **potentials for eco-innovation** may be existing in the **Alpine region** due to specific resources. These are, inter alia, related to a certain policy understanding in which, independently from the country's predominating institutional and policy model, bottom-up approaches dominate. In addition multilingualism, as observed in some parts of the Alps can also be beneficial due to the differences in wording details that initiate new perspectives on a known subject.

Figure 8: "R3-4AlpClusters" group discussion.

Challenges are related to mainly two aspects, firstly, in **differentiating eco-innovation from any other innovation** and secondly, a **lack of interregional and cross-border funding** mechanisms. Discussions showed that it is not simple to specify whether an innovation aiming at more resource efficiency actually represents an eco-innovation, since rebound effects and delays in achieving the anticipated resource efficiency increase may matter for such an assessment. Innovation requires usually long-lasting efforts for which funding instruments such as Interreg are not sufficient. Other instruments more directly aiming at bringing innovation into practical application are, however, often bound to a certain region and do not allow funding of partners in other regions or even countries.

Thus, for overcoming the latter challenge new interregional funding instruments are required, especially if eco-innovation activities shall be promoted at a larger scale in the Alpine region. However, cooperation should always be well justified. Several sectors appear to be useful for application of eco-innovation in the Alpine region. These include in particular the food sector, biomass, energy, tourism, life sciences and ICT.

Meta-level example

The two examples discussed in the working groups were complemented by the presentation of the Swiss "GO-FOR-IMPACT" model for further discussion. **Ms. Véronique Ruppert Schmitt** from the Swiss Federal Office of the Environment (FOEN) introduced the reasons for developing GO-FOR-IMPACT and highlighted the models main features and current undertakings to achieving real impact.

By means of several indicators and measurements she illustrated how consumption is beyond planetary boundaries. After Swiss approaches to introducing legal obligations aiming at a more green economy failed, the FOEN discussed how the government can support further action for sustainable development.

As a result a dialogue was initiated discussing the central question "How can Switzerland move more effectively and efficiently to resource-conserving production and sustainable consumption patterns?" The initiated process indicated the areas of consumption of food, living and mobility as being the most relevant ones. The process concluded that

Figure 9: Ms. Ruppert Schmitt giving her presentation.

- it is more important to bring active players together rather than initiating new activities;
- complete value chains need to be considered;
- efficiency increases can be considerable when tackling consumption;
- new business models using the idea of a circular economy are necessary and
- open collaboration between different players is beneficial for transformation.

This resulted in initiating the Swiss Green Economy dialogue GO-FOR-IMPACT that builds on the relationships between innovating, integrating and creating impact. This dialogue is under implementation by initiating dialogue between key players of selected industries, including e.g. the textile industry. Among others, it seeks to develop voluntary agreements and collaborations among players of the relevant industries.
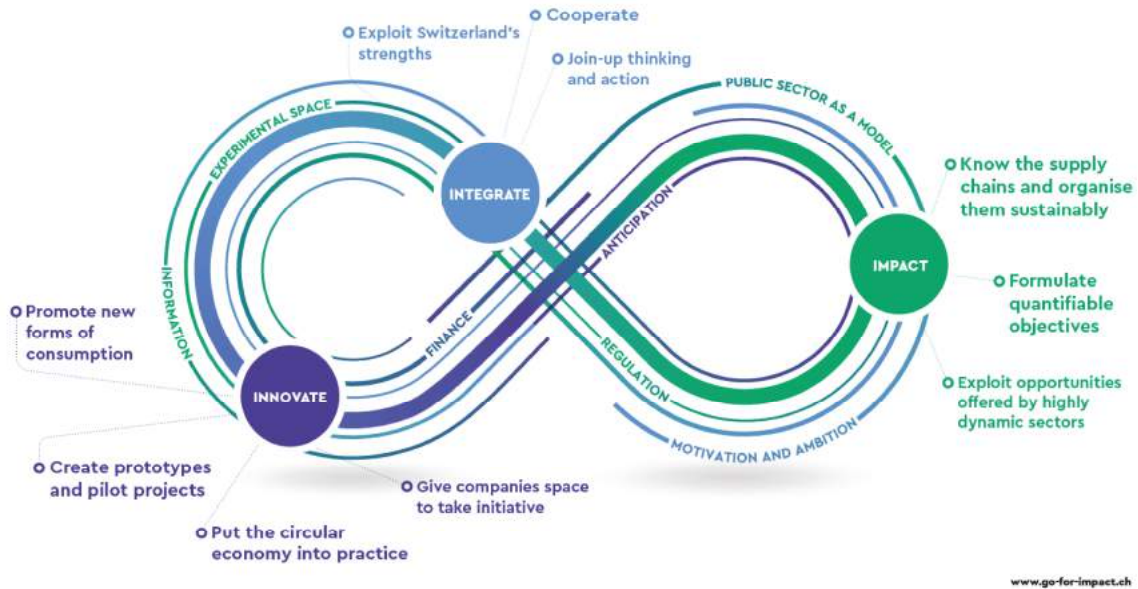
Figure 10: From Ms Ruppert Schmitt's presentation on the logic of the GO-FOR-IMPACT model.
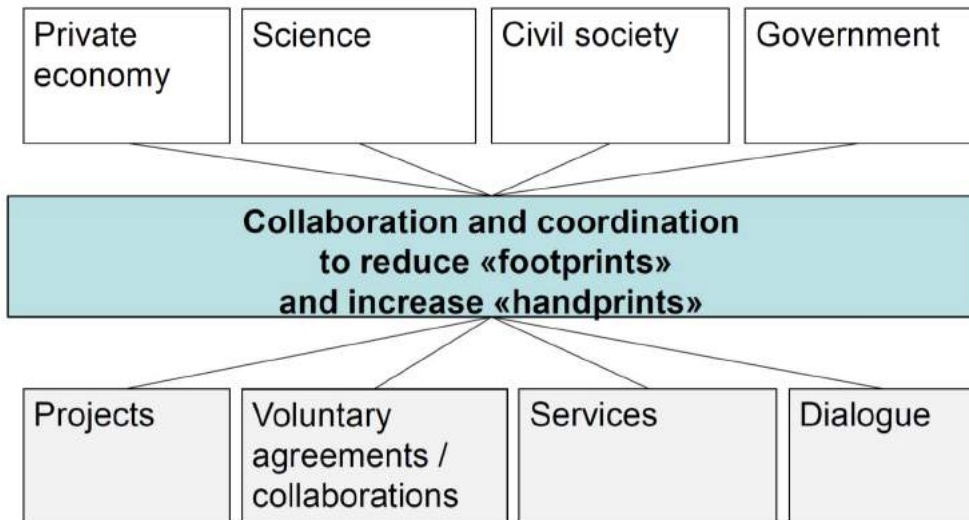
Figure 11: From Ms Ruppert Schmitt's presentation on the approach to bring the approach into action.

Results

Active discussions frequently came back to the main findings highlighted in the keynote speech. There are many similarities between activities that aim at enhancing eco-innovation and bringing them into application – no matter what the sector is or whether it is a private good or a common one. A suitable policy framework is as important as the participation by enterprises. The people involved in the processes matter.

The various approaches furthermore showed that eco-innovation should be thought from different perspectives not only regarding the relevant sectors but regarding production and consumption. Often improving resource efficiency in production is considered, especially in the field of energy. When aiming at reducing the footprint of consumption, however, different sectors may represent the most relevant access points as compared to increasing resource efficiency in production. Eco-innovation is thus not only about more resource efficient production processes but also needs to consider a change in consumption pattern.

For many areas analysis on externalities, footprints and other relevant indicators is existing. Thus, it is largely known what sectors may be relevant in certain regions for achieving strong impacts in terms of resource efficiency. Often, however, the dialogue is lacking to bring ideas to the market, to develop new business models from opportunities etc. Enhancing dialogue and making use of soft instruments, such as providing a platform for the development of voluntary agreements, may be a useful tool for the Alpine Convention to contribute to a Green Economy in the Alpine region. Dialogue in this context can take place in very different formats.

Figure 12: Workshop participants.

ANNEX
Agenda
List of participants

CONTACT

Dr Sabine Zillmer
Spatial Foresight
www.spatialforesight.eu

14

AGENDA

10:00 Opening with greetings
Prof. Paul Burger (University of Basel) & Richard Landgraf (German Environment Agency)

10:10 Background and objectives of the workshop
Dr Sabine Zillmer

10:20 Short introduction of the participants

10:40 Keynote – Living Innovations
Dr Johannes Heeb, seecon gmbh (CH)

11:25 Introduction to group work

Cross-border research for strong regions – Experience from the 'Upper Rhine Cluster for Sustainability Research' project Prof. Paul Burger and Dr Stephan Schmidt, University of Basel (CH)	From theory to practice through Entrepreneurial Discovery Workshops (EDW) – Experience from the INTERREG Alpine Space project 'S3-4AlpClusters' Michael Keller, University of Applied Sciences and Arts West Switzerland (CH)

11:35 1st session – Good practice examples, their success factors and challenges

12:30 Lunch

13:30 2nd session – Ideas for expanding successful experiences in the Alps

14:30 Coffee break

14:45 A model for further discussion: GO-FOR-IMPACT
Véronique Ruppert Schmitt, Federal Office for the Environment (CH)

15:30 Joint discussion and synthesis of the results of group work in the plenary

16:15 Outlook
Dr Sabine Zillmer (Spatial Foresight)

16:30 End

List of participants

Name	Institution
Marianne Badura	blue! advancing european projects
Olena Bolger	Hubbasel
Sebastian Brackhahne	Albert-Ludwigs-Universität Freiburg
Paul Burger	University of Basel
Ines Gavrilut	Albert-Ludwigs-Universität Freiburg
Tina Haisch	University of Applied Sciences and Arts Northwestern Switzerland
Johannes Heeb	seecon / cewas
Amelie Herzog	ITAS Karlsruhe
Klaus Markus Hofmann	Europäische Hochschule der Humanökologie Emmendingen
Michael Kaspar Keller	Hochschule für Technik und Architektur, Freiburg i.Ü.
Richard Landgraf	Umweltbundesamt
Christian Lüer	Spatial Foresight
Arne Menn	Universität Basel
Véronique Ruppert Schmitt	Federal Office for the Environment
Stephan Schmidt	University of Basel
Hans-Jörg Schwander	Innovation Academy e.V.
Annika Sohre	Universität Basel
Sabine Zillmer	Spatial Foresight

Workshop

14 November 2017

Grenoble, France

"Climate Change, Energy and Construction"

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

BASEL (CH)
13 November 2017
Eco-innovations

IMMENSTADT (DE)
27 September 2017
Sustainable use of natural resources

VILLACH (AT)
9-10 November 2017
Role of municipalities and cities

EDOLO (IT)
25 October 2017
Circular economy

GORIZIA (IT)
29 November 2017
Green finance for innovation

GRENOBLE (FR)
14 November 2017
Climate change, energy and construction

List of Content

On 14 November 2017 the Grenoble Chamber of Commerce and Industry hosted the fifth workshop for the preparation of the Action Programme for a Green Economy in the Alpine region. Participants from France and Germany met in Grenoble to discuss about innovative buildings in mountain regions and about key elements that could promote the transformation towards a Green Economy.

Welcome

The participants were welcomed by Mr. Francis Fiesinger, who works at the Grenoble Chamber of Commerce and Industry (CCI) and who is responsible for mountain tourism strategies, as well as by Mr. Hugues De Villard, board member of the Grenoble CCI. They both underlined the role of their institution as a networking centre where local actors can find economic opportunities, and the importance of a Green Economy business model that could increase the employment rate and support the development of the territories. Mr. Alain Bourgogne, vice president of CIPRA France, highlighted the fact that the Alpine Convention has dedicated a protocol to the issue of energy, and that CIPRA has contributed to the protection of natural resources since the beginning of its activities, more than 50 years ago. Ms. Nathalie Morelle introduced the activities of the Alpine Convention and the content of the Sixth Report on the State of the Alps (RSA6). Ms. Elisa Agosti presented CIPRA International and the framework in which the workshop was organised as well as the objectives of the workshop series.

Keynotes

Four keynote speakers were invited to present their experience in the field of Green Economy. The first presentation was given by Mr. **Frédéric Desautel.**

Figure 1: Mr. Desautel giving his speech

Figure 2: Handle shower head.

Mr. Desautel had worked as an engineer for a number of years before he moved towards a new business framework. He now runs a vacation centre in Saint Bernard du Touvet/F, about 40 km from Grenoble. Mr. Desautel presented some solutions that are showcased in his demonstration building. These solutions aim to reduce the water and energy consumption of his centre, but can be easily transferred to other buildings. The site was built by using local architectural techniques, and the used wood came from nearby forests. Mr. Desautel shared the following good practices with the audience: photovoltaic panels, handle shower head (Figure 2), flush water in the toilet coming from rainwater, three different insulating materials and an individual meter that allows the client to monitor the energy savings.

The idea of his centre is to educate tourists with regards to a more sustainable lifestyle, showing them that reducing their consumption does not reduce their quality of life.

Mr. **Christian Schaeffer** is the director of INES, the French National Institute for Solar Energy. INES is the main research centre on solar energy in France. Main fields of activity are research, innovation processes and training. Mr. Schaeffer presented the ENERB'Alpes programme, which was launched within the inter-regional convention of the Massif des Alpes (2015-2020). ENERB'Alpes aims to enhance the skills of professional profiles working in mountain shelters, to monitor the real performance of buildings and solar installation and to promote innovative technologies by communicating the results in order to increase territorial development dynamics.

Figure 3: The INES logo.

Figure 4: Mr. Schaeffer giving his speech

Mr. **Alexandre Mignotte** (project manager of mountain politics and relations with the regional natural park of the Grenoble Métropole) and Mr. **Emmanuel Jeanjean** (project manager in the field of energy, climate and mobility at the Vercors regional nature park) gave a presentation about the positive energy territories (TEPOs, *Territoires à énergie positive*). A TEPO aims to reduce its energy needs as much as possible by reaching a high level of energy efficiency, and to cover the remaining energy needs by local renewable sources. The objective of a TEPO is to shape new energy landscapes and to include the civil society into the process. These programmes are financed by the region (TEPOS-CV, on the contrary, are financed by the territories themselves: CV means "*croissance verte*", green growth). In the case presented to the workshop participants, the Auvergne-Rhône-Alpes region allocated 100,000 € that were used to carry out research work and to support the organisation. This amount has been fairly divided between the two partners: 50% went to the Grenoble municipalities, 50% went to the Vercors Park. The money has been invested in actions related to one of the following 5 thematic areas: renewable energies, environment and biodiversity, building renovation, forest and wood supply chain as well as sustainable mobility.

Both speakers underlined the importance of political willingness to implement projects that take place at the local level and involve the territories. Both speakers pointed out that the exchange of opinions and information is a crucial point. Mr. Mignotte concluded saying that he has already noticed some improvements in the Vercors Park TEPO. Change is happening, but there is still a lot to be done.

After the joint presentation, Mr. Jeanjean introduced some actions of the Vercors Park that deal with adaptation to climate change in mountain areas. The temperature in the Vercors area has experienced an increase of 1.5 degrees in the last 60 years. In addition, a 25% decrease of snow accumulation has been registered in the park. As a consequence, economic actors working in this part of France will have to diversify their touristic offers, which cannot rely on natural snow anymore. Forest and water management plans will also have to be adapted to the current and future situation.

Some concrete steps have already been implemented: the territorial system has been reshaped, the impacts of the actions put in place have been monitored, and a thematic platform is now available for the stakeholders that are looking for information. Mr. Jeanjean presented some actions that are taking place in the region. Among these, "Via Vercors" is the first mountain green path linking 7 villages and offering solutions to avoid individual car traffic. In addition, "Via Vercors" helps to diversify the touristic offer and to ensure that the area is visited throughout the whole year. In order to do that, different services have been associated: a visit to a farm, meals in a restaurant, bike rental services, and products from local craftsmen as well as accommodation facilities.

Figure 5: Mr. Mignotte and Mr. Jeanjean during their common presentation.

Working groups

The second part of the morning was dedicated to interactive group work. The participants were divided into 4 groups and accompanied by two moderators. The participants were asked to present a good practice example they know, its leverages and obstacles. The group discussion lasted for about one hour. The following groups were formed:

• Group 1 ECO-CONSTRUCTION
• Group 2 BUILDING RENOVATION IN MOUNTAIN REGIONS
• Group 3 ENERGY MANAGEMENT
• Group 4 ENERGY TRANSITION OF MOUNTAIN REGIONS

1. Discussion group ECO-CONSTRUCTION:

The group presented the following good practices:

Figure 6: Working group 1.

- The restoration of a factory in St. Laurent en Royans/F will be transformed into a training centre for eco-responsible citizens;
- The prototypes developed by the R&D department of the IT FCBA allow the rehabilitation of accommodations in mountain regions;
- The reduction in water and energy consumption thanks to minor technical changes (rainwater recovery, shower handle).

The main leverages mentioned:
- The power of having good examples that worked well and that can be used to convince other people to follow the same path;
- In the case of the vacation centre, addressing tourists during their vacation, showing them that they can change habits regarding their energy consumption in their everyday life;
- The crucial role of training and education;
- The importance of accompanying the entire process, offering technical support and giving professional advice;
- Stress the fact that buying local products has positive impacts on the local market, can reduce unemployment and increase the competences of local workforce;
- Stress the fact that buying cheap products hides a variety of social and environmental problems and costs;
- Exchange among different stakeholders, exchange of information, communication;
- The need of strengthening the link between research and practice;
- Local wood supply vs long-distance wood import and the importance of a better forest management;
- In the case of construction, using the most appropriate material to build the different parts of a building;
- The unexploited potential of the French forests.
-

The main obstacles mentioned:
- General unwillingness and reluctancy to change habits;
- Common property in mountain regions;
- The power of low-price offers by mainstream competitors vs higher prices offered by sustainable and innovative companies;
- Difficulty to get financial support for a project;
- Some buildings have a historical value and their renovation requires much time and money;
- The length of the process: it can take many years to achieve an economic outcome;
- In the case of the wood companies, the power of the cement lobby;
- French laws that are sometimes different from EU laws and regulations, together with a lack of knowledge about changes in legislation;
- The need to train architects, so that they become familiar with innovation in building techniques and materials. If an architect is not informed about the

innovations on the market, he/she will not propose an alternative to standard building techniques;
- Some bad examples that have gained a lot of attention and are now used to discourage people from trying something out of the box.
-

One of the obstacles mentioned was the power of the lobbies, in particular the cement lobby. Also the fierce competition among suppliers of fossil fuel-related materials was highlighted. These aspects cannot be solved at the business level but require legislative interventions and courageous governmental decisions.

The participants of this group came mainly from the wood industry. They underlined the importance of adapting to the customers' needs and to invest in modular product designs as they allow a product or the parts of a building to be broken down in a number of pieces and to be re-assembled. This means that these products are flexible enough to respond to the requests of the clients. The group stated that an extensive thinking process is needed in order to develop efficient prototypes and efficient solutions. The group members agreed additionally that an analysis of the effects of climate change on forests should be carried out.

2. Discussion group BUILDING RENOVATION IN MOUNTAIN REGIONS

Keywords and topics discussed in this group were:
- Promotion of renovation process vs the construction of new buildings;
- Anticipation of the customers' needs and new trends on the market;
- The need to rethink about how wood is used for new constructions today, bearing in mind the fact that these buildings might be dismantled in 20 years;
- The importance of raising the awareness on the topic and of addressing the owners of the buildings, trade unions and the general public;
- A heritage plan;
- Cross-sector innovation;
- Territorial platforms;
- The need of a coordination entity that links the initiatives and supports the stakeholders.

Figure 7: Working group 2.

The main leverages mentioned:
- Spread the awareness that non-renovation can become very expensive in the long-term. Owners of mountain buildings should be aware that avoiding investments helps to save money on the short term, but will require high investments in the

7

future. Step-by-step renovation (ideally supported by national funding) has been mentioned as a possible solution to this problem;
- Development of a national plan on the renovation of buildings;
- The role of craftsmen and SMEs;
- The power of communicating good practices;
- A resolution that is being discussed by an inter-ministerial committee focusing on the problem of unoccupied beds in touristic mountain areas. In a next step, a national plan should be worked out on this topic. Moreover, with this resolution the French government could encourage building owners or investors to sign binding agreements which would force them to renovate the building instead of abandoning it.

The main obstacles mentioned:
- Legislative and financial blockade;
- Lack of willingness of building owners who want to avoid long-term investments;
- The fact that the same building is owned by more than one person (common property);

3. Discussion group ENERGY MANAGEMENT

The group presented the following good practices:
- CETUP, personal clean vehicles;
- Enerb'alpes and the identification of different energy profiles in order to offer tailored solutions;
- Solar pole installed at 3.200 meters above sea level;
- H3C, energy performance contract;
- Group of municipalities that can realise price reductions if they organise joint orders for construction and renovation materials;

Figure 8: Working group 3.

The main leverages mentioned:
- Local partnerships and partnerships between citizens and communities;
- Find solutions (such as the solar pole) that can solve mountain-specific problems;

- Awareness about the different characteristics and needs of the territories in order to define the most suitable measures;
- A step-by-step intervention process;
- Modular product designs and a long-term approach;
- Monitoring of the performance of the installations in order to get the most accurate perception of the impact that the installation was able to reach;
- Accompanying the stakeholders and offering them support during the process phases.

The main obstacles mentioned:
- The costs of innovation;
- The fact that mountain areas are far from production sites and more difficult to reach (low accessibility);
- The scattered settlement structures in mountain areas make it more difficult to implement effective solutions.

4. Discussion group ENERGY TRANSITION OF MOUNTAIN REGIONS

The group presented the following good practices:

- Cable cars, a non-polluting transportation means;
- Photovoltaic plans in rural areas, which work quite well for communities of about 2,500 inhabitants. Unfortunately, it was also mentioned that big companies do not take into account the needs of the people living in the area of the plant.
- Mobilisation of the inhabitants of the Arve valley (France), conferences to inform about the air quality in the area;
- Companies working together in the Arve valley to develop a car sharing model;
- A comparison with Germany, where 50% of the new (renewable) energy production models was reached thanks to citizens' initiatives.

Figure 9: Example of a cable car, connecting the mountain areas with the lower part of the valley.

Figure 10: Working group 4.

The main leverages mentioned were:
- Trust among the stakeholders;
- Groups that have already been formed through the civil mobilisation and keep working together. These groups need platforms where they can communicate;

- Territorial poles of economic cooperation work well in France and constitute a good practice to follow;
- The positive role that the natural parks can play.

The main obstacles mentioned were:
- How to fund the project and the difficulties caused by the tax system;
- The involvement of many stakeholders and the multi-layer structure;
- The stakeholders often lack the operational and technical knowledge that is needed to master an energy transition process.

Results of the keynote speeches and working groups

The presentations given by the keynote speakers in Grenoble show that innovation is possible. The practical examples were characterised by different aspects and were developed through different paths:

Creativity and new trends (the case of the vacation centre): The awareness about a more sustainable way of life and of sustainable tourism is increasing and Mr. Desautel has been able to build his business on this new trend. He said that his centre is rarely found by chance. Tourists, families and different groups are looking for alternative offers and wish to spend their holidays in a natural and sustainable environment.

Research and empiric evidence (the case of the French institute INES, which connects theory and practice, shaping a positive circle): 1) The analysis of data helps INES to develop new technologies in the field of solar energy; 2) Buildings are constructed or renovated using this technology; 3) Monitoring of the performances of these buildings provides new data that again can be analysed.

Compromises and collaboration: The forced marriage between the municipality of Grenoble and the Vercors Park could have ended very soon. The real story shows that many positive aspects are to be found in this relationship. Started because of budget reductions, this collaboration has proven to be successful. Both partners would not divorce and, on the contrary, advocate for more political engagement to disseminate and promote this kind of collaboration.

The topics discussed in the working groups ranged from a better management of the French forests, a better exchange of existing information, and the need to form key professional profiles in the construction sector, such as architects and craftsmen. These professional profiles are the link between the R&D departments of many institutions and the final consumers. An architect who is not aware of the last trends and potentials of a material will not inform his or her clients about the possibility of using an alternative material or technique, and thus to build in a different way. When it comes to building a house, it is necessary to consider the personal taste of the buyers as well as the personal preferences of the architects. These are factors which are difficult to influence. However, what can be influenced is the prejudice that many people have when they think about certain materials. To give an example: It has been mentioned that wood is considered the most vulnerable material in a fire by many people. However, this is not true. Wood can burn (as other material also do) but does react in a way that allows firemen to reduce the damages.

Inputs for the Action Programme

According to the information collected during the workshop, following inputs can be taken into consideration for the drafting of the Action Plan:

A better management of the forest: This measure goes hand in hand with the reduction of the amount of wood that France imports from abroad. Consequently, this would reduce the emissions caused by the long-distance transportation of wood. Wood is a renewable construction material that can be used for constructions that can be easily disaggregated, compared to cement and other materials. In this sense, wood could provide an answer for the fast changing trends of the customers.

The need to train the professional profiles working in the construction field and to inform them about the importance of sharing the information available with the final client. The final client should then be able to make the final choice about the material or the technique to be used;

Mobilise the civil society: During this workshop the key roles of the civil society and of trade unions have been highlighted several times. Building on the increased awareness that is spreading among the civil society (as it has been confirmed by Mr. Mignotte and Ms. Morelle during their speeches) is crucial to support people to accept innovation and change in the way they build or renovate a building and in the source of energy they choose. Active promotion of renewable energy citizens' initiatives can have a great impact on the transformation of the energy sector.

Conclusions

The moderators were satisfied with the workshop results and had the chance to attend fruitful and targeted discussions. Having less time than for the other workshops did not affect the effectiveness of the day and pushed the discussion towards more targeted objectives. The participants were mixed, coming from different French regions and from different backgrounds. They had the chance to enlarge their network and present their activities. The best practices were well chosen, diverse and inspiring. The CCI has expressed the willingness to stay in touch with CIPRA and the project team and to organise other joint events in the future.

ANNEX

Agenda
List of participants

CONTACT
elisa.agosti@cipra.org
CIPRA International
Cipra.org

Agenda:

09.00 - 09.15 Opening with greetings
Francis Fiesinger, Hugues Devillard, Grenoble Chamber of Commerce and Industry
Alain Boulogne, Vice-President of CIPRA France
Nathalie Morelle, Alpine Convention
Elisa Agosti, CIPRA International

09.15 - 10.30 Key notes presentations

Frédéric Desautel, manager of the ecotourism centre "Balcons de Chartreuse": examples of demonstrative and educational buildings, as well as energy solutions.
Christian Schaeffer, director of INES: presentation about the Enerb Alp project.
Alexandre Mignotte project manager at Grenoble Métropole: territories and stakeholders engaged in the field of energy transition and green economy.
Emmanuel Jeanjean Vercors regional nature park, parc du Vercors: presentation about good practices that are taking place between the Grenoble Métropole and the Vercors TEPOs.

10.30 - 10.45   Coffee break

10.45 – 12.15   Work group and synthesis of work group results

12.15 - 12.20   Nadine Mordant
Commissioner for the French Alpine region
Actions in favour of the energy transition in mountain regions at the national level

12.20 - 12.30 Conclusion
Francis Fiesinger, Grenoble Chamber of Commerce and Industry

blue! advancing european projects   CIPRA LIVING IN THE ALPS   spatial foresight

List of participants

NAME	INSTITUTION
Agosti Elisa	CIPRA International
Badura Marianne	Blue !
Baron Nicolas	ENEOS PRO
Beraldi Carmela	AFFINISKI
Berlandis Maryse	CETUP
Boulogne Alain	CIPRA France
Chaumaz Didier	ASDEP
Chelle Laurent	CDA
Desautel Frédéric	Evasion au naturel
Devillard Hugues	CCI Grenoble
Fiesinger Francis	Club euro alpin
Gaucherand Damien	Innovales
Gillet Olivier	Ademe
Grimaud Laurent	EOLYA
Hassid Marc-Jérome	CIPRA France
Herin Frédéric	H3C Energies
Hirigoyen Jean	Chainon manquant
Jean Jean Emmanuel	Parc du vercors
Jocteur Montrozier Bénédicte	CCIGrenoble
Lavagne Franck	Tracols
Lemaignan Benoit	OSER
Malterre Florent	comcom oisans
Martinez Marie	Tracols
Martinod Alexis	Pole excellence bois
Mignotte Alexandre	Grenoble Métropole
Mordant Nadine	CGET
Morelle Nathalie	Convention Alpine
Myard Marie Cecile	MCM
Pain Alexandre	ENGIE

Patte Antoine	AURA communes forestières
Portier Florent	Bois des Alpes
Requejo Agnes	EDF territoires
Roue Magali	INES
Schaeffer Christian	INES
Segalen Delphine	CIPRA France
Sienicki Jacques	AMS
Simon Claire	Conseils
Simon Catherine	Préfecture Isère
Varachaud Thierry	IT FCBA
Vogel Guillaume	comcom oisans

"Financing innovation for a Green Economy in the Alpine region"

Workshop for the preparation of the Action Programme for a Green Economy in the Alpine region

WORKSHOP DOCUMENTATION

Workshop

29 November 2017

Gorizia, Italy

List of Content

On 29 November 2017 the University of Trieste hosted the sixth and last workshop for the preparation of the Action Programme for a Green Economy in the Alpine region. The event was coorganised by CIPRA Interational and by AREA Science Park. Participants from Italy, Slovenia and Germany met in Gorizia to discuss about financial solutions to support the development of a Green Economy.

Welcome

The participants were welcomed by Mr. Fabrizio Rovatti, director of AREA Science Park, who briefly introduced the main activities of AREA and by Ms. Elisa Agosti, who described the activities of CIPRA International and presented the objectives of the workshop. After that Mr. Giorgio Sulligoi, professor at the University of Trieste, greeted the audience stating that innovation can come from different sources and that students have an important role to play when it comes to fresh ideas. Finally, Ms. Chiara Gatta, counsellor at the municipality of Gorizia for university-related topics, thanked the organisers for choosing Gorizia as the hosting city for the meeting and brought greetings from the mayor of Gorizia.

Mr. Rovatti presented the agenda of the meeting before giving the floor to the first keynote speaker.

RSA6 presentation

Ms. Maria Teresa Idone, member of the Italian Delegation to the Alpine Convention, introduced some of the findings of the Sixth Report on the State of the Alps, underlining the fact that most of the Alpine countries are improving their energy consumption rate, but that differences among the regions are still remarkable. She highlighted the social aspects of Green Economy that are related to heath, green jobs and sustainable consumer behaviour, and the fact that mapping the Alpine region and collecting relevant data is very important for further improvements. Ms. Idone concluded saying that ecosystems and biodiversity constitute strong assets for the Alpine region and that Green Economy can and should be an engine for regional development.

Keynotes

Five keynote speakers were invited to give a presentation about different topics related to the workshop's main theme.

Figure 1: Mr. Rovatti giving his presentation.

Mr. Fabrizio Rovatti was not only the moderator of the workshop, but was also the first keynote speaker. He started his speech asking the participants how they would define innovation. He received different answers, among which "something new" and "something that is not necessarily new, but done in a new way". He then gave two definitions of innovation:

1. An invention for commercialisation (business-related definition);
2. The art of creating new value for a user (utilisation-related definition).

He continued explaining how AREA Science Park supports entrepreneurs and researchers to enter the market. In synthesis, the role of AREA is to connect the public and the private sector, analysing how a company works so that it becomes more competitive and brings innovation to the market. Mr. Rovatti told the participants that fulfilling such an objective requires AREA to follow the needs of the moment and the evolutions of the market. AREA can be seen as an "incubator of innovation" that works on a multisectorial level and tries to get in touch with both small and big companies, and supports them by providing open labs, information and expertise.

The second keynote speaker was Mr. Edoardo Croci, professor at the Bocconi University, who introduced himself telling the audience that he has been participating in a Green Economy observatory and that he has been spending quite some time doing research on urban sustainability. His presentation focused on sustainable development at the local level and on the solutions that municipalities can put in place to increase sustainable urban investments.

Figure 2: Mr. Croci during his speech.

According to Mr. Croci advancements linked to sustainable development are already to be seen at international level. He cited the Europe 2020 strategy[1], the SDGs (number 11[2] in particular - Goal 11: Make cities inclusive, safe, resilient and sustainable) underlining the inspiring dimensions of these programmes also for national agendas. Financial aspects are crucial for the implementation of efficient projects at the local level. First of all, Mr. Croci showed some graphs that gave an idea about the percentage of public expenditure and public revenue at the subnational level in different countries. These graphs showed that countries like Canada and Denmark have a higher level of public expenditure, and that Greece and Ireland have a very low rate. Countries like Austria, Italy and France are in the middle of the line, whereas Germany is a bit further up.

After this first explanation, the attention was brought to the Italian local taxation system. Mr. Croci pointed out that Italian municipalities, like many other municipalities, collect money using two main instruments: on budget and off budget instruments. Inside these two instruments, two categories can be defined, which Mr. Croci arbitrary divided into traditional and innovative ones: Traditional instruments are the most traditional ways through which an public institution ensures its functioning, whereas innovative instruments include green bonds and crowd funding, which have just recently been used at the institutional level.

Mr. Croci analysed the situation of a municipality willing to commit to sustainable development saying that this commitment needs to be financed by funds coming mainly from traditional sources and that, instead, this municipality should think about turning

---

[1] The Europe 2020 strategy is the EU's agenda for growth and jobs for the current decade. It emphasises smart, sustainable and inclusive growth as a way to overcome the structural weaknesses in Europe's economy, improve its competitiveness and productivity and underpin a sustainable social market economy. https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en

[2] http://www.un.org/sustainabledevelopment/cities/

towards innovative tools and private investments. He also cited some of the investment fields which he considers particularly interesting. These range from energy production and consumption, mobility and construction to waste management and the management of natural resources. He also warned the audience stating that if a local institution does not want to rely on EU money – which according to him is shrinking right now – it should think about financial instruments that generate revenues on externalities. He continued underlining the fact that nature offers natural resources, cultural landscapes and tourism attractions for free. Ecosystem services can be sustainably managed if the owner preserves the natural resources and if people that benefit from this service pay a certain sum of money. In short, both parties need a contract they must agree on. Moreover, this contract should guarantee that all indexes are taken into consideration. For example, in the case of a forest that was cut down to make space for real estate, we can say that the monetary value of this field might have grown, but that this area will no longer capture CO_2. This aspect must not be forgotten and should be regulated by specific contracts. Mr. Croci also presented some best practices coming from cities that tried to find sustainable solutions. The city of New York signed an agreement in 1990 with forest owners to establish a forest management that guarantees positive effects on water consumption. End users pay surtax on water that allows the city of New York to compensate for this ecosystem service. Another example of sustainable development at the local level is the possibility to adopt a flowerbed, as did the city of Milan in 2005. Through technical collaboration and technical or financial sponsorship different actors can help to maintain green areas in the middle of the city.

Mr. Rajko Leban gave a presentation focusing on the implementation of some pilot projects that follow green public procurements and which were implemented by energy service companies (ESCO). The projects were financed by energy supply contracting (ESC) or energy performance contracting (EPC). The concept of energy contracting is a method and financial mechanism to support building refurbishment. Energy consumption is reduced by new intelligent building systems and the resulting savings pay for the costs of the renewal. In addition to this, the entire project cycle costs are minimized. Renewable energy solutions can also be added to the contracting concept. They guarantee further reductions in primary energy use for a long period and accelerate the return on investment.[3] First he introduced GOLEA, a Slovenian regional energy agency founded in 2006 that aims to promote the use of renewable energies. The ESCO good practices he presented ranged from the refurbishment of a school, solar panels that were installed on a Slovenian highway, public street lightning, and the use of forest biomass to heat different buildings as well as the renovation of some municipality buildings. The main idea of all these projects was to promote innovative and alternative financing methods from private or public sources, allowing the deep renovation of public buildings. He also underlined that the biggest barriers encountered happened at the administrative and legislative level. Mr. Leban said that it is important that such projects guarantee energy saving for at least 15 years, to monitor the results and to correct the deviations. He then informed the audience that GOLEA is the first organization in Slovenia that signed a contract with the European Investment Bank in the framework of the Juncker plan[4].

---

3 Further information: www.eu-esco.org.

[4] The Investment Plan for Europe, the so-called Juncker Plan, has three objectives: to remove obstacles to investment; to provide visibility and technical assistance to investment projects; and to make smarter use of financial resources.
https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan-europe-juncker-plan_en.

He concluded by saying that common challenges for the Alpine societies include decarbonisation, decentralization, digitalization and democratization, and by asking the participants if they – and the society we live in - are ready to jump into an energy transition process.

Figure 3: Drawing by Mr. Jan Sedmak.

As Mr. Daniele Zivieri was not able to join the workshop, the floor was given to Mr. Paolo Ferrari who presented two projects dealing with logistic strategies for truck drivers. Researchers from the University of Trieste developed an app that helps to optimize the delivery process and that can indicate free parking places to the drivers. The app is linked to cameras installed along the highways and can tell truck drivers which direction they should take and how fast they should drive to reduce carbon emission and load the goods they are transporting on the same train as other trucks.

The last keynote speaker was Mr. Nazzareno Candotti, technician at the municipality of Forni di Sopra, a small village in the north of Friuli-Venezia-Giulia, in the Dolomites region. From the very beginning he stressed the fact that the project he was going to present took place at the lowest level- the municipal level- and that this was the very reason why the project was successful. The presentation focused on the heating biomass plant in Forni di Sopra, which heats some public buildings, the church and three hotels. It was created in order to guarantee energy savings, promote renewable energies and to boost business opportunities in the area. Becoming a green municipality started by identifying the three "treasures" of the village, as Mr. Candotti defined them - the sun, the water and the wood - and by recognizing that life without energy is impossible. This is why he said that mankind needs to rethink and change the way it is devouring energy. The philosophy of the plant is based on a short supply chain, forestry extractions, and the possibility, that people can visit the plant. The use of the biomass plant goes hand in hand with a sustainable management of the forest, because thanks to the short supply chain the forest is monitored in order to define the amount of trees that can be cut and to adapt the cutting mode to ecological requirements. As a consequence forest paths are clean and easy to walk through, which is very much appreciated by the tourists that visit this region. Mr. Candotti summurised the project saying that it was a 9 year work made by a team of passionate people, that measuring and collecting accurate data is the only way to improve, and that a short supply chain can make a biomass plant economically profitable. He also warned the participants highlighting the fact that biomass plants cannot work everywhere, and that their construction must match some basic requirements. He also mentioned the need of a constant number of users throughout the year as one of the biggest challenges.

Working groups

The working group session lasted about one hour. The participants were divided into two groups, one discussing about innovative financing in the public sector, the other discussing the same topic in the private sector.

Figure 4: Working group on the public sector.

The discussion focusing on the public sector started with some considerations from the participants about the situation of tourism. The discussion was actually going towards a topic that was not relevant to the workshop, but showed that tourism and territorial development were at the core of the participants' concerns. When directly asked to give their opinion about innovative finance the participants said that investments in rural and mountain areas should focus on building a reliable broadband internet connection and cycling lanes to promote sustainable tourism. A participant working in a bank confirmed that many financial institutions see the potential of investing in these sectors. Other participants underlined the importance of the workshops and training activities that are already organized in the EUSALP area by different organisations and institutions. However, they also stated that there is a risk to propose too many workshops, losing the focus and concrete targets. A particular comment was made on Mr. Croci's presentation and his taxation model, arguing that not all the actors are able to pay in the same proportion. The implementation of a new fiscal system needs to take the needs of the whole population into consideration. As the discussion went on, more problems were defined, e.g. the problem of not having enough funding (especially municipalities), the issue of long-term contracts that last for 20 years, but are financed only during a period of 5 years, the fact that the members of the municipalities can change after the preparation period and that the new officers need to go through the details of the project once again, and might ask for modifications or rejecting the entire project. Another problem are the difficulties that some municipalities experience when it comes to offering good guarantees. Regarding the solutions to these problems, the participants mentioned the involvement of all relevant stakeholders – including the banks - in the definition of a project and its budget, and the need for specific trainings for the different target groups.

The second group focused its discussion on the private sector. Ms. Palenberg mentioned the fact that in 2001 start-up leaders presented great ideas, but that 99% of them collapsed after a few years. Other participants stated the fact that many projects lack of a passionate group of people that invest time and energy in a common goal. These passionate people need to find a way to have their project financed by the banks. All the participants agreed that passion is a key element in all the projects. Mr. Rovatti summed up this discussion by saying that *"passion makes you work 24h a day to overcome the obstacles".* A representative of Banca Etica declared that a project should provide an answer to social problems in the local community, and give the local community the possibility to be involved in the process. The community is relevant also for what concerns the financial part of the project: the larger the community, the more resilient it can be. A representative of Elettra shared the opinion that putting forward a new idea means accepting to take a risk. Project leaders need to manage this risk, think about a plan B and find new strategies. When the members of this group were asked about other innovative elements they answered that a successful project does not necessarily need to be global, and that many good ideas can be replicated at the local level in different places. Mr. Rovatti added that the Alpine regions deal with a number of issues that are waiting for entrepreneurs to tackle them. The discussion then focused on the customers' needs and on innovation. The market offers products and services to the customers that are willing to pay for them. The job of every entrepreneur is to provide a better service and better conditions than his/her competitors. The key lies in the benefit that can be offered to the consumers and in the willingness to pay for it. Mr. Fabrizio Morea (AREA Science Park) defined innovation as *"a customer that says thank you"*.

Figure 5: Working group on the private sector.

Regarding new instruments and solutions, the participants from Banca Etica mentioned the case of community cooperatives. These are communities in which citizens, both individually or structured in organizational forms (in particular non-profit organizations), collaborate on various levels with the public administration for the management of public services. "Community cooperatives can be defined as an example of social innovation. Citizens organize themselves through structured forms (cooperatives) to respond to the needs they deem most important, and this also allows for the reconfiguration of the

relationship between public administration and civil society. The strong territorial identity is reflected in the choice of the cooperative form, which allows the participative and mutualistic functions to be strengthened. […] Being an initial phenomenon, however, there are critical factors, mainly related to the weakness of the managerial culture and entrepreneurial skills that often fail to support the strong motivation of these initiatives. In some cases, the instruments of governance and inclusion should be strengthened, in order to strengthen the participatory mechanisms typical of the cooperative phenomenon. This would also make it possible to improve and enhance relations with the institutions, thus enhancing the process of co-production of the public service."[5] This phenomenon has been recently studied by a number of European researchers. The issues tackled by these communities can be very different and range from the depopulation of small towns, the creation of jobs, and the protection of a particular environmental heritage. What all these strategies have in common is the desire to improve and enhance the local communities. Equity crowd funding – characterized by a lower investment risk - are another innovative instruments, together with local crowd funding (put in place by Banca Etica in the field of local products), and the enlargement of the type of investors. Other participants said that many advantages derive from open innovation and from the creation of a network, in which it is possible to pick up innovative models that are already implemented somewhere else.

The last question that was addressed to the group members was: *What can you expect from the private investor? Where is the limit?* The replies were that a company needs an immediate or very short time return on investment, that public investors (public bodys or public entities funded through private agencies and Interreg projects) are the only institutions with a long-term vision. Some declared that public administrations resemble monopolies – e.g. they are those that can collect waste exclusively. Cooperatives have a role to play in carrying out public services: in Friuli there are some cooperatives that distribute energy (Paluzza, Forni di Sopra), co-financing the investments to create a Green Economy business model.

---

[5] From the interview with Ms. Francesca Picciaia Researcher in Business Economics, Department of Economics, University of Perugia. http://www.legacoop.coop/cooperativedicomunita/2016/03/30/cooperative-comunita-utilities-non-profit-rispondere-alla-crisi-del-welfare-state-cura-francesca-picciaiai-luca-bartocci/, text in Italian

Figure 6: Drawing by Mr. Jan Sedmak.

Conclusion

The participants gave positive feedback to the workshop. Some said that they had feared that the presentations would have been too specific and difficult to follow, but that in the end they appreciated the variety of topics that were presented. However, the discussion in the working group focusing on the public sector showed that finance remains a difficult topic to deal with. Many students from the University of Trieste took part in the first part of the event, but they had to leave before the start of the working groups.

Inputs for the Action Programme

According to the results of the two working groups and according to the inputs given by the participants of the workshop the future Action Programme should take the following aspects into consideration:

1. The implementation of specific trainings and workshops for stakeholders in the financial sector in the Alpine area in order to inform them about the advantages of investing in a Green Economy;

2. A better collaboration between municipalities and banks. Banks should be encouraged to support the implementation of sustainable projects at the local level.

3. The development of specific business models for rural and mountain Alpine areas, in which different stakeholders work together to transform the difficulties of living in the mountains into chances for the economic development of these areas.

4. The establishment of innovative finance instruments that could support new forms of investments such as ESCOs, and new form of active citizen participation such as community cooperatives and equity crowd funding systems.

ANNEX

Agenda
List of participants

CONTACT

elisa.agosti@cipra.org
CIPRA International
Cipra.org

AGENDA

Presentations of the RSA6

> The sixth Report on the State of the Alps: Greening the economy in the Alpine region
> Maria Teresa Idone, Italian Delegation to the Alpine Convention

Keynote speeches

> "Innovation for Green Economy: How to bring innovation to the market and link research to businesses in the field of Green Economy in the Alps" - Stephen Taylor, Director - Innovation and Complex Systems Department - AREA Science Park

> "Sustainable development at urban level: how municipalities can find new and additional sources to increase sustainable urban investments. - Italian and European best practices" - Edoardo Croci – IEFE Research Director: Centre for Research on Energy and Environment - Bocconi University

Presentation of good practices

> "Intermodal Transportation in the North Adriatic" – Paolo Ferrrari – University of Trieste

> "Energy renovation of public buildings and sustainable mobility in Slovenia': ESCO model as a solution: what are the obstacles and what are the opportunities – for municipalities, companies and banks" - Rajko Leban - GOLEA - GORIŠKA LOCAL ENERGY AGENCY

> "Innovative financing in action: biomass district heating in a small Alpine community" - Nazzareno Candotti – Comune di Forni di Sopra

Presentation of the results from group work and plenary discussion.

List of participants

Name	Institution
Agosti Elisa	CIPRA International
Anfosso Lembo Mattia	University of Trieste
Arteni Martina	APE FVG
Banci Elena	AREA Science Park
Benaly Meriem	University of Trieste
Billi Mariachiara	University of Trieste
Borza Francesca	University of Trieste
Boula A.M. Roseline	University of Trieste
Campobasso Corrado	Informest
Candotti Nazzareno	Comune Formi di Sopra
Cietto Eduard	University of Trieste
Cogoi Margherita	University of Trieste
Colusso Michele	Unione Territoriale della Carnia
Croci Edoardo	Bocconi University
Dalla Vecchia Marta	University of Trieste
Dall'Osto Enzo	Regione Friuli Venezia Giulia
De Santa Bernardino	Comune Formi di Sopra
Ferrari Paolo	University of Trieste
Gatta Chiara	Councelor of University at the Municipality of Gorizia
Gjoni Elda	University of Trieste
Graĉner Martina	Ministry of Infrastructure Slovenia
Grillo Simone	Banca etica
Idone Maria Teresa	EURAC
Jeleh Igor	University of Trieste
Khan Sadiq	University of Trieste
Knezevic Simona	Tehnološki park Ljubljana
Leban Rajko	GOLEA
Mandalà Claudia	University of Trieste DIC
Masutti Manuela	AREA Science Park
Morea Fabio	AREA Science Park
Palenberg Dorothea	Blue!
Pigat Carol	University of Trieste
Quarantotto Vitori Virginia	University of Trieste
Ribas Matjaz	SID Bank
Ridi Carlotta	University of Trieste
Rihar Miha	Petrol
Rovatti Fabrizio	AREA Science Park
Scrazzolo Camilla	University of Trieste
Sherwood Susan	Comune Formi di Sopra
Sulligoi Giorgio	University of Trieste
Ulĉnik Eva	University of Ljubljana
Vaccari Lisa	Elettra Sincrotrone Trieste

GEAP Online Consultation – Conclusions

Results on key statement 1: Green Economy should be boosted more strongly

According to the 52 participants that took part in the online survey, mobility & transport, climate change & resource efficiency, and tourism are the top three policy fields that call for more ambitious measures and for Alpine-wide cooperation. Most participants think that in these policy areas an Alpine wide systematic approach does not exist and that only in some cases the approach used is able to guarantee the efficient follow up of good-practice examples and communication about success factors in the framework of Green Economy. There is space for improvement and impact monitoring in this area. In particular public administrations, municipalities, ministries, universities, companies and associations, but also media and civil societies could be involved to improve the current situation.

➔ *Key aspects for the GE Action Programme: Strengthen Alpine wide policy approaches and better develop monitoring of impacts in the fields of mobility & transport, climate change & resource efficiency and tourism.*

Results on key statement 2: Natural capital and the ecosystem services of the Alps have to be in the focus of political decision making at all levels

Participants strongly agree that strong support is needed to influence political decisions. This need encourages the dialogue among people who are economically active in the field of valuing natural resources, ecosystems and biodiversity on a local and regional level. Cooperation among different sectors should be fostered in order to achieve common political goals. Political framework conditions on EU or global level should be improved, but bureaucracy should be reduced. Participants also pointed out that it is important to include local communities, companies and associations as well as farmers in this process. A bottom-up approach and a real dialogue with all stakeholders is preferred to a theoretical process.

➔ *Key aspects for the GE Action Programme: Strengthen bottom up and participation of stakeholders with regards to political decision making especially in the field of natural capital and ecosystem services.*

Results on key statement 3: Green jobs need skilled people: 'green training & education' have to be strengthened!

The participants of the survey mainly operate in environmental and nature protection sectors, regional development, services, in education & training, tourism, climate change & resource efficiency and the innovation sector. Nearly 60% of them are aware of training possibilities in their field of expertise, provided by universities, the EU or national academies. 40% would be interested in a training programme, for example a legal training, communication training or Green Economy management.

The participants stated that interdisciplinary education and training would be extremely useful. They look forward to a stronger integration of GE issues in higher education curricula. A brokerage platform for green jobs, specific training or coaching offers via intermediaries, as well as training and vocational training measures may be useful as well.

➔ *Key aspects for the GE Action Programme: Develop and offer training programmes in the field of GE with a focus on legal and financial aspects, communication and management. Better integrate GE in existing higher education curricula.*

Results on key statement 4: Sustainable regional value chains for Alpine products and services should be systematically organized

With regard to sustainable regional value chains the opinion is balanced: 34% agree that in their region a systematic approach to promote innovative products and services is working well. 8% disagree, 6% fully agree and the rest is indifferent. Many improvements were suggested such as: de-taxing green and local sustainable activities, networking between farmers and customers, strengthening the position of farmers, local economic circles and regional currencies, better information and marketing on environmental benefits of local/regional products or more support from the regional government and gastronomy, as well as municipalities, companies, universities, entrepreneurial people, public funding agencies, distributers or NGOs are mentioned as key stakeholders to involve. Regarding the mechanisms that should be put in place the participants especially suggest to improve legal frameworks, networking & coaching, financial support, accessible information databases, and a bottom-up approach. It is important to involve all the stakeholders into the discussion from the very beginning and to integrate them in the decision-making process. 48% indicate that their region / city provides support for start-ups, 33% are aware of incentives for companies and entrepreneurs in the communication / marketing-sector. The LEADER programme was also mentioned. 30% of the participants said that the support provided is not enough.

➔ *Key aspects for the GE Action Programme: Consider the wide range of specific proposals concerning regional value added chains and address them to the right financial frameworks (e.g. Rural development funds).*

Results on key statement 5: Cities and municipalities should integrate sustainability principles into their spatial planning

67% of the participants are aware of the fact that their municipalities integrate sustainability principles into their spatial planning. Regarding the cooperation with neighbouring cities / municipalities the opinions vary. Some stated that cooperation is very difficult in practice as each city defends its individual interests and does not see the common interests. Many ideas are mentioned for «greening» the spatial planning: incentives for unsealing of land, force the implementation of public and sustainable transportation, sustainable buildings, involve young people, promote cycling, block car traffic, strengthen public transport, create more parks and green areas, greener water and waste management, revision of spatial planning legislation, enforce more effective implementation of existing planning goals and principles.

➔ *Key aspects for the GE Action Programme: Give cities and municipalities a clear role in the implementation of the GEAP.*

Results on key statement 6: Green Economy needs more specific and appropriate funding possibilities

The redirection of financial flows can occur on different levels and in different ways. The participants mentioned three financial sources that they consider especially relevant: Greening of public economic funding programmes (83%), "Greening" investment lines of private and public banks (71%), green public procurement (62%). Half of the participants are not aware of financing possibilities for Green Economy activities in their field of expertise. Other mentioned a few concrete examples, like a CO_2-bonus per ton of wood installed, bank loans for public investments, crowd funding or different grants for housing, mobility, and rural development. Most of the participants have not benefitted from green finance offers yet.

➔ *Key aspects for the GE Action Programme: Focus on financing aspects when elaborating the GEAP and promote instruments and good practice examples.*

Final remarks

In the end of the survey the participants were asked to rate and prioritize six key aspects. Key statement 2 «Natural capital and the ecosystem services of the Alps have to be in focus of political decision making at all levels.» is the best scoring statement with a weighted average of 5.33 points out of 6; key statement 5 «Cities and municipalities should integrate sustainability principles into their spatial planning» ranked second with 5.21 points. Third place went to key statement 1: «Green Economy should be boosted more strongly» with 4.98. Least important is key statement 3 «Green jobs need skilled people: 'green training & education' have to be strengthened! » with 4.3 out of 6 possible points.

Caroline Begle

Wolfgang Pfefferkorn

14.02.2018

GEAP Action Programme – Report of the Online Consultation

1. In your opinion, which are the policy fields of Alpine relevance that especially call for more ambitious measures?

	Mobility & Transport	Climate change & Resource efficiency	Tourism	Sustainable consumer behaviour	Urban / spatial planning	Regional development	Agriculture, Forestry & Fishery	(Renewable) energy supply	Environmental and nature protection	Innovation	Greening of financial flows	Encouraging cross-border eco-Innovation clusters/ networks	Valorizing nature	Green Economy in remote and rural areas	Greening governance for cities	Other	Responses
All Data	33 (63%)	28 (54%)	24 (46%)	23 (44%)	22 (42%)	21 (40%)	20 (38%)	20 (38%)	18 (35%)	18 (35%)	17 (33%)	14 (27%)	13 (25%)	13 (25%)	11 (21%)	**36 (69%)**	52
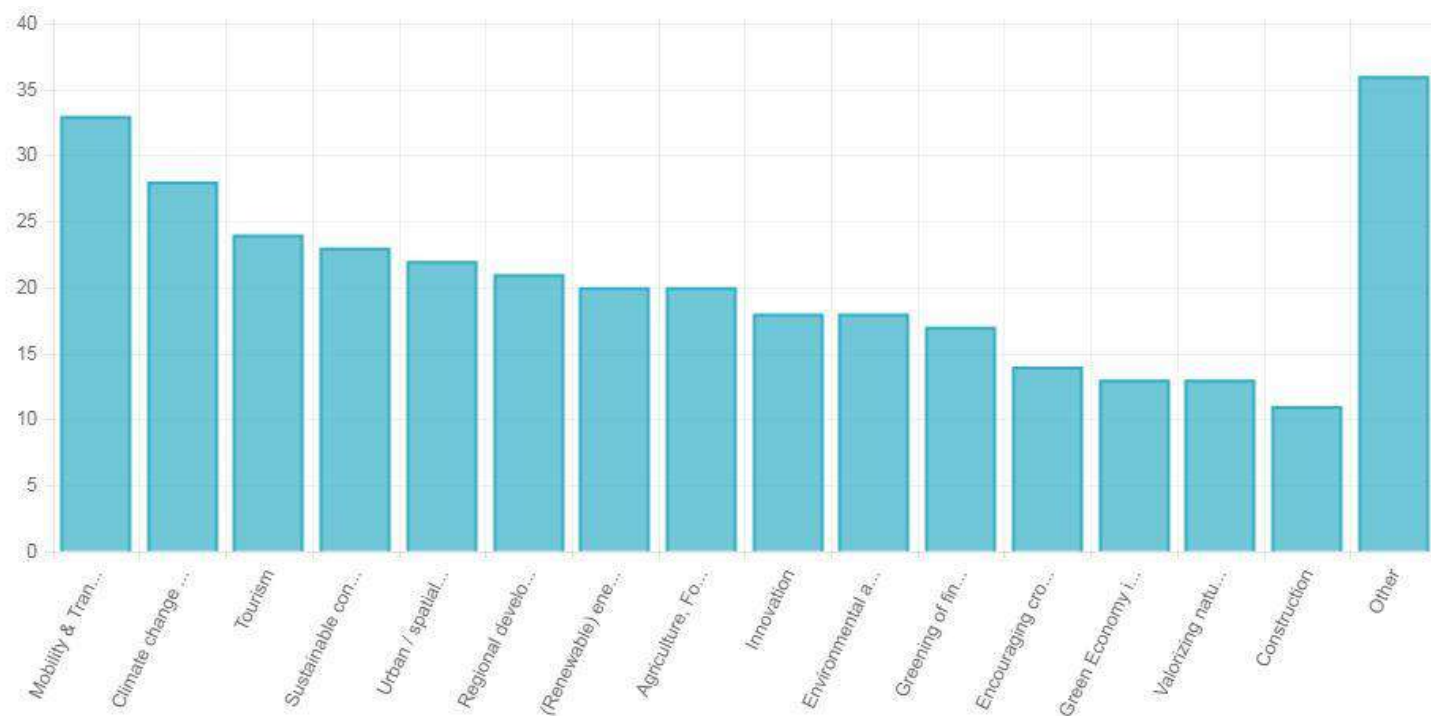
Text Responses

- Nachhaltige Land- und Forstwirtschaft in der ganzen Bandbreite vom Haupt- Zu- und Nebenerwerb; Nachhaltige Nahrungsmittelerzeugunung
- In the agricultural sector, we have already ambitious programmes within
- the framework of the Common Agricultural Policy (CAP). We neess a strong
- financial support of the 1st and 2nd pillar of the CAP and strong
- agricultural programmes that boost the economy of the whole Alpine
- region. The programmes shoult focus on the support of family farms.
- Operating sustainably shoult be a priority of European policy including
- economic, ecological and social aspects.
- de-tax (decrease unsustainable taxes) in mountain rural area, especially on work and real estate in some areas (as Italian Alps), since the "Bauernhof - fattoria di montagna - kmetija" is the principal asset of mountain rural farmer; improvment infra-stuctures concerning sustaionable mobility (train); many Others...
- Our association (Alpwirtschaftlicher Verein im Allgäu e.V., www.alpwirtschaft.de) represents herdsmen and alpine farming in the Allgäu-region of Bavaria. Our goal is to conserve or improve political and economic frame conditions that support familiy farms in the mountain area and alpine pastures. By their farming activities they play a key-role in providing rural development and nature protection. Within the CAP we focus on a strong financial support and strong agricultural programmes ensuring a sustainable activity of these traditional farms. The regulation of wolfs and bears in order to protect house animals is a indispensible precondition.
- The social dimension of Green Economy is totally missing. Well-being, quality of life and health are relevant topics too.
- In the agricultural sector, we have already ambitious programmes within the framework of the Common Agricultural Policy (CAP). We need a strong financial support of the 1st and 2nd pillar of the CAP and strong agricultural programmes that boost the economy of the whole Alpine region. The programmes should focus on the support of family farms. Operating sustainably should be a priority of European policy including economic, ecological and social aspects.
- Energy efficiency, soil consumption, digitalisation, sustainable and resilient supply chains, co-creation and management of knowledge, climate risk management, good practice sharíng, disaster risk reduction

2. Which of the above mentioned policy fields call especially for Alpine-wide cooperation?

	Mobility & Transport	Encouraging cross-border eco-Innovation clusters/ networks	Climate change & Resource efficiency	Environmental and nature protection	Tourism	(Renewable) energy supply	Greening of financial flows	Regional development	Agriculture, Forestry & Fishery	Green Economy in remote and rural areas	Urban / spatial planning	Valorizing nature	Sustainable consumer behaviour	Innovation	Greening governance for cities	Other	Responses
All Data	30 (57%)	24 (45%)	21 (40%)	20 (38%)	19 (36%)	16 (30%)	15 (28%)	15 (28%)	13 (25%)	12 (23%)	12 (23%)	11 (21%)	10 (19%)	10 (19%)	6 (11%)	18 (34%)	53
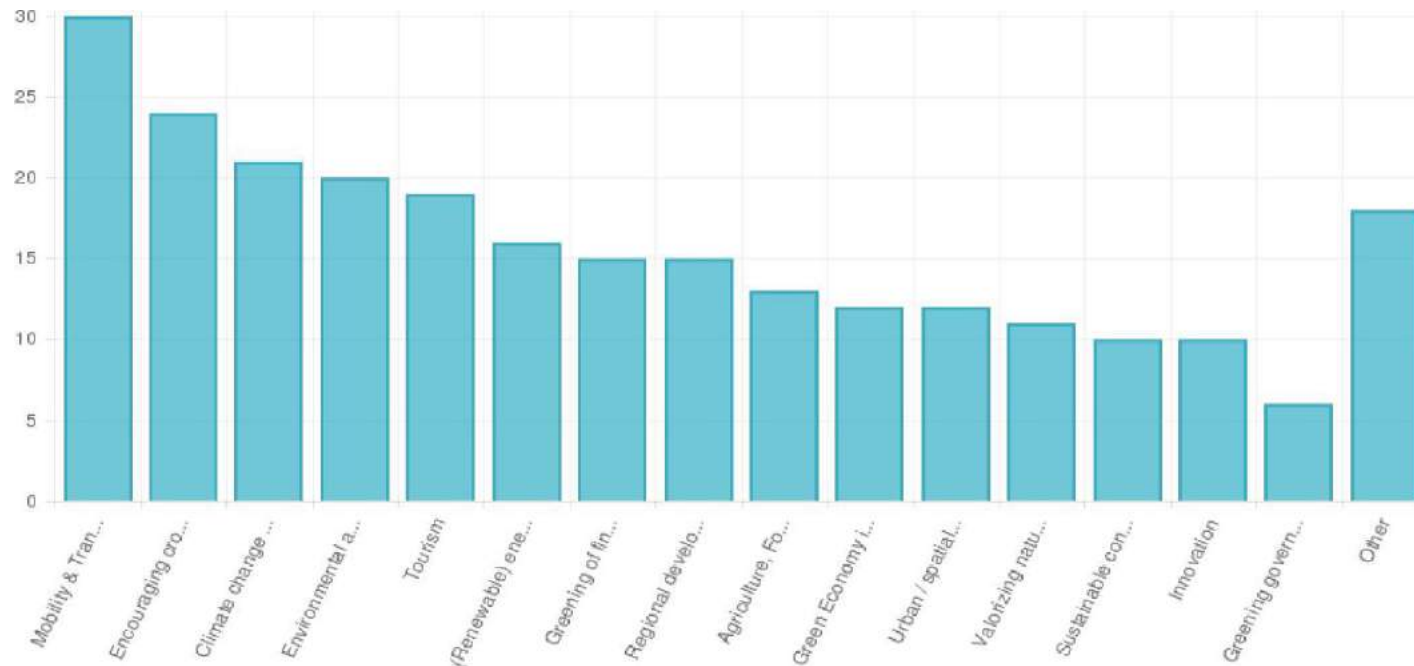
Text Responses

- Seuchenbekämpfung – z.B. TBC-Bekämpfung beim Rotwild; Bekämpfung großer Beutegreifer, es drohen massive Probleme bei der Ansiedelung oder der Ausbreitung z.B. vom Wolf oder Bär.; Anpassungen beim Umwelt- und Naturschutz z.B. Der Biber verursacht flächendeckende Schäden, auch an Naturschutzgütern – siehe Staffelsee !!!
- see comment in question 1
- See Question 1
- same as above
- see comment in question 1
- Energy efficiency, sustainable and resilient supply chains, co-creation and management of knowledge, climate risk management, good practice sharíng, disaster risk reduction

3. Do you think that in your country/region there is a systematic approach to follow up good-practice examples, and of their success factors in a Green Economy (e.g. by the regional economy authorities) and to communicate them to a selected target audience?

Text Responses

- Eine eigenständige Behörde gibt es nicht. Es gibt eigene Gremien, die Fachübergreifend arbeiten, z.B. der Kreisberatungsausschuss: Den Vorsitz hat hier der BBV Kreisobmann, die Geschäftsführung hat das Amt für Ernährung, Landwirtschaft und Forsten.
- The LEADER Programme within the framework is a good tool to implement and to follow up good-proctice examples of rural development. Family farms must be the foxus of the future CAP.
- yes, partly
- I think so. The ministry of agriculture and forestry with its agencies. For example there are prices for forest owners who work sustainable and LEADER Projects for rural development.
- N o
- No. Most of the approaches and projects are not evaluated . Therefore, there is less evidence which approaches should be disiminated or dismissed.
- indeed, political practices in my region in the last 30 years (let'say) seem to be the exactly reversal (opposite) the optimal handbook for good practices in Alpin space may reprsent... just mistakes: the public intervention provokes (intentionally or not) just catastrophes, the "private" - when not speculative - is almost disappearing, the "common "(cooperative) too weak... what to do?
- Yes in France of course there is a follow up on good-practice examples that are funded (privately or publicly) but if the project remains unknown (without any support, like I experienced with Innov Mountains, media dedidated to sustainable development in mountain areas), there is no or little follow up. On the contrary, no-good practice examples are going common in French mountain areas and we are a lot to wonder how can absurd projects can still be implemented (artificial snow, more cable cars but less natural snow so more hills reservoirs)
- Bergsteigerdörfer, z.B. Schleching in Bayern
- No
- yes
- in rare single cases
- partly
- not systematic enough --> room for improvement and impact measurement
- No
- good practice examples are role models, but finance and the geographical position far away from main transport connections are limiting factors
- no. the same procedure as every year. one follows the csu-bauernverband-lobby. nothing can change there. innovativ people are being ignored.
- Leader or environmental extensivation programms for famers

- no
- The urgency of action in the environmental field is not a shared value in Friuli Venezia Giulia. DEspite there are many positive examples, it is considered at least it is in second position, behind growth and jobs. So, a systematic approach to communicate and to follow up good examples is still needed.
- Not yet
- yes
- yes
- It does exist but I don't think it is always systematic
- yes
- no
- yes
- In the Trentino region, awareness and actions towards greener solutions are increasing, especially in transportation (incentives for electric cars and reinforced public transport networks are positive examples). However, communication about these measures feels somewhat insufficient and there is practically no direct policy to limit use of private transport (no circulation tax for example). Assuming local hydro energy is greener than alternatives, this is somewhat well advertised. The region is also problematically late in switching to greener economy, especially in the tourist sector which still heavily relies on skiing and for which the government has invested great amounts.
- The LEADER Programme within the CAP framework is a good tool to implement and to follow up good-practice examples of rural development. Family farms must be the focus of the future CAP.
- No, there is not a defined policy approach
- There is some approach but not yet fully systematic.
- No, not yet
- No
- There is a growing awareness of the issues of a green economy, bu certainly not yet "systematic"
- unluckily: no.
- No, I'm not aware of such a systematic approach. An exception may be the "climate and energy model region Programme" funded by the Climate and Energy Fund (Austria).
- Yes, the work on the Alpine Convention shows some very promising results.
- No
- YES
- Communication is bad, I think most of the people don't even know what Green Economy means.
- We are trying to
- There is a follow up, but not systematic.
- No
- no
- Yes.
- Yes

4. If not, who are the players who can carry out this task in your region or country (within your field of expertise)?

Text Responses

- Abgestimmtes Vorgehen von Behörden und Verbänden – z.B. Landratsamt, Amt für Ernährung, Landwirtschaft und Forsten, Bauernverband, Waldbesitzerverband, Almwirtschaftlicher Verein, u.a. Ein speziell eingerichtetes Organ ist der Kreisberatungsausschuss – siehe Frage 3

- Bayerische Bauernverband, Almwirtschaftlicher Verein

  Bayerischer Bauernverband, Almwirtschaftlicher Verein

  BBV
- Government
- no idea... a desparate situation: possibly just international trans-frontier cooperation, European projects - but carefully applied -, but local lobbies (above all the concrete & asphalt speculaiton lobbies) has yet the expertise to biasing the whole process!
- Chambers of Commerce and Industry, conseil départemental, conseil régional, syndicat intercommunaux, communautés de communes, communes, Etat, ministères, associations...
- Needs to be multi-stakeholder
- it would be best if it is organised by regions and NGOs and strongly supported by the government.
- should be devoloped on at a formal regional level (eg. "Regionalverbände") by a permanent working group consisting of GO and NGO stakeholders
- a combination over several policy levels, involving stakeholders.
- no new plaxers are needed, but Green economy should become mainstream
- The cities
- the regional developement has to be strengthened
- i.e. farmers with a vision (regenerative agriculture)
- Alpwirtschaftlicher Verein im Allgäu e.V.

  Bayerischer Bauernverband
- Almwirtschaftlicher Verein in Oberbayern
- Ministry of Agriculture; Prime minister, university
- Almwirtschaftlicher Verein Oberbayern
- Regione Friuli Venezia Giulia and Union of municipalities together should negotiate initiatives, in order to speak one common language
- I think more information and educational tools for people Torino know the connections and relationship with all' the player So the could ne players too

- I think more information and educational tools for people T orino know the connections and relationship with all the player. So the could ne players too
- the Cantonal Administration
- regional administration
- The government of the Trentino region is extensive and fairly independent. It has perhaps the largest influence and effectiveness in the change towards greener solutions.
- Bayerischer Bauernverband

  Almwirtschaftlicher Verein

  Alpwirtschaftlicher Verein
- Few companies or associations, either a couple of public authorities
- National government in close cooperation with local communities.
- Majors, Regional Managers, Regional Media
- Public administration at a local level, consultancy agencies
- firms offering innovative goods o services; the consumers; the local authorities
- Regional developpers / politicians in the community
- As regards climate change in Austria: Climate and Energy Fund; multiplier organisations such as the Climate Alliance, e5 initiative, and similar dissemination and transfer agents.
- everyone.
- Governments, Media, Civil Society

- Multidisciplinary group within national and local authorities that would first of all be capable of comprehending this topic and secondly that would communicate - with each other and with the public.
- NGOs like Plan B - Initiative for a Sustainable Development, CNVOS – Centre for information service, co-operation and development of NGOs

- The players are available with various associations, clubs, guilds, chambers of craftsand local authorities. There is a lack of networking and pulling together. Federal Environment Agency in co-operation with economic research institutes and chambers of commerce (on national and regional Level)

5. Which support measures are required to comply with this need?

	I strongly Disagree	I partly disagree	I partly Agree	I strongly Agree	Standard Deviation	Responses	Weighted Average
Encouraging dialogue with people who are economically active on the value of natural resources, ecosystems and biodiversity on local and regional level	2 (4%)	4 (8%)	16 (31%)	30 (58%)	11.18	52	3.42 / 4
Easily accessible and practical in formation prepared for local and regional level (online, print)	2 (4%)	5 (10%)	23 (44%)	22 (42%)	9.57	52	3.25 / 4
Better marketing and public relation activities	1 (2%)	10 (19%)	24 (46%)	17 (33%)	8.51	52	3.1 / 4
Improvement of the knowledge base (e.g. with regards to measurement, valorization, indicators or general understanding)	2 (4%)	12 (23%)	19 (37%)	19 (37%)	6.96	52	3.06 /4
Fostering cooperation between different sectors (e.g. social and environmental sector) in order to ach ieve common political approaches	3 (6%)	6 (12%)	11 (22%)	30 (60%)	10.5	50	3.36 / 4
Improvement of political framework conditions on EU or global level (e.g. pushing ecological connectivity, health topics, favorable framework conditions etc).	2 (4%)	12 (24%)	11 (22%)	26 (51%)	8.58	51	3.2 / 4
							3.23 / 4

- Encouraging dialogue with people who are economically active on the value of natural resources, ecosystems and biodiversity on local and regional level
- Easily accessible and practical information prepared for local and regional level (online, print)
- Better marketing and public relation activities
- Improvement of the knowledge base (e.g. with regards to measurement, valorization, indicators or general understanding)
- Fostering cooperation between different sectors (e.g. social and environmental sector) in order to achieve common political approaches
- Improvement of political framework conditions on EU or global level (e.g. pushing ecological connectivity, health topics, favorable framework conditions etc).

Comments

Text Responses

- Die Land- und Forstwirtschaft ist der Garant für nachhaltige ökologische Bewirtschaftung des Alpenraumes über Generationen hinweg. Den besonderen Bedürfnissen muss hier Rechnung getragen werden. Zusätzlicher Bürokratismus muss vermieden werden. Entwicklungsmöglichkeiten der landw. Betriebe müssen gegeben sein. Keine verklärte Bauernhofmuseums-Idylle. Nachhaltige Forschung i.S. der Landwirtschaft – z.B. Bekämpfung von Kreuzkräutern.
- We need a bottom-up approach and a real dialogue with all stakeholders, especially the farmers und land-owners in the Alpine Tegion. Political decesion-makers should focus on the aspect of subsisiarity. We do NOT need more bureaucracy.
- the reality is much diverse... as the protocols may prescibe; we need urgently new intervention instruments, otherwise the differential of growth in Alpine area will
- be increasingly more dramatic; e.g. ghost villages and desertification, out migration and speculation, etc.; consider that my reference area is North Friuli mountain area,
- almost abandoned and desertified; and people are in a knowldege trap, they just give the guilty to anyone, possibly to "green" parties, European policies, immigrants etc.
- Imply local communities, companies and associations that work for sustainable development in mountains areas
- don't forget to get the farmers into the boat. they own the land. don't ask people who only know in theory or have other ambitions (economic or political)
- Farmers have to be lissend, they want less bureaucracy an more liberty.
- None of these options are controversial and all seem affordable, so perhaps this question should have been framed as a preference question?
- We need a bottom-up approach and a real dialogue with all stakeholders, especially the farmers and land-owners in the Alpine Region. Political decision-makers should focus on the aspect of subsidiarity. We do NOT need more bureaucracy.
- The risk with the notion of "value of natural ressources" is that it often leads to direct commercial exploitation of thee resources, including further artificialization of nature, instead of preserving nature for its ecological services.
- Better Marketing is important too, in my opinion, but far less so than the other Topics.
- Within improvement of the knowledge base ... we already have a lot of knowledge, but it is dispersed and differently understood and therefore valued. We need to analyse the possibilities of implementation of natural capital and especially ecosystem services into concrete measures/procedures.

- linking remuneration and incentives for (political and economic) decision makers to their climate mitigation and sustainability performance

	This question is not relevant to me	Standard Deviation	Responses
All Data	7 (100%)	0	7

6. In which sector does your organization operate?

	Environmental and nature protection	Regional development	Services in education & training	Tourism	Climate change & Resource ...	Innovation	Valorizing nature	Agriculture, Forestry &	Fishery Encouraging cross-border eco-Innovation	Urban / spatial planning	(Renewable) energy supply	Other (Please Specify)	Green economy in remote and rural areas	Sustainable consumer behaviour	Mobility & Transport	Other	Responses
All Data	**27 (52%)**	20 (38%)	17 (33%)	16 (31%)	16 (31%)	16 (31%)	15 (29%)	14 (27%)	12 (23%)	12 (23%)	12 (23%)	12 (23%)	9 (17%)	8 (15%)	7 (13%)	17 (33%)	52
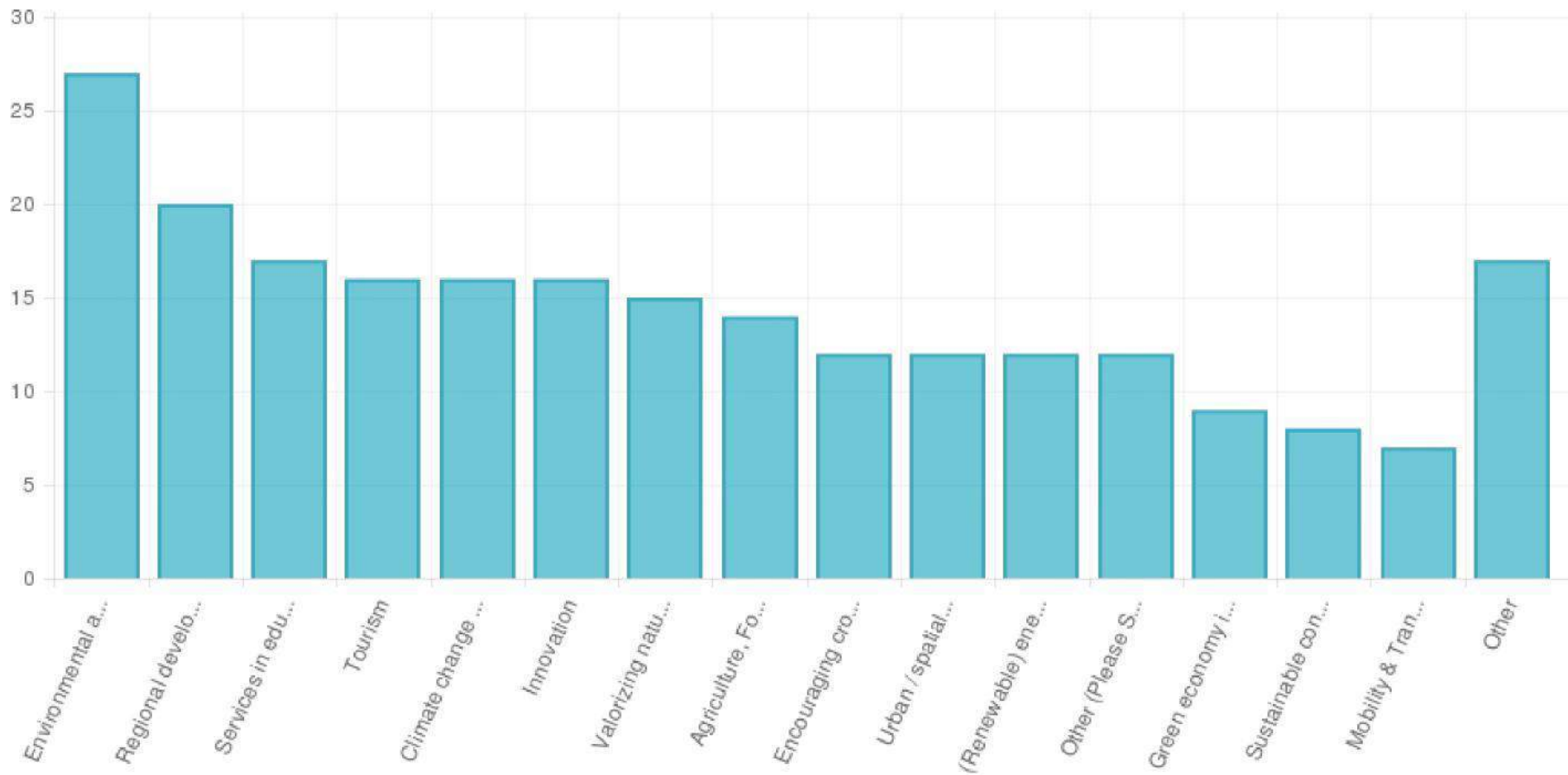
Text Responses

- The Bavarian Farmer's Association represents 150,000 family farms and land-owners in Bavaria, in sum around 750,000 people working and living in rural areas. We are in close cooperation with the farmers organisations in Germany, Austria and Alto Adige (IT). Agriculture and rural and economic development in mountain ereas are one of our most important topics on our agenda. Via the European Farmers Organisation (COPA) in Brussels, we are in close contact with all farmers organisations in Europe.
- Information about sustainable topics (Media)
- see qustion 1, we re supporting our members also by an advisory service
- The above mentioned policy fields are mainly NO sectors.
- education
- The Bavarian Farmers' Association represents 150,000 family farms and land-owners in Bavaria, in sum around 750,000 people working and living in rural areas. We are in close cooperation with the farmers' organisations in Germany, Austria and Alto Adige (IT). Agriculture and rural and economic development in mountain areas are one of our most important topics on our agenda. Via the European Farmers' Organisation (COPA) in Brussels, we are in close contact with all farmers' organisations in Europe.
- Transnational environmental cooperation
- development of mountain sport in not equipped areas
- Com m unication
- national administration, environmental control, climate services
- Media
- We are a Regional Nature Park in Switzerland

7. Are you aware of training possibilities in your field of expertise?

	Yes	No	Standard Deviation	Responses
All Data	**29** **(59%)**	20 (41%)	4.5	49

If yes, please specify:

Text Responses

- The Bavarian Farmers Association has an education and training centre for experts in the agricultural sector (see www.hdbl-herrsching.de). We offer wide range of seminars and platforms for discussions.
- Office for Nutrition, Agriculture and Forestry ; BBV; LKV (Further education special for animal needs)
- Newsletter: L21 and Klima- & Energiefond
- Alpenkiste der CIPRA Deutschland for education
- university studies, schools with a special focus
- I miss "agriculture" in Key STatement 3 !!! There certainly is need in this sector.
- We are giving some courses and good practice exemples on farm for herdsman and alpine farmers.
- Every employee should be aware of training possibilities in their field of expertise. There is no connection to the topic.
- Numerous CAS or DAS in sustainable management
- University (I'm a student)
- at university level
- Being a student I am aware of the different educational offers my university could provide. Yet this offer should per haps comprise further educational possibilities for those
- who are not directly enrolled. For example, the faculty of economics or environmental ethics should provide itinerant education in more remote zones or in tourist hubs, whose permanent or temporary population is not necessarily aware of environmental concerns.
- The Bavarian Farmers' Association has an education and training centre for experts in the agricultural sector (see www.hdbl-herrsching.de). We offer a wide range of seminars and platforms for discussions.
- I receive many information about possible trainings in my sector but sometimes they are not so "focussed" on my aspirations.
- EU organised, Peer2Peer, National Academy
- Green regional and local rural development
- Various University courses in different universities and universities for applied science, e. g.
- We could know about more of them
- ecosystem services
- The Austrian Federal Environment Agency offers trainings and capacity building for a wide range of environmental issues, especially on the interface between economy/administration and climate change mitigation and Adaptation.
- Tourism - totally naturally! (Can made by the SANU)

8. Would you be interested in a training programme?

	Yes	No	StandardDeviation	Responses
All Data	20 (41%)	29 (59%)	4.5	49

If yes, please specify your need for training:

Text Responses

- learn about indicators to measure the effect of own projects on green economy
- Regional Development, M easurem ent and I ndicators
- as theatcher or as student?
- it depends on what subject
- See answer above.
- Better communication skills, better understanding of the legal framework
- To know more about skills
- I would like to know more about this possibilities
- Sustainabilty and tourism; marketing etc.
- More legal training would be beneficial for me.
- Foster dialogue with different stakeholders and socio-economic evaluation of policy impacts
- Ien MacArthurGPP, EMAS, circular Economy
- How to enhance communication processes in the alps between different stakeholders – particularly locals on one hand and ngos / politics / science in the big cities.
- Green Economy Management
- Is nature protection a "green job"?
- Train the trainers programme for climate risk Management, preferably e-learning (e.g. via webinars)
- Tourism, Regional development, etc...

9. Which of the following measures would additionally be needed?

	Not useful	Somewhat useful	Useful	Extremely useful	Standard Deviation	Responses	Weighted Average
Brokerage platform for green jobs	6 (12%)	**20 (41%)**	12 (24%)	11 (22%)	5.02	49	2.57 /4
Stronger integration of GE issues in higher education Curricula	2 (4%)	13 (26%)	**18 (36%)**	17 (34%)	6.34	50	3 /4
More interdisciplinary education and training	1 (2%)	11 (22%)	17 (35%)	**20 (41%)**	7.26	49	3.14 /4
Specific training or coaching offers via intermediaries such as business chambers	5 (10%)	**22 (42%)**	19 (37%)	6 (12%)	7.58	52	2.5 /4
Greater number of re-training and vocational training measures	3 (6%)	**20 (40%)**	20 (40%)	7 (14%)	7.63	50	2.62 /4
							2.76 / 4
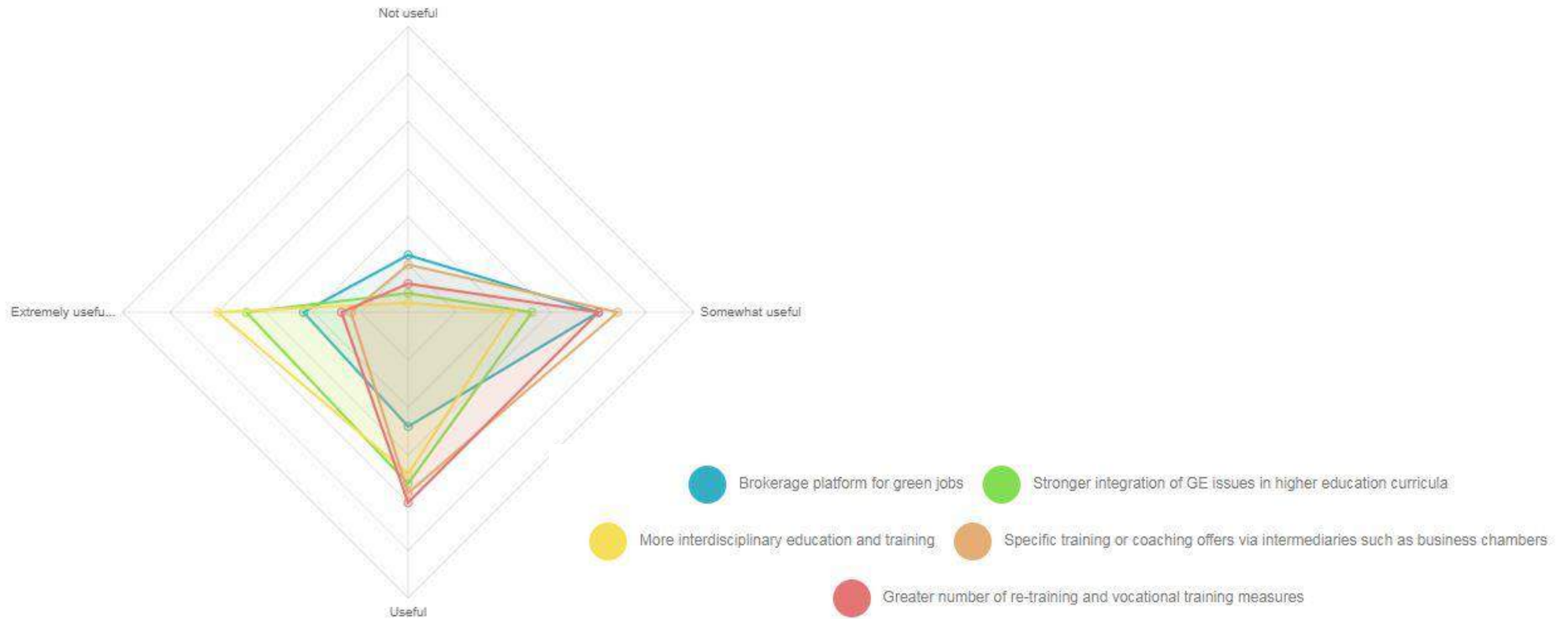
Comments

Text Responses

- We already have a wide range of offers (see comment question 7). It would be more useful to make of the existing institutions, seminars etc. instead of creating something new.
- i do not properly undestood
- integrated in mainstream curricula
- It might be useful if univeritary research is going more in the practice. And if there would be a greater dialogue between farmers an searchers as well as between farmers and politicians before taking decisions .
- I'm skeptical about business chambers being able to fulf ill education purposes in environmental ethics or economics. Their focus seems often too narrow and educational occasions might turn into lobbying occasions.
- We already have a wide range of offers (see comment question 7). It would be more useful to make use of the existing institutions, seminars etc. instead of creating something new.
- The educational needs to promote a been economy is not specific of the alpine territory
- Hm. Rather weird perspective on the question. We should think about what a skill is with regard to alpine regions and how different skills (theories, sciences, social, and crafts, farming, etc) could work together

	This question is not relevant to me	Standard Deviation	Responses
All Data	**2** **(100%)**	0	2

10. Do you think that in your region a systematic approach for getting aware of innovative products and services is working well?

	0	1	2	3	4	Standard Deviation	Responses	Weighted Average
I fully disagree - I fully agree	7 (14%)	12 (24%)	**17 (34%)**	12 (24%)	2 (4%)	5.1	50	1.8 / 4
								1.8 /4
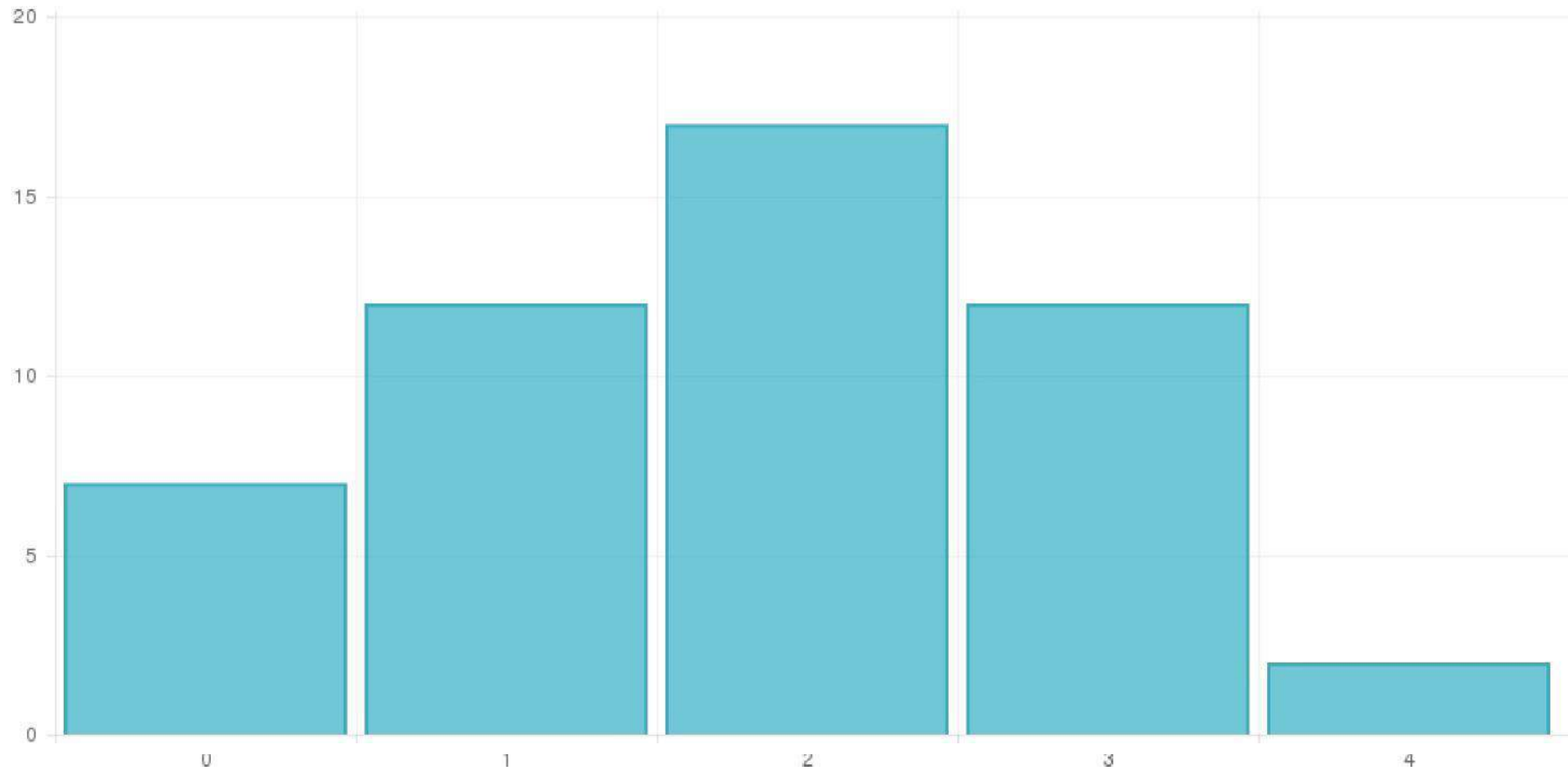
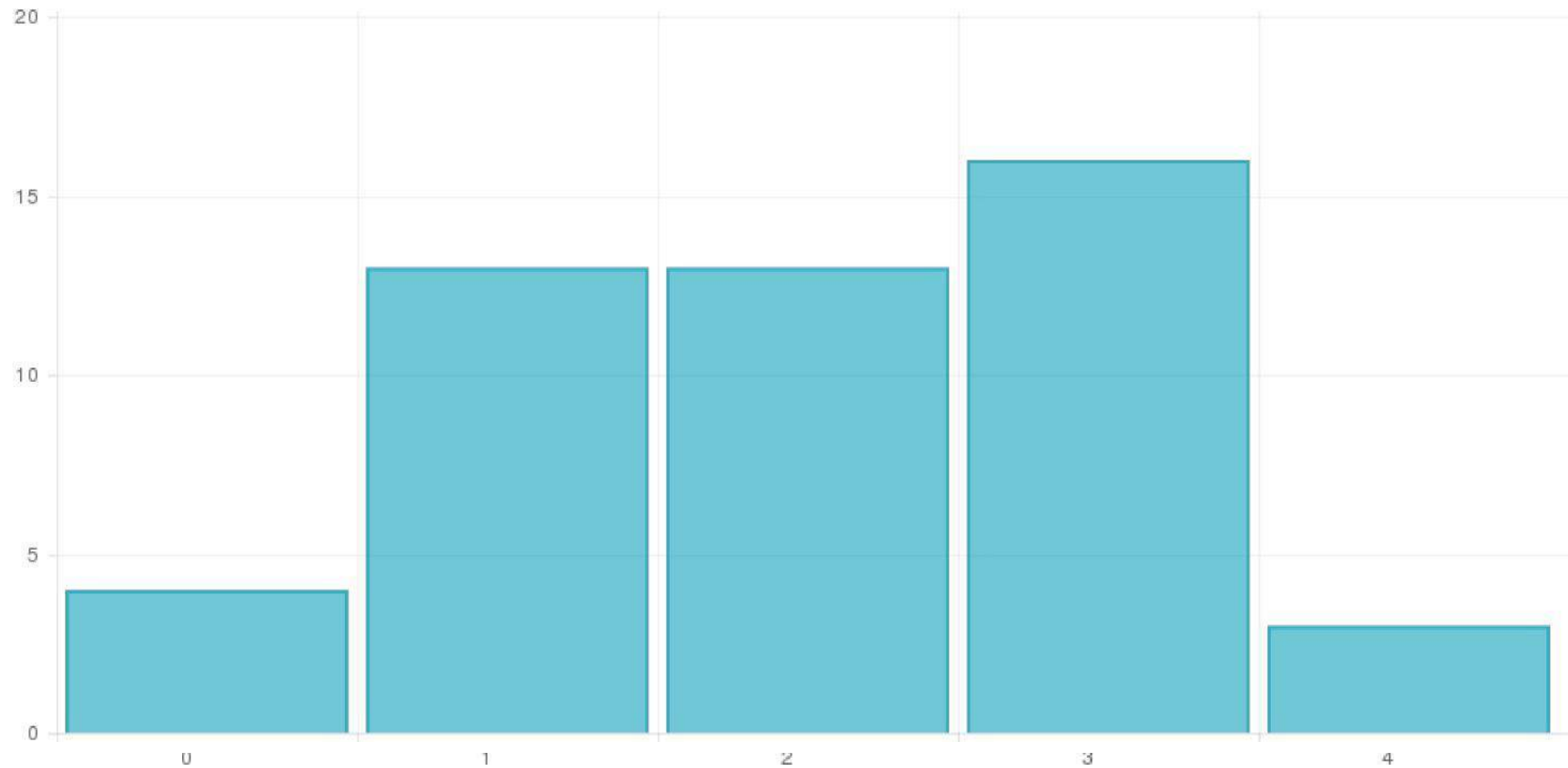## 11. Do you think that in your field of expertise a systematic approach for getting aware of innovative products and services is working well?

	0	1	2	3	4	Standard Deviation	Responses	Weighted Average
I fully disagree - I fully agree	4 (8%)	13 (27%)	13 (27%)	**16 (33%)**	3 (6%)	5.27	49	2.02 /4
								2.02 /4

12. What improvements can be made within the regional value chain?

Text Responses

- de-tax green and local sustainable activities

  Funding real independent medias in this field.
- Reorganising the producer - consumer relationship on a regional level (e. g. efficient information about regional products, well organised delivery services on local and regional level, integrating local consumer markets)
- Changin thre executive authority
- more stakeholders, better connections
- networking between farmer and customer
- Valorisation of regional and of mountain products. Position of farmers is too week in negiations with the commerce. Labels for mountain products should exist. The EU labels for PDO are good tools.
- trustfull mountain labels
- Der Umfang kann ausgeweitet werden und auf andere Produkte übertragen werden. In der Landwirtschaft funktioniert die Wertschöpfung z.B. bei Milch nicht bei Fleisch.
- Public administration at local level should have enough expertise to identify/talk/connect to green innovators that work in the territory of heir competence
- make industries or companies more aware that the waste of one can be the raw material of an other
- Regional identity is of great importance. The production of agricultural products in the Alpine Region is very important for the local economy. The position of the farmers has to be strengthened in the regional value chain. The EU labels for the protection of regional products (protected designation of origin "PDO" and protected geographical indication "PGI") are good tools to boost regional value chains in the agricultural sector.
- An extensive spread of the opportunities off ered by the recent research and innovation
- Functional organisation or leadership to organise the improvement ov value chain.
- Organizing the Stakeholder of reional value chains, educate them, have a permanent Management for that
- everything: defining regional values, collecting them systematically – and then market & sell them.
- No idea
- Local economic circles - regional currencies
- We need official regional authorities or regions as an administration level in Slovenia with special focus on human capital and skills.
- more political acceptance, increased presence in the media, to awaken enthusiasm
- better information and marketing on environmental benefits of local/regional products and Services (e.g. life cycle assessmen t, carbon footprint)
- More support from the regional politics, more support from the regional gastronomy, in general more support from the region

13. Who are the key players to involve (companies, entrepreneurial people, authorities, municipalities, other)?

Text Responses

- aktive Einbeziehung der Land- und Forstwirte, abgestimmt mit staatlichen Einrichtungen und verbandlicher Unterstützung
- It is of utmost importance to truly involve the farmers and land-owners in any discussion and decision-making process. They live in the mountain areas and most of the
- areas are in their possession. It ist the basis of their existence.
- Founding companies und municipalities
- All players mentioned in the question have a key role.
- all of them, also NGOs, farmers, tourism
- Companies, Stakeholders in the Region, authorities and municipalities
- actually, all of them, all of the available player
- at least all along the value chain
- We need radical changes in tax systems (positive discrimination of local and regional activities). So the most important prerequisite is an adequate tax legislation.
- likely all
- companies. authorities, university, foundations (money), business association
- authorities
- entrepreneurial people, municipalities, interessted in the region living people
- innovative farmers and citizen
- companies, farmers, authorities,
- Im Agrarbereich bäuerliche Organisationen.
- all the above mentioned players.
- maybe a stakeholder analysis should be done each time
- Companies, start-ups
- Both
- the local and the state government, togeter with the civil society
- companies, authorities/municipalities
- Entrepreneurial people and general public
- Companies, authorities

- entrepreneurial people
- The regional government plays the biggest role in the Trentino region. However, tourist offices are often very effective in directing consumer demand and therefore should be more linked to environmental concerns.
- It is of utmost importance to truly involve the farmers and land-owners in any discussion and decision-making process. They live in the mountain areas and most of the areas are in their possession. It is the basis of their existence.
- All of the above mentioned
- entrepreneurial assossiation, regional agencies, local and regional authorities
- All together
- ?
- Public funding agencies; companies
- all of the above, but add also customers and civil society
- NGOs
- producers, interm ediary companies, distributers (superm arkets), consumers
- entrepreneurial people and companies
- All ... companies, entrepreneurial people, authorities, municipalities ... but with official long-term support. Nowdays a lot of this actions are done in project that when finished end also enthusiasm of supporting functional value chains.
- entrepreneurial people, authorities, convinced actors, good networkers,
- legislators, regional managers, entrepreneurs/com panies, responsible consumers, cham bers of com merce, environmental organisations, administration authorities,
- regional companies, politics, authorities, municipalities, gouvernement

14. What mechanisms should be put in place? (Exchange of ideas, networking, accessible information base, coaching, improved legal frameworks, other)

Text Responses

- wichtig auf die praxisbedürfnisse abgestimmte Rahmenbedingungen, keine überzogenen Umweltschutzauflagen, Entbürokratisierung
- see question 13. Wie need a bottum-up approach, not an top-down approach. To get acceptance for any projects, plans or measures, it is of utmost importance to imvolve and integrate all stakeholders (farmers, land-owners) from the very beginning into the discussion and decision-making process.
- Exchange of ideas
- im proves legal frameworks, financial support
- improved legal Frameworks, accessible Information base, Coaching & networking

- tran-frontier forum, learing form the examples of the Others, a kind of benchmark practices...
- everything cited + conferences, labels and annual event to promote sustainable activites and services in the Alps.
- s. a.
- well organized collaboration schemes with binding objectives and transparent reporting
- improve legal framework
- networking information base, coaching
- Implementing projektmanagers in several levels for exchange of ideas, networking, accessible information base, coaching, improved legal frameworks. Possibilities to
- finance (single) people with good ideas (not only institutions), which are valuable for the environment, climate, etc.
- networking
- verbesserte rechtliche Rahmenbedingungen sind sehr wichtig.
- all the above mentionen mechanisms.
- networking
- Coaching and training
- Both
- networking first, and that should be followed vby other measures
- Networking, improved legal frameworks
- Networking, accessible information base
- exchange of ideas, networking
- networking
- Coaching seems highly valuable -- see also the idea of itinerant educational resources off ered by universities.
- see question 13
- We need a bottom-up approach, not a top-down approach.
- Networking , coaching and a better normative framework
- networking+knowledge gathering and sharing, financing
- the appropriate mechanisms depend on the specification of the Projects, ideas
- Nertworking, sharing information of common platforms, financial incentives
- all of them
- All of the abovementioned mechanisms.
- Basically Networking together with improved legal Framework
- All of the above
- networking, exchange of ideas
- Improved legal frameworks and coaching.
- Exchange of ideas, networking, accessible information base, coaching, improved legal and financial frameworks,
- improved legal Frameworks, Networking, Coaching
- Networking, Coaching, Exchange, Accessible information base

Comments

Text Responses

- Comment to No 15: only because citizen won a competition (Alpenmodellregion)
- To get acceptance for any projects, plans or measures, it is of utmost importance to involve and integrate all stakeholders (farmers, land-owners) from the very beginning into the discussion and decision-making process.
- trust and respectability is required, withoaut longterm economic promotion by authority there is no chance of success

15. Does your region / city provide incentives for attracting sustainable companies / entrepreneurial people to get started?

	fiscal	support of start-ups	legal advice	communication / marketing	Other (please specify)	Responses
All Data	7 (26%)	13 (48%)	4 (15%)	9 (33%)	8 (30%)	27
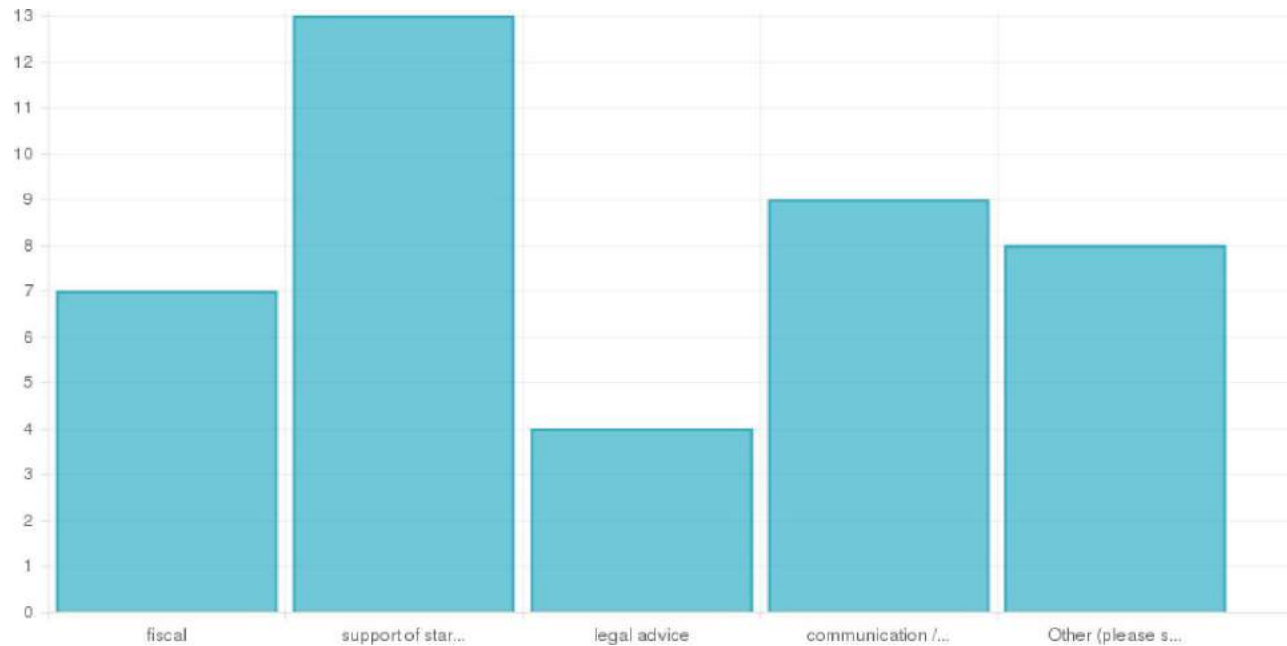
Text Responses

- With the LEADER Programme, we have a good tool to implement regional development projects ind the Alps.
- actually, the situation in the area is so bad, and the confidence in public initiative so low, that simply people, capitals, forms are escaping ...
- Not enough support from anyone, I failed with creating an enterprise for Innov Mountains this year so I will try a new status to make the media survive.
- Tyey dont provide real incentives
- Général coaching and advice
- With the LEADER Programme, we have a good tool to implement regional development projects in the Alps.
- Don't know.
- Unfortunately not

16. Is your city / municipality integrating sustainability principles into their spatial planning?

	Yes	No	Standard Deviation	Responses
All Data	28 (67%)	14 (33%)	7	42

17. Do they cooperate with neighbouring cities / municipalities in order to achieve a sustainable use of their territory (e.g. 'saving surface')?

Text Responses

- ganz vereinzelt – gemeindeübergreifende Bebauungspläne
- Most of the cities / municipalities do not cooperate. The problem is that every community has an own interest in settling business und creating commercial perks to achieve tax payments.
- Yes, with "Landkreis"
- don't know
- It depends on the Projects. Usually the willingness to cooperate is low.
- not really, beside a ubiquitous conformist "green" rethoric (and narrative), nothing is really done; there are plenty of possible "zero cost" intervention, easy to carry on, in order to improve the situation but none does nothing...
- y e s
- Y e s
- only on a very low level without visible effects
- partially
- I donknow
- the first steps are made
- not really yet (same for question 16)
- yes
- No
- Unfortunately not
- Yes but not really
- i guess
- yes
- I hope so
- cooperation with neighbouring municipalities is rare
- Most of the cities / municipalities do not cooperate. The problem is that every community has an own interest in settling business and creating commercial parks to achieve tax payments.
- I do not think they have a common vision on that. Instead they are still using surface for commercial activities development

    LEADER

- Do not know
- cooperation is very difficult in practise; each city defends its own interests, and does not see the common interest .
- no
- Not really, rather competition.
- no
- In part
- Probably
- No
- insufficient
- Yes.
- Yes they do. For the protected area Pfyn forest and many others.

18. Do you have any further ideas on 'greening' your city's/municipality's spatial planning? Text

Responses

- Produktionsintegrierte Ausgleichsmaßnahmen – soweit diese überhaupt erfordelich und sinnvoll sind.
- The development of the inner circle ot the communities has to be pushed before using arable land in the greenfield (e.G. Management of unused and empty buildings in the villages). The use of arable land has to be substantially minim ized.
- implementation of existing knowledge about sustanability in municipalities, greening politics
- block the car traffic... we have in our region (so far as I know) the highest car per capite in the world... 7,6 cars per capite; creation of pedestrian islands; so teh paradixical effect, much poples without car (elderly, young, commuters, in winter, tourist...) have no mobility chances; then similar politics sustained by tax facilitaitons for housing, transport, education, production, services, etc.
- yes, from water and waste management that could go greener (eco-friendly, phyto-épuration) to more green in the city and towns around (trees, flowers, honey production on roofs..;), green roofs, green building, solar panels on roofs, waste energy production.... there is so much to do
- Without radical rethinking of the present economic approaches in Europe ("growth") all measures in detail seem to be "peanuts". On the other hand: "You have no chance, but seize it" (Herbert Achternbusch).
- No
- yes
- Nachhaltige Raumplanung soll den Flächenverbrauch berücksichtigen.
- Integrating the youth, better explain the possible benefits of cooperation

- No
- impose x m2 of green spaces every x m2 of building and introduce vegetated facades for the communal and cantonal administration buildings at first and then to every "official buildings" (school, sports facilities...)
- strenghten public transport,
- In the valley of Primiero, many apartments are empty for many parts of the year. There could be an incentive to f ill them up during these periods. For example, there could be an incentive for tech start-ups to use empty holiday apartments for their temporary offices providing that the services required by a startup are also in place (fast internet, networking possibilities, etc.)
- The development of the inner circle of the communities has to be pushed before using arable land in the greenfield (e. g. management of unused and empty buildings in the villages). The use of arable land has to be substantially minim ized.
- There could be space for some ideas
- regional Provision with Food, renewable energies, construction material, services
- By creating more parks and green areas
- this takes too much time...
- Revision of spatial planning legislation.
- Enforcing more effective implementation of existing planning goals and principles.
- Involve young people
- Promotion of cycling - not only cycleways but also activities to promote cycling, the culture and rules of cycling (sensors for bicycles detection & counting) ... cycling days ...
- yes, common municipal trade tax; regional trade settlement policy; urban densification; revitalization of inner cities; functioning passenger transport; investment in village infrastructure; Strengthen regional markets, build locally with wood, strengthen and sustain regional, family agriculture; regional, renewable energy supply;
- incentives for unsealing of land, forcing public and sustainable transport, sustainable buildings

19. The redirection of financial flows can occur on different levels (local, regional, national, international) and also in different ways. The following list gives and overview on financial sources that could be redirected. Please choose three that you consider especially relevant.

	„Greening" of investment lines of private and public banks	„Greening of public economic funding programmes (on local, regional, national, EU-level)	Offers for crowdfunding of green projects	Green public procurement	Other (Please Specify)	Responses
All Data	30 (71%)	**35 (83%)**	19 (45%)	26 (62%)	4 (10%)	42
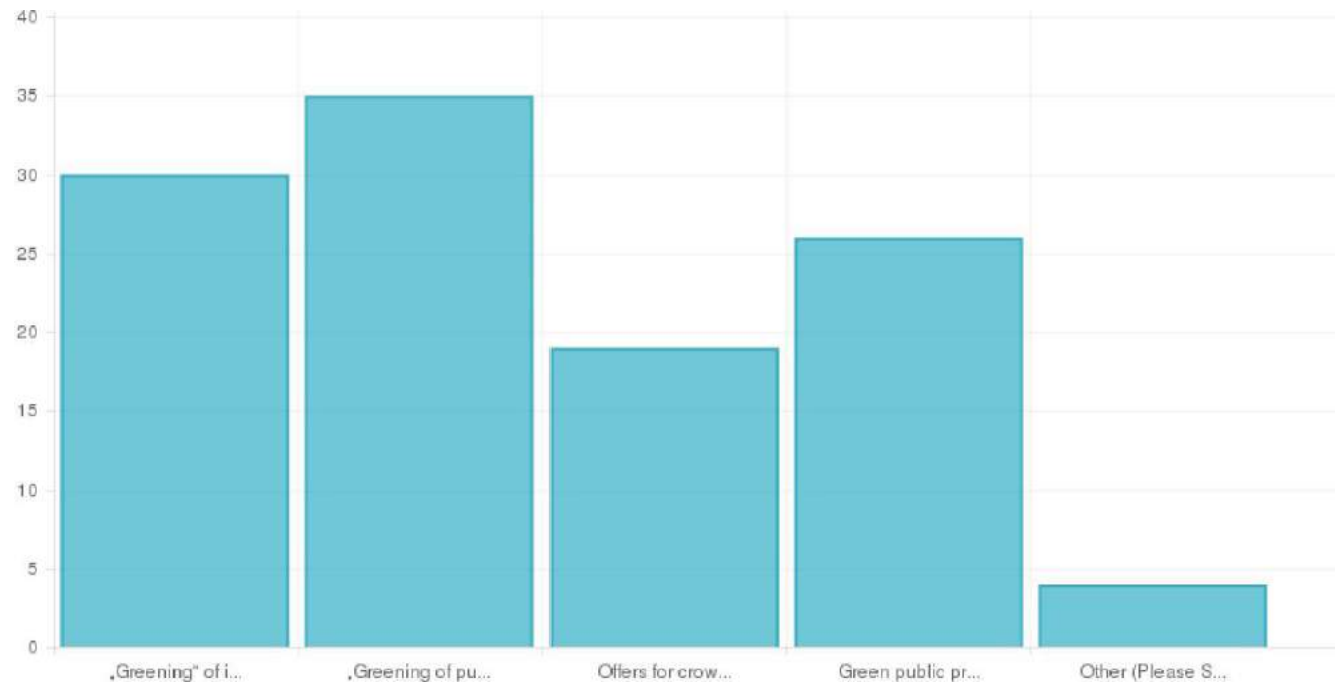
Text Responses

- Better Labelling of unsustainable and sustainable investments
- The taxation system is the post important tool to redirect the economy to a greener one, public funding is limited .
- Regional CO_2 storage certificates for entrepreneurs and communities

20. Are you aware of financing possibilities for Green Economy-activities in your field of expertise?

Text Responses

- Yes
- No
- yes
- as an enterprise, no, that is why I will create an association
- Yes
- there are no possibilities
- partly
- we are providing such oversights
- In am not involved
- not yet
- no
- Yes
- Green bonds
- No
- yes
- no
- Starting to be aware
- yes
- Yes
- No
- no
- yes
- no
- No, not my focus of Expertise.
- no
- No
- very few, very bureaucratic, too research-heavy
- no
- No.
- Yes

21. Do you have concrete examples for financing mechanisms which could undergo a 'greening procedure'?

Text Responses

- Nein
- No
- agriculture
- No
- financial sector (ethical investment)
- No
- no
- crowdfunding
- no
- No
- no
- different labels, for exemple the OPL (One Planet Living) between the WWF Suisse, a commune and a real estate agency
- not
- N o
- no
- Transfer of Profits to tax paradises, the growing time pressure due to global competition,
- Loans from banks could have more favorable rates if used with greening purposes
- subsidies to renewable energies (wind, water, sun) is so high, far above the economic value, that it encourages absurd investments, like very small hydroelectric plants
- without real interest for electric production, but with severe impact on the last natural mountain rivers ; same for solar farms on the ground.
- no
- Bank loans to cities / municipalities for public Investments.
- No
- Yes; CO^2 bonus per ton of wood installed; recognition of wood product storage for ecological compensation measures for communes; Introduction of value-added money
- from the place of production to the end user
- all kinds of grants (housing, mobility, rural development, agricultural aid etc.)
- Yes, with Innotour (its from the SECO in the Switzerland).

22. Do/Did you make use of offers for 'green financing'?

Text Responses

- Yes
- no
- no
- no
- No
- no
- no needs
- No
- not yet
- yes
- no
- Not yet, but I would like to do so
- No
- no
- not yet
- no
- Yes
- No
- no
- No
- yes, my organization makes use of EU funding and "Agences de l'eau" funding directed at minim izing impacts of buildings
- no
- Not applicable.
- No
- I do not know any in the wood sector that supports regional activities
- yes

Comments

Text Responses

- In the agricultural sector, the 1st and 2nd pillar of the CAP is crucial for the income of family farms. We need sufficient and appropriate EU funding and co-financing by the member states. Without the support of family farms in the Alpine regions, we will lose the mountain landscape and the high value of nature and biodiversity based on mountain farming.
- This survey is very bad.
- Green finance must focus on regionality rather than research and development; So all funding or financing instruments are too complicated and suitable only for financial professionals.

	This question is not relevant to me	Standard Deviation	Responses
All Data	9 100%)	0	9

23. To get an idea on the stakeholders' attitude towards 'Green Economy' the last question asks for giving priorities to the different key statements. Please indicate the importance of every key statement by giving 1 to 6 stars (6 stars = very important):

	1	2	3	4	5	6	Standard Deviation	Responses	Weighted Average
Key statement 1: Green Economy should be boosted more strongly	3 (6%)	0 (0%)	5 (10%)	6 (13%)	7 (15%)	**27 (56%)**	8.79	48	4.98 / 6
Key statement 2: Natural capital and the ecosystem services of the Alps have to be in focus of political decision making at all levels.	0 (0%)	0 (0%)	4 (8%)	5 (10%)	10 (21%)	**29 (60%)**	9.98	48	5.33 / 6
Key statement 3: Green jobs need skilled people: 'green training & education' have to be strengthened!	3 (6%)	3 (6%)	9 (19%)	7 (15%)	12 (26%)	**13 (28%)**	3.93	47	4.3 / 6
Key statement 4: Sustainable regional value chains for Alpine products and services should be systematically organized.	0 (0%)	3 (6%)	7 (15%)	8 (17%)	13 (27%)	**17 (35%)**	5.72	48	4.71 / 6
Key statement 5: Cities and municipalities should integrate sustainability principles into their spatial planning.	0 (0%)	2 (4%)	1 (2%)	8 (17%)	11 (23%)	**26 (54%)**	8.96	48	5.21 / 6
Key statement 6: Green economy needs more specific and appropriate funding possibilities	1 (2%)	6 (13%)	2 (4%)	9 (19%)	8 (17%)	**21 (45%)**	6.57	47	4.7 / 6
									4.87 / 6

Key statement 1: Green Economy should be boosted more strongly

⭐⭐⭐⭐⭐ 4.98

Key statement 2: Natural capital and the ecosystem services of the Alps have to be in focus of political decision making at all levels.

⭐⭐⭐⭐⭐ 5.33

Key statement 3: Green jobs need skilled people: 'green training & education' have to be strengthened!

⭐⭐⭐⭐ 4.3

Key statement 4: Sustainable regional value chains for Alpine products and services should be systematically organized.

⭐⭐⭐⭐⭐ 4.71

Key statement 5: Cities and municipalities should integrate sustainability principles into their spatial planning.

⭐⭐⭐⭐⭐ 5.21

Key statement 6: Green economy needs more specific and appropriate funding poss ibilities

⭐⭐⭐⭐⭐ 4.7