

Action Programme for a Green Economy in the Alpine Region

Environmental Research Plan of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Reference number (FKZ) 3717 15 101 0





Action Programme for a Green Economy in the Alpine Region

Ву

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.

Date of finalization:

April 2019

The authors are responsible for the content of this publication.

Graphic design: Kann Medien - Groschlattengrün - Germany

Proofread by: PK Robbins Walzer

Photo credits:

Cover: unsplash / Lucas Wesney

Page 19: Shutterstock, Inc. / Cherries's

Page 28: unsplash / Martin Adams

Page 36: Shutterstock, Inc. / Andrey Popov

Page 45: Shutterstock, Inc. / Olga Danylenko

Page 53: Shutterstock, Inc. / Rawpixel.com

Page 62: Shutterstock, Inc. / goodluz

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

Coordination of the Green Economy Advisory Board:

Chair

Hans-Joachim Hermann, Richard Landgraf (Umweltbundesamt Deutschland - German Environment Agency)

Permanent Secretariat of the Alpine Convention

Aureliano Piva

Members of the Green Economy Advisory Board:

Austria

Josef Behofsics (Bundesministerium für Nachhaltigkeit und Tourismus - Federal Ministry for Sustainability and Tourism)

Germany

Andreas Burger, Björn Bünger (Umweltbundesamt Deutschland - German Environment Agency)

Italy

Luca Cetara (Italian Delegation to the Alpine Convention, Eurac Research, European School of Economics)

Slovenia

Urška Kušar (Direkcija Republike Slovenije za vode - Slovenian Water Agency)
Tatjana Orhini Valjavec (Ministrstvo za okolje in prostor - Ministry of the Environment and Spatial Planning)

Observers of the Green Economy Advisory Board:

Kaspar Schuler, Andreas Pichler (CIPRA International)
Claire Simon, Magdalena Holzer (Alpine Towns of the Year Association)
Veronika Schulz (Club Arc Alpin)

Contracted consultants:

Marianne Badura; Dorothea Palenberg; Wolfgang Pfefferkorn; Sabine Zillmer

Focal points of the Alpine Convention:

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 Cooperation)

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

Execut	ive Summa	ıry	9
1		n Economy Action Programme for the Alpine region: How the Alpine Convention can pave the a green economy	11
1.1		history, definition and context of the Alpine Convention's Green Economy Action Programme	11
1.2		ine region and the need for a green economy: A specific case of urgency	11
1.3	Weavin	g the threads: The strategic context for the GEAP	12
1.4	Alpine	green economy 2030	13
2	How to	trigger societal transition? The approach of the GEAP	14
	2.1	How to achieve transition: Key insights from current change literature	15
	2.2	A participatory development process: Priorities shaping the action programme's setup	15
	2.3	Key-criteria for the selection of the action fields for the GEAP	15
3	Becom	ing operational: Action fields as framework for organising initiatives	16
	3.1	What makes an effective action field? Definition	16
	3.2	Framework for the action fields	16
4	Action	fields of the GEAP	20
	4.1	Greening finance and the financial support structures	20
		4.1.1 Relevance of the action field and compliance with the criteria	20
		4.1.2 Definition of the action field	20
		4.1.3 Proposed actions of action field "Greening finance and financial support structures"	21
	4.2	Encouraging eco-innovation	29
		4.2.1 Relevance of the action field and compliance with the criteria	29
		4.2.2 Definition of the action field	29
		4.2.3 Proposed actions of action field "Encouraging eco-innovation"	30
	4.3	Greening regional development	37
		4.3.1 Relevance and definition of the action field and compliance with the criteria	37
		4.3.2 Proposed actions of action field "Greening regional development"	38
	4.4	Valorizing ecosystems and biodiversity	46
		4.4.1 Relevance and definition of the action field and compliance with the criteria	46
	4.5	4.4.2 Proposed actions of action field "Valorising ecosystems and biodiversity"	47
	4.5	Living and working in a green economy	54 54
		4.5.1 Relevance of the action field and compliance with the criteria4.5.2 Definition of the action field	54 54
		4.5.3 Proposed actions of the action field "Living and working in a green economy"	54 55
	4.6	Digital society as a cross-cutting challenge	63
Е	The Alm	ing Canyantian's antians to baset the transformation process with a lang tarm view	4.1
5	5.1	ine Convention's options to boost the transformation process with a long-term view Play the "policy card"	64 64
	5.2	Governance, networking, and communication	64
	5.3	Establish a continuous learning process for the further development and definition of future	04
	3.3	green economy actions	65
	5.4	Include selected actions in future mandates of the AC's working groups and platforms	65
	5.5	Stimulating funding for the GEAP	65
	5.6	Involvement of young people	66
	5.7	Civil society participation	66
6	Monito	ring and evaluation	66
7	Referer	nces	67

LIST OF TABLES

iable 1.	Action 1.1. Floriding a classification (taxonomy) of Alpine green projects, assets and activities.	21
Table 2:	Action 1.2: Public-private-(people) partnerships (blended finance) to share risks, costs and returns.	22
Table 3:	Action 1.3: Blended finance to provide microcredits on the local level in the Alps.	23
Table 4:	Action 1.4: Promoting green starts-ups & crowd funding on the local level.	24
Table 5:	Action 1.5: Influencing future EU funding programmes and activities for sustainabilisation of diverse regional, national and international funding and support programmes.	25
Table 6:	Action 1.6: Promoting set-up of and investment in green bonds and green/ social impact banking products.	26
Table 7:	Action 1.7: Promoting examples and endorsement of intermediaries for the creation and application of sustainable financial support schemes in the tourism sector.	27
Table 8:	Action 2.1: Comprehensive campaign for creating a supportive atmosphere for innovation at the local level through entrepreneurs and change agents.	30
Table 9:	Action 2.2: Support of innovative ideas in the Alpine region.	31
Table 10:	Action 2.3: Support of green Alpine business & innovation clusters.	32
Table 11:	Action 2.4: Encourage a constructive environment for green innovation on the company level.	33
Table 12:	Action 2.5: Supporting the Alps as a green, climate-neutral trademark.	34
Table 13:	Action 2.6: Sustainable digitalisation in rural areas.	35
Table 14:	Action 3.1: Support the further development of the Alpine Partnership for Local Climate Action.	38
Table 15:	Action 3.2: Collection of green ideas and provision of proactive on-the-spot information events in rural areas.	39
Table 16:	Action 3.3: Co-operative green solutions for green urban-rural relationships.	40
Table 17:	Action 3.4: Encourage the development of green economy pilot regions.	41
Table 18:	Action 3.5: Promote NZEB (Net Zero Energy Buildings) on local and regional level.	42
Table 19:	Action 3.6: Encouraging regional and local actors to achieve climate-friendly hotels and restaurants.	43
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.	44
Table 21:	Action 4.1: ESS knowledge hub.	47
Table 22:	Action 4.2: Awareness raising on greener value chains in the field of forest management and biodiversity conservation.	48
Table 23:	Action 4.3: Campaigns, dialogues and trainings on ESS in an economic context on the local level.	49
Table 24:	Action 4.4: Initiating, monitoring, evaluating and promoting pilot implementation on the local level.	50
Table 25:	Action 4.5: Fostering and assessing business cases in the field of ecological connectivity.	51
Table 26:	Action 4.6: Reducing Alpine natural hazards through ecosystem-service-based forest management.	52
Table 27:	Action 5.1: Make green choices easier on the local level.	55
Table 28:	Action 5.2: Promoting and analysing green job offers.	56
Table 29:	Action 5.3: Promoting green job profiles and increasing "green" professional competences.	57
Table 30:	Action 5.4: Exploring the consumer view on an Alpine green trademark.	58
	Action 5.5: Promotion of ecologically sustainable cooperative purchasing groups.	59
Table 32:	Action 5.6: Changing minds in work and life for cooperative green approaches through concrete instruments.	60
Table 33:	Action 5.7: Promotion campaign highlighting role models and good practices on the local level for a greener life & work.	61

LIST OF FIGURES

Figure 1: Illustration of interconnection between action fields and thematic areas under the umbrella of the Alpine Convention. 16

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.

17

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 Board¹ 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.
- 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 participants 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:

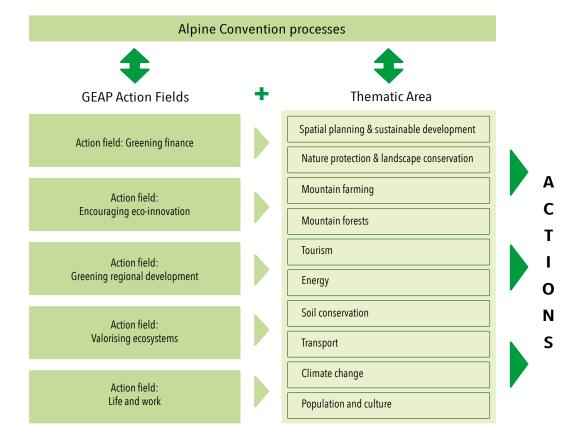


Figure 1: Illustration of interconnection between action fields and thematic areas under the umbrella of the Alpine Convention.

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.

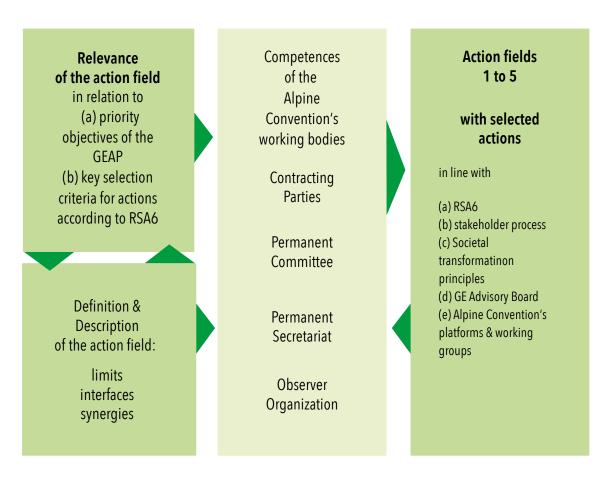


Figure 2: Structure of the sub-chapters 4.1 to 4.6 presenting the relationships between action fields, the proposed actions and the Alpine Convention.

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
	 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 elments:
	· 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 sustainable 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 house-holds) 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 (crossborder 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

 $\label{thm:continuous} \textbf{Table 9: Action 2.2: Support of innovative ideas in the Alpine region.}$

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 stake-holders/ 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 CO2-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 Mayors², Alpine Pearls³, Alliance in the Alps⁴). 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:
	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

 $\label{thm:control_control_control_control} \begin{tabular}{ll} Table 17: Action 3.4: Encourage the development of green economy pilot regions. \end{tabular}$

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 1 st 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

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" 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

 $\label{thm:consumer_sum} \textbf{Table 30: Action 5.4.: Exploring the consumer view on an Alpine green trademark.}$

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 framework 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.

Permanent Secretariat of the Alpine Convention

Herzog-Friedrich-Strasse 15 A-6020 Innsbruck

Tel.: +43 (0)512 588 589-12

Branch office in Bolzano/ Boze

Viale Druso / Drususallee 1 I-39100 Bolzano / Bozen Tel.: +39 0471 055 357

www.alpconv.org info@alpconv.org