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Mediterranean organization structure and strengthening of innovation capacities for sustainable development no. 1G-MED08-289

Strategic and Operational Plan in Inner-Karst region, Slovenia

Med Programme

Priority-Measure 1-2

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Editor:	*Mateja Simčič (RDA of Inner-Karst region, ltd.), Jana Nadoh Bergoč (RDA of Inner-Karst region, ltd.), Dr. Špela Stres (Institute "Jožef Stefan")*
Authors:	(IJS) Dr. Špela Stres, mag. Primož Kunaver, Marjana Zidarič Chapter 6 – prepared by the Inovacijski center: mag. Gorazd Lampič (Elaphe), Andrej Detela (IJS), doc.dr. Joško Valentinčič (FS)

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IDENTIFICATION SHEET

1. IDENTIFICATION SHEET

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Author(s)	Dr. Špela Stres (IJS), mag. Primož Kunaver (IJS), Marjana Zidarič (IJS) Chapter 6 – prepared by the Inovacijski center: mag. Gorazd Lampič (Elaphe), Andrej Detela (IJS), doc. dr. Joško Valentinčič (FS)
Keywords	Ecology, innovation, (eco)innovation, MEDOSSIC, Programme MED, EU, Inner-Karst Region, Strategic and operational plan
Abstract **(for dissemination)**	The study deals with the strategic and operational plan in Inner-Karst region in Slovenia. The Strategic and operational plan's aims are listed. The local workshops with key stakeholders were performed. The synthesis of the social, economic, productive, innovation situation is defined. The main stakeholders, tools and difficulties for innovation and eco-innovation are listed. The analysis of the coherence among intervention needs and possible strategic lines and operational objectives are listed. The good practices and pilot projects are described.

Part 2:
EXECUTIVE SUMMARY

2. EXECUTIVE SUMMARY

The strategic and operational plan in Inner-Karst region covers the methodology and the key concepts for the strategic and operational plan of Inner–Karst region: its aims, methodological approaches and definitions. A context and territory analysis is included and it is based on the participative process in the territorial context, and its strategic lines and the operational plan are supported with good practices.

In the Chapter “Methodology and Key Concepts for the Strategic and Operational Plan” an explanation of the Strategic and Operational Plan's aims is presented as predisposed by each partner of the MEDOSSIC project in the field of WC4 – Development of Strategic and Operational Plans for establishing pilot Structures in the regions.

In the Chapter “Context and Territory Analysis” social, economic, productive, environmental and technology & innovation situations are presented. The region has a total area of 1.456 km2 and a population of 52.083 inhabitants. It is economically relatively poorly developed. People in the region are striving for a better living standard and are well educated even though there are only a few knowledge centers to support them. Most people (almost 70%) work in the industry and the importance of tourism still has a greater development potential. The analysis of the features of Inner-Karst region reflects several strengths worth of planning ahead. The excellent natural potential for eco-tourism and the use of natural resources, a favorable strategic geographical location and the quality of life are the major strengths of the region. The whole region is lacking support from institutions for fostering entrepreneurship and innovation in the region. There is a lack of support for innovation in management in the majority of companies, a lack of interest to cooperate on a personal level as well as between companies, and a lack of synergy between the Inner and the Karst part of the region.

In the Chapter “The Participative Process in the Territorial Context”, local workshops and a series of meetings on eco-innovation are presented. At these workshops, public bodies, support organizations on the regional level and selected enterprises were presented and were able to share their views on the strategic priorities related to eco-innovation and their perspectives of the regional support environment. Representatives from the selected enterprises expressed their needs in the area of eco-innovations and shared their views regarding the strategic priorities in the region. Public bodies in general support regions with incubators, technology parks and information via web portals, but such support is very weak in the Inner-Karst region, with the exception of VEM points. The financial crisis has brought stagnation to the area of investments in the Research and Development sphere, and one of the problems is also the lack of support for innovation in management in the majority of companies. Members of the regional Council for Innovation have noticed that the ecological stance is gaining its importance within companies as well as within market demands and regulatory obligations. Their coordinator pointed out that the innovation potential in the region is not fully used and that it would be necessary to improve the innovation culture in the region. Although the aims of the Medossic project and the needed input have been explained to the stakeholders, a certain lack of understanding of project aims could be noted. In some cases the stakeholders have expressed only their narrow view on the topics and did not comment on the topics that did not tackle their role directly.

In the chapter “Strategic Lines” facts, which it is necessary to be attentive to, are presented. When planning the strategy for the development and use of innovations, it is necessary to be careful to not oversee the initial motivation and concepts that are the basic elements of any innovation-related activities. Each activity influences the outer ecosystem and the overall effect should be taken into account when analyzing the

ecological impact of each specific activity, such as the introduction of a new product or service. If the strategy and the goals are defined compatibly with the natural flow of a specific subject they can result as planned. The actual problems of ecology cannot be expressed merely in the language of economy; and the same goes for the expression of solutions to these problems. The bottom-up approach and the top-down approach can be put into practice only hand in hand. Tourist potentials are not fully exploited and the innovative approach to use natural resources is of paramount importance. A new model for such tourism can be developed. In the region there is no interest for cooperation neither the personal level nor between companies. There are some difficulties to establish a synergy between the Inner and the Karst part of the region. Bigger companies in the Karst part of the region are less successful because of their weak R&D activities. A positive motivation is when the goals are clearly of a pure ethical nature and beneficial to the society – and that is what is needed in the region.

In the chapter "The Operational Plan" some of the good practices are identified. ARX: The concept of window wing "ARX view" is a novelty in the area of building fittings as the window wing is applicable in any window fitting, regardless of whether it is made of plastics, wood or aluminum. Eco Chamber: EcoCámara is a web-portal that is a central information point for eco-innovation in the region. Sustainable tourism: the Province of Rimini started an important run in the Tourist field, which has been the starting point for the challenge of Rimini toward sustainable tourism, in a walk that has seen the active participation of the public and private sectors in order to build a common base to develop a strategy of sustainable tourism.

Three pilot projects have been identified and their content and financial resources and demands have been defined in detail. The identified pilot projects are:

- Information and consulting service in the area of eco-innovation
- Networking of key stakeholders
- Eco-innovation good practice web portal

Part 3:

METHODOLOGY AND KEY CONCEPTS FOR STRATEGIC AND OPERATIONAL PLAN

3. METHODOLOGY AND KEY CONCEPTS FOR STRATEGIC AND OPERATIONAL PLAN

3.1 STRATEGIC AND OPERATIONAL PLAN'S AIMS

The Strategic and Operational Plan (SOP) is predisposed by each partner of MEDOSSIC project in the field of WC4 – Development of Strategic and Operational Plans for establishing pilot Structures in the regions.
The finality of the SOP, in brief, is to define the strategic lines and the operational modalities for establishing a reception office for potential innovators, entrepreneurs, and SMEs who wants to operate in the framework of innovation, in order to stimulate the eco-innovative process.

3.2 METHODOLOGICAL APPROACH

The present Strategic and Operational Plan (SOP) has been preceded by a range of activities resulting in the realization of analysis, evaluations, reports and documents preparatory to the SOP itself. In particular, within phase WC3 of MEDOSSIC project have been predisposed the Existing Situation Analysis, reports on the identified national Good Practices and Investigational Institutional Settings, each for every partner territory of the project, as well as the Benchmarking, as synthesis document of analyses ref. WC3, and the Investigational Institutional Settings (WC4).

The Strategic and Operational Plan (SOP) is articulated as follows:
➔ **General framework of the existing situation**: Chapter 4 "Context and territory analysis".
After the introductory part, there is the examination of the general framework of the existing situation, through an analysis of the context and of the territory, with an introductory part related to elements of greatest relief in terms of social, economic and productive, but also environmental and technological situation, underlined both in synthetic descriptive way, and through the SWOT analysis, structured in order to point out the main requirements for the area of reference.
➔ **Participative process:** Chapter 5 "The participative process in the territorial context".
The situation about the main institutional stakeholders and the tools at disposal for the (eco)-innovation is underlined in a synthetic way. The modality with, in the different territorial partners of project contexts has been applied the participative process and how the different subjects participated in the process, is described, with some anticipation on the modalities of collaboration which will be adopted for the definition of the most operational aspects of the plan.
→ **SOP's strategy and objectives: Chapter 6 "Strategic Lines"**
The activities of analysis and investigation, the results and the emerged needs, their presentation and discussion in an approach based on the participation and on the involvement of social and economic actors of the territory bring to a joint, shared and legitimated definition of the common vision or a global objective to act on, to pursue the objectives of (eco)-innovation of the territory. Therefore, the section describes the global

objective, the strategic lines and the operational objectives in accordance with the emerged needs and the existing resources.

→ **Operational Plan: Chapter 7 "Operational Plan" and Chapter 8 "Good practices"**

SOP ends with the definition of the operational plan for the implementation of pilot project: it contains the description of *what, why, how and when* the partners will realize the pilot projects. The definition of single operational level is tightly related with the evaluation and monitoring indicators of the achieved results and with the selection of possible good practices that can be helpful for the implementation of the pilot projects themselves.

3.3. DEFINITIONS OF KEY CONCEPTS

The SOP is based on some **key concepts**:

- **Innovation:** an innovation is the implementation of a new or significantly improved product (good or service) or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relation. The minimum requirement for an innovation is that the product, process, marketing method or organizational method must be new (or significantly) to the firm.
- **Invention**: an important distinction is normally made between invention and innovation. Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out into practice (Fagerberg 2004).
- **(Eco)innovation:** it presents all forms of innovation activities resulting in or aimed at significantly improving environmental protection. Eco-innovation includes new production processes, new products or services, and new management and business methods, the use or implementation of which is likely to prevent or substantially reduce the risks to the environment, pollution and any other negative impact of the use of resources throughout the lifecycle of related activities.

Furthermore, when exploring eco-innovation, the following classification is provided:

1. ENVIRONMENTAL TECHNOLOGIES:

- pollution control technologies including waste water treatment technologies
- cleaning technologies to treat the pollution released into the environment;
- cleaner process technologies: less polluting new manufacturing processes and/or more resource efficient than relevant alternatives;
- waste management equipment;
- environmental monitoring and instrumentation;
- green energy technologies;
- waste supply;
- noise and vibration control.

2. **ORGANIZATIONAL INNOVATION** for the environment:

- pollution prevention schemes;

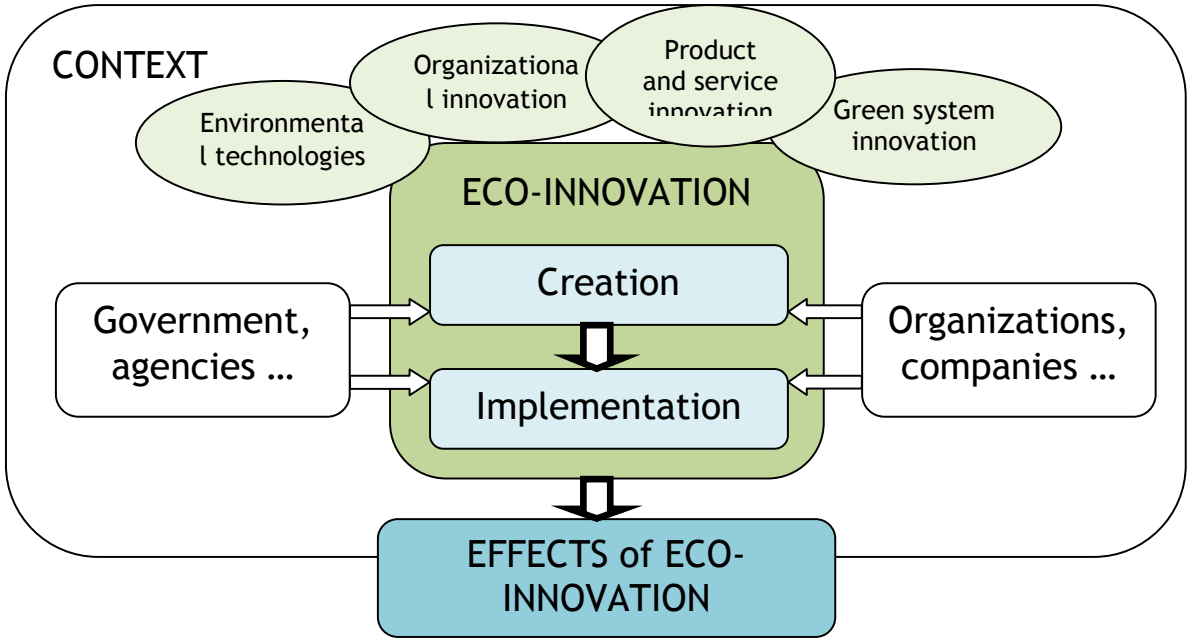
- environmental management and auditing systems: formal systems of environmental management involving measurement, reporting and responsibilities for dealing with issues of material use, energy, water and waste;
- chain management: cooperation among companies so as to close material loops and to avoid environmental damages across the value chain (from cradle to grave).

3. **PRODUCT AND SERVICE INNOVATION** offering environmental benefits:
   - new or environmentally improved products (goods) including eco-houses and buildings;
   - green financial products (such as eco-lease or climate mortgages);
   - environmental services: solid and hazardous waste management, water and waste water management, environmental consulting, testing and engineering, other testing and analytical services;
   - less polluting and less resource intensive services (car sharing is an example).

4. GREEN SYSTEM INNOVATIONS:

1. alternative systems of production and consumption which are more environmentally friendly than existing systems (biological agriculture and renewable-based energy systems are examples).

Figure 1: The process of eco-innovation

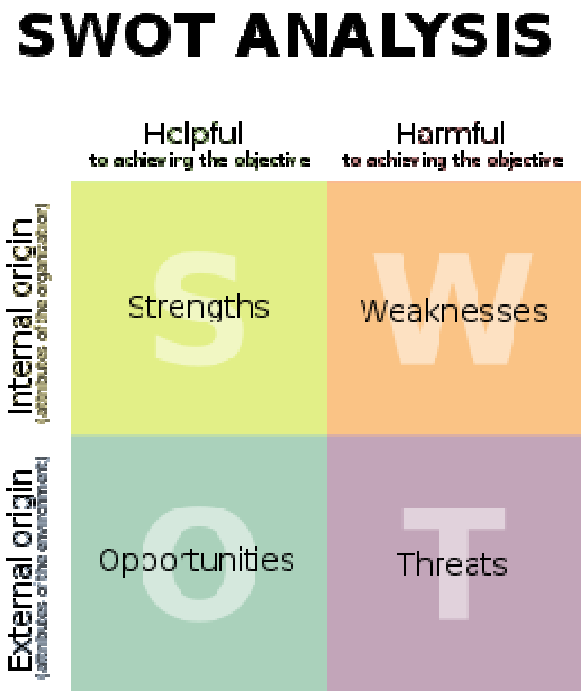


- **Stakeholders** where stakeholders are people, corporate bodies and organizations deriving from the public sector, companies and private sector, from the civil society

that, through their resources, competences, role or actions, influence or are influenced by the process of eco-innovation

- **Partnership and participative procedure (or participated planning)**: the tool of the involvement of the stakeholders and the creation of partnership of various nature is based on the conviction that development is not a subject of governments and administrations but of the community, operators and civil society in general, and on the principle that, governments and administrations must play the role of facilitators and animators in the development process, as well as of agree plans and collaborate with the territory. Therefore, the participative procedure foresees an involvement of all the actors that can directly or indirectly be involved in eco-innovation, according to a *bottom up approach* in order to share the priorities of intervention and define the lines of action with all the decision makers, actors as well as last recipients of impacts of eco-innovation, thus stakeholders.
- **SWOT analysis.** It is a tool of strategic planning used to evaluate the points of *strength* (Strengths), *weakness* (Weaknesses), the opportunities (Opportunities) and threats (Threats) of a project or "in an enterprise or in every other situation where an organization or an individual must take a decision to reach an objective". The finality of the SWOT analysis is therefore to identify existing points of strength and weakness , opportunities and threats in the territory and sector context or in key phenomena/contexts, in order to synthetically and clearly analyze and individuate the initial situation.

Figure 2: SWOT Analysis



Part 4:
CONTEXT AND TERRITORY ANALYSIS

4. CONTEXT AND TERRITORY ANALYSIS

4.1 SYTNHESIS OF THE SOCIAL, ECONOMIC, PRODUCTIVE, ENVIRONMENTAL AND TECHNOLOGY & INNOVATION SITUATION

Inner-Karst region is a statistical region in the south-west part of Slovenia. Its most important natural heritage is represented by the Postojna Cave and the intermittent Lake Cerknica. Geographically, it is one of the smallest regions of Slovenia and the least densely populated, having a 5 times lower population density than the Central Slovenia region.

Inner-Karst region is economically relatively poor developed; in 2006 it only contributed 1.9% of Slovenia‘s GDP. In 2007, craft enterprises represented almost a half of all enterprises in industry and services (45.9%). Most of those enterprises, 27.8%, are situated in the Central Slovenia region, only 2.9% are situated in Inner-Karst region, which represents the lowest share of craft enterprises throughout Slovenia. With an average of only five persons in paid employment, enterprises in this region were among the smallest in the country. Even though the employment rate in 2007 was the highest in the country with 64.5%, a large number of people from Inner-Karst region worked in the neighboring regions. In the employment structure, employees are working in services (45.6%), industry (48.1%) and agriculture (6.3%). Inner-Karst region attracts only 1.3% of the total number of tourists in Slovenia, most being from Italy (24.97%).

The economic situation in the region is not encouraging (progression is less than the Slovenian average); the industry needs a new push, which is to a great extent related to the critical mass of human resources with an adequate level of knowledge for the development break-through of regional economy. It is necessary to reach a higher level of connections between local economies and centers of knowledge in the creation of an adequate support environment (technology centers, industrial zones, development of support services...), in which the enterprises would be able to develop effectively.

Inner-Karst region is developing the concept of eco-region for the region. In this respect, the region is trying to take advantage of the natural, cultural, social, economical and environmental benefits that it holds. These areas present a developmental opportunity for the region, directed towards the implementation of sustainable tourism, and a great market opportunity as the analysis shows that there are no areas in Slovenia, where all economic, social and environmental activities would be directed in an ecologically healthy way of residing and living. Namely, Inner-Karst region has plenty of possibilities to direct its development energy to this objective. The vision of the region is: ”We will become a recognized, economically stable and developmentally ecologically-directed region that will encourage self-development by use of natural and cultural resources and by stimulating the development of human resources. We will become known for the healthy way of living and as a well-known tourist destination.”

People in the region are striving for a better living standard and are well educated even though there are only a few knowledge centers, except in the city of Postojna, where there is a centre of several secondary schools. In the last few years an Undergraduate Study Programme has been developed in Postojna, but only as part of Higher Professional Education. There are no faculties set up.

Life-long learning is well-organized in Postojna, Cerknica and Ilirska Bistrica. On the national level the educational structure - in spite of the improvements - is still not sufficiently adapted to the needs. In some areas such as medicine, science and

technology, there is a lack of staff. The reasons for this lie in the educational system, which is not aimed at the needs of the market or responds to these needs too slowly. The number of tertiary students in the region per 1.000 inhabitants is even above the national average, which indicates the need of the young population to achieve a better living standard than they have now. The percentage of the young population who study (aged 19–26), also exceeds the national average, and the percentage of women involved in the tertiary education as well, even though there are only 8.7% female researchers in the region. These data are simulative.

Most people in Inner-Karst region (almost 70%) work in the industry. This is followed by services with less than 20% of employees, agricultural activities employees who constitute a good seven percent, while a bit more than 3% of the population is employed in construction. Within the industry, most people find employment in the wood and metal processing industries (17.2 and 16.3 %). Even though the employment rate in 2007 was the highest in the country with 64.5%, a large number of people from Inner-Karst region worked in the neighboring regions.

Inner-Karst region is a statistical region in the south-west part of Slovenia. It is one of the smallest regions in Slovenia and the least populated region in Slovenia, having a 5 times lower population density than the Central Slovenia region. It has an excellent geographical location and it is characterized by rich natural and cultural heritage, a high level of stocking of forest conservation and a genuine environment. These potentials are reflected in the less industrially developed parts of the region, although, due to a well presented wood industry, the manufacturing sector has a very high economic relevance to the region. The construction sector, wholesale and retail with other business activities, has the priority. Transport is also important for the region due to the country's major highway passing the region's territory, crossing the main road to the port of Rijeka and the railway crossroad to the port of Koper and to the port of Rijeka. The importance of tourism still has a great development potential considering particular nature features of the landscape that includes the following municipalities: Bloke, Cerknica, Ilirska Bistrica, Loška Dolina, Pivka and Postojna. The region has a total area of 1,456 km2 and a population of 52,083 inhabitants.

A constant population growth was typical for this region in the last decade. Its popularity among immigrants was the main reason which has lately contributed to a slightly higher population density. The region is the second smallest in Slovenia by surface. Accordingly, the number of enterprises is also smaller. There were 2,302 enterprises in the region in 2006 according to the AJPES data, which was 2.3% of the entire Slovenia (100,569 enterprises).

4.2 SWOT ANALYSIS

Table 1 - SWOT of the SOCIAL SYSTEM

SWOT analysis of the social and demographic conditions of the territorial area and intervention needs indication.

SWOT SOCIAL SYSTEM	
STRENGTHS	**WEAKNESSES**
- Well educated population in the region - The prepared detailed regional development action plan for 2010 to 2012 that has been published lately presents a good base for the further development of the region - Comparatively (with other Slovenian regions) high degree of homogeneity of the region which enables a consensus for action - municipalities with very similar climatic features, landscapes and needs - Relatively suitable investments of the state in organisational environment and the preparation of development strategies	- Low gross fixed capital formation in the region per capita - The basic research is not present in the region at all - The lack of presence of public R&D institutions in the region results in situations where business entities in the region supports, via taxes, R &D activities in the other regions and not in their own region - The possibility for knowledge mobility from knowledge centres outside the region is not enough exploited - The number of researchers in the region is relatively low - The share of female researcher is very low (only 9%)
OPPORTUNITIES	**THREATS**
- The innovation culture has a significant potential for growth - Innovation potential in the young educated population - Installation of best practices in the legislation in the field of innovation	- Brain drain from the region to the other regions, countries that are more attractive for talented young experts - Some other regions, countries absorb EU funds more effectively than is the case in Inner-Karst region
NEEDS/ INTERVENTIONS NECESSITIES	
1.1 The innovation culture should be activated through the education process, from households to enterprises 1.2 Values like the ecological stance and innovative spirit have to be encouraged with appropriate measures including an educational system that contributes to the knowledge-based society with the promotion of practical innovation activities of the students, ICT based activities, eco-innovation, lifelong learning etc. 1.3 Promotion of knowledge transfer between research institutions and businesses, as well as educational institutions, also establishing rules, procedures and best practice models for a systematic technology transfer 1.4 Establishing measures to increase the share of female researchers in the region	

Table 2 SWOT of the ECONOMIC AND PRODUCTIVE SYSTEM

SWOT analysis of the economic and productive conditions of the territorial area and intervention needs indication.

SWOT ECONOMIC AND PRODUCTIVE SYSTEM	
STRENGTHS	**WEAKNESSES**
- Some larger enterprises in the region are successful and have well-known brands, mostly in the furniture industry, metal processing, food processing industry and plastics - Promising industries such as electrical, electronic and chemical industries are rising above the prevailing traditional sectors (wood processing, metal processing …) - Some large companies in the region already have experiences in domestic and EU research projects - The regional economy is very export oriented	- A low value added per employee in the regional economy compared to the national average - Lack of critical mass and insufficient cooperation between researchers and the industry - Relatively low level of exploitation of national and EU financial support assigned for the further development of enterprises in the region among the smaller business entities - Private expenditures in R&D are on the low level, those which exist are concentrated in large companies (e.g. Kolektor LIV, Perutninarstvo Pivka, Kovinoplastika Lož). Expenditures in R&D in SMEs are rare - Predominantly large companies in the region are more export oriented, mainly with mid-tech manufacturing products. The professional level of employees is also mainly linked to the mid-tech level of enterprises development - Lack of effective links between the vertical production chain and associated services
OPPORTUNITIES	**THREATS**
- Relatively good existing potentials (educated work force, natural resources, location …) for reaching an economical development break-through with appropriate support actions - EU incentives and practices (foreign investment, technology transfer, freedom of movement of capital, people, goods and services) - More effective use of R&D funds on the national and regional level - Possibilities of evolving synergies between ecology and the economic success - Growing eco awareness of the final customers, which will reward eco products, eco services and eco organisations - Use of the positive effect of eco-innovation	- Outflow of private capital to other regions or abroad - Threat that customers do not value eco-products enough in comparison to non eco-products - In some cases a non ecological perception of employees and a lack of ecological values in the business entities

on the public image of brands on the market	
NEEDS/ INTERVENTIONS NECESSITIES	
2.1 Support for the development of new ecological technologies in SMEs through technology procurement and aids at the national and regional level since eco-innovation is much less developed in SMEs than in larger enterprises in the region 2.2 Establishing additional services directed towards the integration of the vertical production chain 2.3 Exemption from local taxes when investing in eco-innovation projects 2.4 Establishing incentives targeted at shortening replacement/production cycles 2.5 Investigation of utility demand side management approaches to increase the use of eco-innovation products and services at the user's side 2.6 Creation of effective models and incentives of R&D and industry interconnection in order to reach a critical mass for the development break-through 2.7. Commercialisation of innovations	

Table 3 SWOT of the TERRITORIAL AND ENVIRONMENTAL SYSTEM

SWOT analysis of the territorial and environmental conditions of the territorial area and intervention needs indication.

SWOT TERRITORIAL AND ENVIRONMENTAL SYSTEM	
STRENGTHS	**WEAKNESSES**
- Quality unspoiled environment (54% of the territory of the region is part of the Natura 2000 protected area) - Favourable strategic geographical location in Central Europe, vicinity of the Mediterranean sea and vicinity of Europe's V and X transport corridors - Eco-development of Inner-Karst region set as one of the three most important development priorities in the region, and prepared quality strategy outlines linked to the ecology of the region – Green Karst - Relatively good natural conditions for solar energy use	- Environmental investments are below the national average (gross fixed capital formation for environmental protection by purpose in 2006 was only 0.9 % of the total) - Lack of business use (mostly in eco-tourism) of excellent natural potentials - Lack of business use of opportunities provided by the intensive transport that crosses the region
OPPORTUNITIES	**THREATS**
- Quality environment and excellent natural potential for eco-tourism and eco-farming, due to the intact nature and the use of several natural resources (woods, water, caves, landscape) - Potential for the use of support services and other benefits of the existing and planned new transport links with intensive transport - Finding synergies between environmental	- Pollution due to the further increase of transport crossing the region - Lack of a critical mass of opportunities in the region and drain of eco-innovation initiatives in the easily accessible neighbouring regions

technology networks in conjunction with the ECO region - Establishment of planned local energy agencies in the region - Development of renewable energy technologies, the solar energy potential is especially substantial	
NEEDS/ INTERVENTIONS NECESSITIES	
3.1 Promotion of development of renewable energy technologies, especially solar energy and wood biomass 3.2 Promotion of use of the natural potential in eco-tourism products with a high added value 3.3 Incentives for the establishment of services that can support the intense transport that crosses the region and incentives for the region to become a region to "stay or at least stop" rather than just "pass by" 3.4. Instalment of systems and procedures for preserving the region's biggest asset – the quality (mostly) unspoiled environment in accordance with the Green Karst strategic outlines	

Table.4 SWOT of the Innovation & Eco-innovation in local / regional context *and intervention needs indication.*

SWOT INNOVATION & ECO INNOVATION	
STRENGTHS	**WEAKNESSES**
- Strong awareness of the local authorities that eco-innovation in the region is necessary for further regional deployment - The capital city of Ljubljana as the university and research centre of Slovenia is logistically easily accessible for the entities from the region that need support in eco-innovation	- Inner-Karst as a whole has a very limited number of support institutions - Poor coordination of public administrative structures and other innovation support structures in the area of innovation, both on the national and regional level - Under-resourced financial support institutions with a lack of critical mass and the need to focus too much on their own survival - Instruments for the public financing of R&D on the regional level are not available or are very scarce, funds are distributed predominantly on the national or EU level - Lack of communication and promotion regarding innovation activities with the inhabitants of the region - The in-house innovation in the region is relatively poor; collaboration between regional SMEs and R&D institutions is on a low level

	- A very limited international cooperation is present in the R&D field
OPPORTUNITIES	**THREATS**
- Establishing adequate support infrastructure (technology parks, incubators, centres of excellence and business districts …) relative to the region's needs or the improvement and connection of the existing ones - Full realisation of the strategic national project "Perspektiva" planned in the region - Further successful realisation of eco-innovation related EU and national projects - Further promotion of innovation with various incentives like the existing Awards for innovation - Further integration and networking between the regional support infrastructure and the centres of knowledge on the national and international level	- Further concentration of knowledge in the capital Ljubljana - Faster growing competitiveness of other markets, countries, regions - Lack of finance and critical mass for new innovation projects
NEEDS/ INTERVENTIONS NECESSITIES	
4.1 Establishing a support infrastructure, which will be oriented towards research and technology transfer to local companies; the development of a support structure to support the wood and metal industry, renewable energy and waste management would be especially promising 4.2 Establishing a support infrastructure or incentives for the commercialization of new regional products and services locally, nationally and abroad 4.3 Endeavour to establish a small but effective regional investment fund, which would enable a seed capital for young start-up companies in the region, mainly oriented towards the development and implementation of eco-innovation projects 4.4. Linking regional support infrastructure centres of knowledge and services with other centres in Slovenia and internationally	

Table 5 SWOT of eco-innovation in the candidate sector or with reference to the selected eco-innovation technology and requirements/intervention modalities.
Analysis of strengths, weaknesses, opportunities and threats related to eco-innovation in the candidate sector or with reference to the selected eco-innovative technology/tool and intervention needs indication.

SWOT INNOVATION & ECO INNOVATION	
STRENGTHS	**WEAKNESSES**
- Relatively high ecological and other innovation potential and R&D activity in some sectors, especially in electronics and the electrical industry	- The introduction of new products and services in the region is weak - Lack of use of the "open innovation" model in the region among larger

- Relatively high eco-innovation presence in cleaner pollution control technologies, including wastewater treatment and cleaner process technologies - High consensus among business entities that ecology is important for the competitiveness of their organisation - High potential in the use of natural resources for eco-innovation – high level of stocking of forest conservation, water sources and rich landscape diversity (from the tourism perspective)	(knowledge intensive) enterprises and SMEs - Patents are rare, present mostly in the furniture and plastics industry and in the metal processing industry, predominantly by larger companies - The expenditures in ICT are weak compared to the more developed regions in Slovenia - The service sector is undersized (both eco and non eco-related)
OPPORTUNITIES	**THREATS**
- Potentials for the development of eco-innovation in services mostly related to the natural resources (farm or eco-holidays, adrenaline eco-tours, anti-stress and revival tourist programmes, linked with other personal services) - Potentials for the further development of services and eco-innovation related to the transport sector - highway and railway transport links - Potential for the stimulation of final customers to demand eco-products and eco-services - Potential for the development of new eco-products with a higher added value especially related to the cleaner pollution control technologies, including wastewater treatment and cleaner process technologies - Substantial interest among the business entities for eco-innovation and eco-technologies, especially in the area of pollution control technologies, including wastewater treatment	- Actual output of eco-innovations in terms of relation between costs : benefits of innovation - Prevailing cost criterion relative to the ecological aspect in purchase decisions of customers related to the financial crisis and global relations - Better possibilities for development of eco-innovation in other regions, countries
NEEDS/ INTERVENTIONS NECESSITIES	
5.1 Support to increase the uptake of the existing products and services, with their significant improvement by using eco-innovation 5.2 Establishment of support measures to support eco-innovation in some of the ecologically promising sectors like wood processing industry, renewable energy and waste processing 5.3 Establishing measures for the development of the tourism industry with an emphasis on the integration of equivalent natural values, cultural heritage and complementary tourist offers	

Part 5:
THE PARTICIPATIVE PROCESS IN THE TERRITORIAL CONTEXT

5. THE PARTICIPATIVE PROCESS IN THE TERRITORIAL CONTEXT

The local workshop on eco-innovation is set out to act as a catalyst of the dynamics which can really lead to a suitable development of an operational and strategic plan, supporting local eco-innovation and baiting politics and virtuous actions of development.
The concrete pursue of such finalities requires the identification of all those working subjects/stakeholders on the territory of reference entitled to give an exact contribution to the discussion as well as to the implementation and actuation.

5.1 LOCAL WORKSHOPS

5.1.1. LOCAL WORKSHOPS' ROLE

A series of meetings and workshops have been conducted with all key groups of stakeholders. The groups of stakeholders that were represented were:

- Public bodies – eco-innovation support organisations on the national level.
- Support organisations on the regional level.
- Selected enterprises

The representatives from public bodies on the national level shared information and their view on future trends, mechanisms and funds available for eco-innovation support. Representatives from support organisations on the regional level shared their views on the strategic priorities in the region in relation to eco-innovation; they also discussed their stance on the region and the perspectives of the regional support environment. Representatives from the selected enterprises expressed their needs in the area of eco-innovation and also shared their views regarding the strategic priorities in the region.

Within frame workshops and meetings with the public bodies a meeting was arranged with the **Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments - PAEFI (JAPTI)** with Igor Plestenjak and Irena Meterc. There it was emphasized that JAPTI supports the regions, particularly by providing adequate support to their economic development environments (incubators, technology parks, VEM points) and the provision of information via web portals (JAPTI web site, the portal I have an idea, innovation forum, etc.) and other forms of communication. Especially in Inner-Karst region, such support is very weak with the exception of VEM points. The business incubator Veliki otok is still not registered as an entity of an innovative environment. This should be checked as soon as possible and incorporated into the incubator project activities within MEDOSSIC. JAPTI has also informed the Regional Development Agency about some of JAPTI's support programmes. JAPTI stated that it does not support the establishment of a new support structure for eco-innovation, but rather the integration in the existing support environment.

The Slovenian Chamber of Commerce (GZS), as an important public body that deals with eco-innovation on the national level, was contacted and Ms Simona Rataj from the GZS was present at the meeting. Ms Rataj presented the role of the GZS as a representative of

economic subjects on the national level. The GZS also presented its role of organiser of regional awards for innovation (which is successfully conducted in Inner-Karst region). Ms Rataj raised the issue of ecological commitment, especially in the light of the current tough economic times. Compliance with environmental standards and the introduction of environmental technologies is expensive for European companies, especially because this presents an additional cost in comparison with the fierce competition from countries where these standards are not enforced. Therefore, the question is to what extent the EU requires the commitment of the companies, or should the European policy require such a commitment in the wider international arena.

In the frame workshops and meetings with the support organisations on the regional level two meetings with the **Regional Development Agency of Inner-Karst Region** took place. Ms Simčič and Ms Nadoh Bergoč commented on the proposed SWOT analysis, strategic priorities for the region and the sectors / technologies identified in the ESA. No particularly new strategic priorities for the region and the sectors / technologies identified in the Situation analysis were pointed out; however, the following were especially emphasized:

- The innovation culture should be activated through various forms of the education process, from households to enterprises,
- Endeavour to establish a small but effective regional investment fund, which would enable a seed capital for young start-up companies in the region, mainly oriented towards the development and implementation of eco-innovation projects
- Establishing measures for the development of tourism industry with an emphasis on the integration of equivalent natural values, cultural heritage and complementary tourist offers
- Promotion of the development of renewable energy technologies, especially solar energy and wood biomass
- Promotion of use of the natural potential in eco-tourism products with high added value
- Incentives for the establishment of the services that can support the intense transport that crosses the region and incentives for the region to become a region to “stay or at least stop” rather than just “pass by”
- Instalment of systems and procedures for preserving the region’s biggest asset – the quality (mostly) unspoiled environment in accordance with the Green Karst strategic outlines
- An outline for the operational plan has also been formed.

A meeting / workshop with the **Slovenian Chamber of Commerce (GZS), Regional Chamber Postojna** (with Mr. Blažina) and later with the Abies company (with Ms Lekše) was carried out. Mr. Blažina presented the views of the Regional Chamber Postojna on eco-innovation in the region and, together with Ms Lekše, the strategic priorities for the region and the sectors / technologies identified were also discussed.
The GZS is conducting very effective regional rewards for innovation (good results achieved on the national comparative scale). It is important to encourage innovators in the region to join the societies of innovators, and to offer them support in the protection of intellectual properties. The innovation should be more present in the educational process. In general, the encouragement for innovation in the region is poor; new support mechanisms should be

installed. The financial crisis has brought stagnation to the area of investments in R&D, and one of the problems is also the lack of support for innovation in management in the majority of companies.
The competitive position of the region is problematic in relation to Central Slovenia, where 46% of all Slovenian companies are located. A big challenge for the region is how to use the Green Karst brand and the ecological strategic direction. The production of ecological food and eco-products in relation to tourism are surely a challenge. Another opportunity is the use of the rich regional forest biomass for the production of energy and wooden products (wooden products are already produced extensively). It is important to systematically promote the value of real quality of the products (that the region can offer, especially in relation to ecology) and not the outside appearance.
The influence of companies in the region on the regional policy is very weak; one of the main reasons for this is the process of policy formation, where almost all the decision power is concentrated, indirectly or directly, on the regional authorities. The regional authorities, however, act predominantly from the stance of the four year election cycle and the priorities that are important for the voters. These are, however, not always equal to the long-term economical strategic needs of the companies.

At the meeting with the **Notranjska Ecological Centre (NEC),** director Ms Mahne gave an explanation on the projects that the NEC is conducting in the area of ecological and cultural heritage of the region. She emphasised that the innovation in the area of services and support activities is neglected. The NEC has conducted several very successful projects and helped in the creation of several small businesses in this area. Due to its rich natural and historical heritage the region has big potential in this area, especially in the light of absence of large industrial centres and critical mass in other sectors /technologies.

The following members of the regional **Council for Innovation,** Mr. Blažina (representative of the GZS), Mr. Kaluža (Kolektor Liv), Mr. Širca (Kolektor Liv), Ms Lipolt (Javor Pivka), Mr. Rot (Kovinoplastika Lož) and Mr. Velikajne (Ydria Motors) shared their views related to eco-innovation in the region. They expressed interest in acquiring a regular flow of information related to eco-innovation – support programme opportunities and related themes, they were also interested in the more centralised and systematic organisation of providing such information. The members noticed that the ecological stance is gaining its importance within companies as well as within market demands and regulatory obligations. They said that they see the ability and desire of companies in the creation of networks and more complex bonding structures as problematic.

The **coordinator of regional Council for Innovation,** Mr. Vinšek, shared his views on eco-innovation. According to his views, the innovation potential in the region is not fully used. It would be necessary to improve the innovation culture in the region, which is closely related to the promotion of innovation. In this respect it would be important to influence the media in order to cover this topic more thoroughly. The innovators need more practical support in commercialisation, acquiring funds for financing their inventions, bonding with the commercial and business entities and investors, as well as support in the procedures for the protection of intellectual property. The Management in the companies is too often not interested in innovation: therefore, it would be necessary to offer them the management tools and knowledge to manage the innovation process. The R&D

personnel in companies would also need some sector-related tools and knowledge for support in the innovation process. The regional support environment in the region should help in the organisation of such support. An important issue that has not been addressed adequately are the innovations in the public sector there is a lot of unused potential in the region as well as on the national scale.

In the frame of the **3rd Development conference – Eco-innovations for sustainable development** a round table with the title "Experiences and needs of the enterprises in promotion of eco-innovation was organised". Participants Mr. Miran Mišič (Kovinoplastika Lož), Mr. Andrej Kobal (Kolektor Liv), Mr. Robert Tornič (Javor Pivka), Mr. Damjan Krt (Plama-Pur) and Ms Violeta Bulc (Vibacom) shared their views on the subject. They emphasized the importance of supporting the management of the enterprises for the promotion of eco-innovation. The discussion among the participants was followed by the round table general discussion, which was open also for the participants of the conference. The purpose of such discussion was to obtain an assessment on the state of eco-innovation in Inner-Karst region and the expectations of a supportive environment in the region and the country.

Ms Mikuljan from the biggest wood processing company in the region, **Brest d.d.,** presented her views of their company on eco-innovation in the region. The wood processing branch has problems with ensuring an adequate staff of educated personnel with technological knowledge and the right innovation and ecological attitude. Brest is also interested in the perspectives of using the the region's wood biomass as well as in recycling wooden products; this might be an interesting sectoral opportunity for the region.

Dr. Hočevar from the **Pantea** company, which deals with modern education and training methods, emphasized the importance of promotion of innovative culture in the region, along with an explicit definition of what is ecological and what is not. She also stated that the strategic directions in the area of innovation and ecology (that are surely very important) and the unused potential should be widely communicated to the population in order to achieve the coordinated shift in the desired direction.

The stakeholder present expressed their views that are, as expected, very much dependent on the position of the individual stakeholder. Nevertheless, according to the gathered inputs from the stakeholders, we can conclude the following:
- The general strategic outlines incorporated in the Existing Situation Analysis study have been confirmed.
- Most of the sectors / technologies stated in the Existing Situation Analysis study have been confirmed, however, some new ones have been identified as well, and more in the form of possible future opportunities (like innovation in services and innovation in the public sector).

5.1.2 WORKSHOPS' STEPS AND WORKING MODALITIES-METHODOLOGY

The meetings / workshops were conducted with the following organisations

Public bodies – eco-innovation support organisations on the national level

I.I.

- Organisation: Public Agency of the Republic of Slovenia for Entrepreneurship and Foreign Investments – JAPTI.
- Participants: Mr. Igor Plestenjak (JAPTI), Ms Irena Meterc (JAPTI), Ms Mateja Simčič (RDA Inner-Karst), Ms Jana Nadoh Bergoč (RDA Inner-Karst), Ms Tina Jančar Matekovič (RRC Koper), Mr. Simon Jeraj (RC Novo mesto).
- Date: 30 March 2010.
- Details: The meeting was organised as a meeting of representatives of the three regional development agencies involved in the MEDOSSIC project and JAPTI. The strategic and operational issues regarding the MEDOSSIC project and eco-innovation were discussed.

I.II.

- Organisation: Slovenian Chamber of Commerce – GZS.
- Participants: Ms Simona Rataj (GZS), Ms Tina Jančar Matekovič (RRC Koper), Mr. Simon Jeraj (RC Novo mesto)
- Date: 11 May 2010
- Details: The meeting was organised as a meeting of representatives of the two regional development agencies involved in the MEDOSSIC project and GZS. The strategic and operational issues regarding the MEDOSSIC project and eco-innovation were discussed.

Support organisations on the regional level

II.I.

- Organisation: Regional Development Agency of Inner-Karst Region – (RDA Inner-Karst)
- Participants: Ms Mateja Simčič (RDA Inner-Karst), Ms Jana Nadoh Bergoč (RDA Inner-Karst), Ms Špela Stres (Institute Jožef Stefan"), Mr. Primož Kunaver (Institute Jožef Stefan")
- Date: meeting and workshop; 17 June 2010 and 14 July 2010
- Details: The meeting and the workshop were moderated by Mr. Kunaver. At the meeting, the SWOT analysis was confirmed and priorities were set. At the workshop, brainstorming related to the strategic priorities and the outline for the operational plan was conducted. The workshop was moderated. The importance of eco-innovation on the regional level was emphasized and operational outlines, related to the creation of counselling support for eco-innovation, networking and dissemination of good practices, were identified.

II.II.

- Organisation: Slovenian Chamber of Commerce (GZS), Regional Chamber Postojna. Participants: Mr. Dušan Blažina (GZS), Mr. Primož Kunaver (Institute Jožef Stefan"), part of the time: Ms Jelka Lekše (Abies).
- Date: 30 June 2010

- Details: The meeting was moderated by Mr. Kunaver. The aim of the meeting was to acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. The participation of the public organisation and the representative of a private company proved to be fruitful. A number of conclusions regarding the mentioned topics were made.

II.III.

- Organisation: Notranjska Ecological Center (NEC).
- Participants: Ms Lili Mahne (NEC), Mr. Primož Kunaver (Institute Jožef Stefan")
- Date: 5 July 2010
- Details: The meeting was moderated by Mr. Kunaver. The aim of the meeting was to acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. Ms Mahne presented the projects of the NEC and opened a relatively new area of investigation in the frame of MEDOSSIC, namely the innovation in the cultural and ecological heritage of the region.

II.IV.

- Organisation: Council for Innovation.
- Participants: Mr. Igor Blažina (GZS), Mr. Stanislav Kaluža (Kolektor Liv), Mr. Milan Širca (Kolektor Liv), Doriana Lipolt (Javor Pivka), Anton Rot (Kovinoplastika Lož), Matjaž Velikajne (Ydria Motors)
- Date: 13 January 2010
- Details: The aim of the meeting was to present the MEDOSSIC project, acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. The members of the Council shared their views on the problems and the needs that innovators face in the region.

II.V.

- Organisation: Council for Innovation.
- Participants: Mr. Vladimir Vinšek (Council for Innovation), Ms Jana Nadoh Bergoč (RDA Inner-Karst), Špela Stres (Institute Jožef Stefan"), Primož Kunaver (Institute Jožef Stefan")
- Date: 14 July 2010
- Details: The meeting was moderated by Mr. Kunaver. The aim of the meeting was to acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. Ms Vinšek systematically presented the challenges in the area of innovation in the region, according to key stakeholder groups.

II.VI.

- Organisation: 3rd Development Conference – Eco innovations for sustainable development (organised by the Slovenian Chamber of Commerce (GZS), the Regional Chamber Postojna and the Regional Development Agency of Inner-Karst Region) – round table: "Experiences and needs of the enterprises in the promotion of eco-innovation"
- Participants: Mr. Miran Mišič (Kovinoplastika Lož), Mr. Andrej Kobal (Kolektor Liv), Mr. Robert Tornič (Javor Pivka), Mr. Damjan Krt (Plama-Pur), Ms. Violeta Bulc (Vibacom)
- Date: 22 June 2010

- Details: The round table was moderated by Ms. Violeta Bulc (Vibacom d.o.o.). The purpose of the round table was to present concrete experiences of innovators (mainly last-year winners in innovation at the regional and national level) in the eco-innovation process and in doing so, highlight the key dilemmas that arise with this: the attention was focused on the comparison of experience of particular organisations. The process of eco-innovation in each project as well as the organizational environment, which serve as a stimulus (or barrier), were especially analysed.

Selected enterprises

III.I.

- Organisation: Brest Cerknica d.d.
- Participants: Marica Mikuljan (Brest d.d.), Ms. Jana Nadoh Bergoč (RDA Inner-Karst), Primož Kunaver (Institute Jožef Stefan")
- Date: 12 July 2010
- Details: The meeting was moderated by Mr. Kunaver. The aim of the meeting was to acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. Among other topics, Ms. Mikuljan presented her views and plans regarding Brest and the regional wood processing sector in the area of eco-innovation.

III.II.

- Organisation: Pantea
- Participants: Nina Hočevar (Pantea) Špela Stres (Institute Jožef Stefan"), Primož Kunaver (Institute Jožef Stefan")
- Date: 14 July 2010
- Details: The meeting was moderated by Mr. Kunaver. The aim of the meeting was to acquire views regarding the strategic priorities in the region as well as views about other topics related to eco-innovation in the region. Dr. Hočevar presented her views on eco-innovation in the region from a broader perspective – innovation culture, definition of "eco" and dissemination of the strategy in the ecological area.

The minutes of the workshops, copies of the lists of the participants and further documentation predisposed to support the participative process, as well as the slides of the presentation, are enclosed in the Annex.

5.1.3 POSSIBLE DIFFICULTIES ENCOUNTERED DURING THE PARTICIPATIVE PROCESS

All aims related to acquiring the needed content for the conclusions were achieved. However, during the process of acquiring these inputs and organising the meetings and workshops we encountered a few obstacles, namely:

1. Lack of understanding of the project aims from the side of stakeholders. The aims of the project and the needed input was explained to the stakeholders at the meetings and workshops, but in most cases they only expressed their narrow view (relative to the role of the organisation) on the topics; in most cases they did not comment the topics that did not directly tackle their role. However, we dealt with this obstacle by contacting a broader circle of stakeholders in order to be able to acquire all necessary inputs.
2. The majority of meetings and workshops were organised in July when several representatives planned vacations. Therefore, a lot of rescheduling had to be done, and one joint workshop had be broken up into several partial meetings.
3. Inner-Karst region lacks support from environment organisations; furthermore, the concentration of R&D active enterprises is weaker than in some more developed regions in Slovenia. Therefore, it was not a surprise that we were able to choose only from a relatively scarce number of competent stakeholders.

5.2 INSTITUTIONAL CONTEST

5.2.1. THE FRAMEWORK OF THE MAIN ISTITUTIONAL STAKEHOLDERS AND THE MAIN TOOLS FOR ECO-INNOVATION

The Matrix 1 is revised and integrated/implemented whenever necessary and in relation to what emerged during the workshops and local meetings with the stakeholders.

MATRIX 1 - MATRIX OF EXISTING STAKEHOLDERS & TOOLS TO SUPPORT ECO-INNOVATION

Body/subject	Operational level	Typology of support	Support tool			Impact on eco-innovation in local context	Involvement in SOP definition ?
			Title	*Short description*	*Reference to the project's document*		
	Specify if: *- European level* *- National level* *- Regional level* *- Local level*	*Specify if:* *- Political* *- Financial* *- Service* *- Others (specify)*	*Law / proclamation / service / good practice / other*		*Example ref. Report ESA - Report BP) for further detail*	*Specify direct or indirect impact*	*(yes / not)* *IF YES, please specify the kind of involvement, for example (telephone contact, participation to meetings, etc.)*
Ministrstvo za visoko šostvo, znanost in tehnologijo – Ministry for Higher Education, Science and Technology (MHEST)	National level	- Political - Financial	-Set of laws related to R&D -Set of programmes related to R&D	The MHEST is the central national body in the field of R&D	Research and Development Act - (ZRRD) Ur.l. RS, št. 96/2002 Resolution on the 2006 – 2010 National Research and Development programme- Resolucija o Nacionalnem raziskovalnem in razvojnem programu za obdobje 2006 - 2010 /ReNRRP/Ur.l. RS, št. 3/2006 Rules on Keeping the Register of Innovative Environment - Pravilnik o vodenju evidence subjektov inovativnega okolja Ur.l. RS, št. 25/2008 Industrial Property Act - Zakon o industrijski lastnini (ZIL-1) Ur.l. RS, št. 45/2001 Employment Related Industrial Property Rights Act - Zakon o pravicah industrijske lastnine iz delovnega razmerja	Indirect influence	not

Body/subject	Operational level	Typology of support	Support tool			Impact on eco-innovation in local context	Involvement in SOP definition ?
			Title	*Short description*	*Reference to the project's document*		
					(ZPILDR) Ur.l. RS, št. 45/1995		
Ministrstvo za okolje in prostor – Ministry of the Environment and Spatial Planning (MESP)	National level	- Political - Financial	-Set of laws related to the environment -Set of programmes related to the environment	The MESP is the central national body in the field of environment	- Act Declaring the Ecological Protection Zone and Continental Shelf of the Republic of Slovenia - Zakon o razglasitvi zaščitne ekološke cone in epikontinentalnem pasu Republike Slovenije (ZRZECEP) Ur.l. RS, št. 93/2005 The Environment Protection Act - Zakon o varstvu okolja (ZVO-1) Ur.l. RS, št. 41/2004 Protection against Noise in the Natural and Living Environment Act - Zakon o varstvu pred hrupom v naravnem in bivalnem okolju (ZVPH) Ur.l. SRS, št. 15/1976 Ionising Radiation Protection and Nuclear Safety Act - Zakon o varstvu pred ionizirajočimi sevanji in jedrski varnosti (ZVISJV) Ur.l. RS, št. 67/2002 Water Act - Zakon o vodah (ZV-1) National efficiency energy action plan for the period 2008-2016 - Nacionalni akcijski načrt za energetsko učinkovitost za obdobje 2008-2016	Indirect influence	not
Ministrstvo za gospodarstvo – Ministry of the Economy	National level	- Political - Financial	-Set of laws related to competitiveness -Set of programmes related to competitiveness	The Ministry of the Economy is the central national body in the field of competitiveness	- Companies Act - Zakon o gospodarskih družbah (ZGD-1) Ur.l. RS, št. 42/2006 (60/2006 popr.) Public Funds Act	Indirect influence	not

Body/subject	Operational level	Typology of support	Support tool			Impact on eco-innovation in local context	Involvement in SOP definition ?
			Title	*Short description*	*Reference to the project's document*		
					Pubic Funds Act - Zakon o javnih skladih (ZJS-1) Ur.l. RS, št. 77/2008 Restructuring Economies Act with the Merits of Funding - Zakon o kriterijih za usmerjanje sredstev za prestrukturiranje gospodarstva Ur.l. SRS, št. 5/1990 Venture Capital Companies Act - Zakon o družbah tveganega kapitala (ZDTK) Ur.l. RS, št. 92/2007 Award for Business Excellence Act - Zakon o priznanju Republike Slovenije za poslovno odličnost (ZPPO) Ur.l. RS, št. 22/1998 Promotion of Foreign Direct Investment and Internationalisation of Enterprises Act - Zakon o spodbujanju tujih neposrednih investicij in internacionalizacije podjetij (ZSTNIIP) Ur.l. RS, št. 86/2004 Promotion of Balanced Regional Development Act – Zakon o spodbujanju skladnega regionalnega razvoja		
Javna agencija RS za podjetništvo in tuje investicije – Public Agency for Entrepreneurship and Foreign Investment (PAEFI - JAPTI)	National level	- Financial	- Implementation of programmes in the area or innovation support	The PAEFI - JAPTI is the central national body in the area of implementation of support to innovation programmes		Indirect influence	Yes (meeting)
Tehnološka agencija Slovenije –	National level	- Financial	- Implementation of programmes in the	The STA - TIA is the central national body		Indirect influence	not

Body/subject	Operational level	Typology of support	Support tool			Impact on eco-innovation in local context	Involvement in SOP definition ?
			Title	*Short description*	*Reference to the project's document*		
Slovenian Technology Agency (STA - TIA).			area of R&D and innovation	in the area of implementation of R&D and innovation support programmes			
Regional Development Agency of Inner-Karst Region – (RDA Inner-Karst)	Regional level	- Service	- Regional strategic plans - Operational support in the area of regional development	The RDA of Inner-Karst is the central regional body that deals with regional development (prepares strategy studies and implements a part of the operational support)	- Regionalni razvojni program Notranjsko - kraške regije 2007 – 2013, RRA Notranjsko - kraške regije, 2006 - Izvedbeni nacrt regionalnega razvojnega ,programa Notranjsko-kraške regije, 2010 – 2012, Regionalna razvojna agencija Notranjsko-kraške regije d.o.o., 2009 - Strateški načrt zelenega krasa, Regionalna razvojna agencija Notranjsko-kraške regije d.o.o., 2009	Influence on regional strategy	Yes (project coordinator)
Organisation: Slovenian Chamber of Commerce (GZS), Regional Chamber Postojna	Regional level	- Service	- Intermediately role between regional enterprises and regional political structures - Operational support to regional enterprises - Support in the organisation of regional contests in innovation	- The Regional Chamber of Commerce is a representative of enterprises, among several services it also coordinates successful regional contests in innovation		Direct influence on innovation	Yes (organisation, meetings)
Notranjska Ecological Center (NEC).	Regional level	- Service	- Operational support in area of cultural and ecological heritage - conducting of VEM (one stop points) for entrepreneurs	- The NEC effectively conducts EU projects in the area of cultural and ecological heritage; it also manages some operational support		Direct influence on innovation in the area of cultural and	Yes (meeting)

Body/subject	Operational level	Typology of support	Support tool			Impact on eco-innovation in local context	Involvement in SOP definition ?
			Title	*Short description*	*Reference to the project's document*		
				for entrepreneurs like VEM points		ecological heritage	
Council for Innovation.	Regional level	- Service	- Coordination of regional activities in the area of innovation - Support in the organisation of regional contests in innovation	- The Council coordinates a few regional activities in the area of innovation and also implements tasks in the frame of regional contests in innovation		Direct influence on innovation	Yes (organisation, meetings)
Regional Craft and Entrepreneurial Chambers Cerknica, Ilirska Bistrica, Postojna	Local level	- Service	Local operational support to entrepreneurs	Various operational support tasks to entrepreneurs		Indirect	No
Business Incubator within the Business Zone of Veliki Otok (not active)	Local level	- Service	The Business Incubator is still in the phase of formation	-	-	-	-

5.3 A GENERAL COMMENT ON THE EXISTING INSTITUTIONAL CONTEXT

5.3.1 THE MAIN STAKEHOLDERS AND TOOLS FOR INNOVATION AND ECO-INNOVATION.

The main stakeholders that influence eco-innovation in Inner-Karst region are:

National level:

Ministrstvo za visoko šolstvo in znanost – The **Ministry for Higher Education, Science and Technology (MHEST)** defines policies and performs tasks in the areas of higher education, research, technology, metrology, and promotes the information society in areas that do not fall within the responsibilities of other ministries. It also co-ordinates state directed activities in the area of information society.
Its influence on the regional eco-innovation is indirect in the form of formulation of legislation and installation of relevant support programmes in the area of research and development.

Ministrstvo za okolje in prostor – The **Ministry of the Environment and Spatial Planning (MESP)** defines policies and performs tasks in the areas of ensuring a healthy environment for all the inhabitants of Slovenia, encouraging and coordinating efforts aimed at sustainable development grounded in social well-being, and based on the prudent use of natural resources.
Its influence on the regional eco-innovation is indirect in the form of formulation of legislation and installation of relevant support programmes in the area of ecology.

Ministrstvo za gospodarstvo – The **Ministry of the Economy** defines policies and performs tasks in the areas of internal market, enterprise and competition, foreign economic relations, tourism, energy and electronic communications.
Its influence on the regional eco-innovation is indirect in the form of formulation of legislation and installation of relevant support programmes in the area of competitiveness and innovation.

Javna agencija RS za podjetništvo in tuje investicije – The **Public Agency for Entrepreneurship and Foreign Investment (PAEFI)** looks after the implementation of the development policy designed to cater to the development of entrepreneurship and competitiveness in Slovenia on one hand, and to run programmes aimed at attracting foreign direct investments and company internationalisation on the other.
The influence of the PAEFI - JAPTI on the regional eco-innovation is indirect in the form of implementation of support programmes for innovation.

Tehnološka agencija Slovenije – The **Slovenian Technology Agency (STA)** is an independent public agency responsible for the enhancement of technology development and innovation in the Republic of Slovenia. Its main activities are granting programs aimed at technology development and fostering the cooperation of R&D institutions and universities with the industry. An important part of STA's activities are international

projects. Through cooperation with partners abroad, the agency strives to develop new policies in technology development and services in the Slovenian industry.
The influence of the PAEFI - JAPTI on the regional eco-innovation is indirect in the form of implementation of support programmes for research and development as well as innovation.

Regional level:

The **Regional Development Agency of Inner-Karst Region** performs the following undertakings:

- services in the area of designing and performing projects and the regional structure policy;
- enhancement of local and regional development in the area of economy, social matters, spatial planning and environment;
- consultancy and enrichment of small economy development;
- coordination of the Scholarship scheme for Inner-Karst region;
- guidance on innovation and technological development;
- designing, coordinating and assessing the execution of regional development programmes;
- training and education;
- other activities directed to region development.

The RDA Inner-Karst is a central regional body that deals with regional development. It prepares strategy studies and implements a part of the operational support for regional development and also participates in several national and EU projects.

The **Regional Chamber of Commerce in Postojna** is generally oriented towards providing support activities to companies acting in different business environments. Among other things, they offer:

- data and information on the economic situation: statistics, population, labour market, economic sectors, foreign trade, production;
- legal and contractual information that govern domestic and international activities in Slovenia;
- information on fairs in Slovenia;
- useful addresses in Slovenia;
- credit report information on Slovenian companies;
- seeking out and selecting potential customers and suppliers for effective matchmaking.

In the field of innovation - through their knowledge of the Slovenian R&D policy – they actively provide support to the technological platforms and 'innovative clusters' on the national level. They have a comprehensive insight into the R&D sector in Slovenia - from institutions to enterprises. The Regional Chamber of Commerce also coordinates successful regional contests in innovation.

The **Notranjska organic Centre (NEC)** is a non-governmental and non-profit private institution established in 1995. It acts as a competence centre for business, education, sustainable development and rural development.
The main activities of the NEC are:

- Business and management consultancy and training
- VEM (one stop) points in the area of Inner-Karst regions
- Development and management of projects in the field of sustainable development,
- Motivation and training programmes for the young and the unemployed
- Development of rural areas and active work in the Programme Leader
- Education for the effective management of areas rich in natural and cultural heritage

The influence of the NEC on eco-innovation is in the area of development of innovation in the region's cultural and ecological heritage.

The **Council for Innovation** was constituted in the frame of the regional Chamber of Commerce. It coordinates regional activities in the area of innovation. Its main implementing function is the support in the organisation of regional contests in innovation. The members of the Council are Vinšek Vladimir, Lipolt Doriana - Javor d.d., Rot Anton - Kovinoplastika Lož d.d., Širca Milan - Kolektor Liv d.o.o. and Velikajne Matjaž - Ydria Motors d.o.o.

Local level:

The **Regional Craft and Entrepreneurial Chambers Cerknica, Ilirska Bistrica, Postojna** support their members who are seeking for support to develop their business idea. They associate (on the basis of the Law of Craft) craftsmen and other small businesses in a local environment. They are obliged to manage several important tasks:

- Representing craftsmen before the state/local authorities and defending their business interests,
- Giving information to craftsmen,
- Offering services to craftsmen,
- Realisation of different public authorisations (issuing craft permits, keeping the craft register and the register of craft masters)

The main activities of the Chambers are thus: consulting, training and education, coordination, designing and supervising projects, information, ensuring and coordinating financial resources – financial engineering. They collaborate in different development projects.

The **Business Incubator within the Business Zone of Veliki Otok** is still in the phase of formation. When it is fully operational, it will represent – with the concentration of innovation active enterprises and educational and promotional activities – an important base for innovation in the region.

5.3.2 DIFFICULTIES AND PROBLEMS ENCOUNTERED WITH REFERENCE TO STAKEHOLDERS AND TOOLS FOR ECO-INNOVATION

In general, according to the contacts and work done in the frame of the MEDOSSIC project, we can state the following:

The stakeholders that are present in the region are very serious about their intentions and they act as much as they are able in terms of resources and other means possible. A very good example of a tool that has had – with a very low investment – a very big multiplication of effect is the contest in the area of innovation that is conducted in the frame of the regional Chamber of Commerce and the Council for Innovation.
However, generally speaking, Inner-Karst is the second least economically developed region in Slovenia with a scarce economic background in forms of business entities; in addition, the support environment is very limited in its numbers and resources. Therefore, the stakeholders in the region only have a limited ability for action.

The geographical location of the region is between the two most developed Slovenian regions – Central Slovenia and Coastal-Karst region. The transport connections are generally good, the transport time from regional centres to the capital ranges between half an hour and three quarters of an hour. That means that the region could use the entire (relatively extensive) support infrastructure in Central Slovenia and on the coast to a a much greater extent; however, this use is still very limited. Even the cooperation between the two distinctive parts of the region, namely the "Notranjska" and the "Karst" part is often weak. These minor differences and small distances have to be overcome. The effort of improving networking and cooperation could lead to significant results with a very small investment. However, examples such as the above mentioned contest in the area of innovation show that the support activity has to be performed on the regional and local level as well, while the knowledge and resources could be "imported".

5.3.3 ACTORS AND TOOLS FOR THE NEXT FUTURE

We expect the Business Incubator within the **Business Zone of Veliki Otok** to become fully operational soon. This will result in the concentration of innovation active enterprises and educational and promotional activities that will contribute a great deal to the eco-innovation capacity in the region.

The formation of the **Centre of Excellence for Renewable Energy and Environmental Protection** is planned**.** The purpose of the Centre for Renewable Energy and Environment is to facilitate the development of new technologies in renewable energy, particularly in the field of wood biomass. As a consequence, there would be a rise in competitiveness of the economy and the living standards of people in the region, which would also contribute to a balanced regional development and ultimately to the goals of the Kyoto Protocol. The Centre for Renewable Energy and Environment is established, but due to various delays and the lack of funding it is not yet operational.

In the vicinity of Pivka, an **Inovacijski center - Innovation Centre** should be located in the near future. This would represent a community of highly innovative and scientifically skilled individuals that would move there with their families and work creatively in the natural environment. The Innovation Centre would also represent an eco-innovation dissemination centre in the region. In more details, the Innovation Centre (IC) is a modern

creative centre, where scientific research is closely linked to the creative process in the sense of a quest for novel solutions to real life problems. Scientific research should include human sensitivity for our environment and the society as a whole, and should embrace the responsibility for a positive contribution to the development of science and technology. In this sense, the transdisciplinary scientific method has been affirmed around the globe as a great motivation. In recent times, it is the most successful way of solving major problems in this crucial time for our society.

The IC will also serve as a place where science, art and spirit of nature will meet. It is designed for open communication and creativity, orientated both to material and spiritual innovations. It will be a meeting point for motivated and knowledgeable people and ideas from all over the world. The financial and material aspect of this plan is based mostly on ecological innovations.

Research activities will be oriented towards ethically unquestionable new technologies (especially in the realm of ecology), and towards related problems of modern society. We are motivated by a clear vision of new technological solutions, which we believe can help solve many local and global problems (problems of ecology, of unfair use of natural resources, greed for material expansion, etc.).

The IC is aware of how important it is to implement the high level of basic research into final products. In modern globalized circumstances, only products with a high input of skill and knowledge can prosper on the market. The IC goal is to develop such products up to the phase of prototypes and to support their industrialization. We give advantage to products with a structure that exhibits a new functional simplicity (trend “simple and logic”), which consume the smallest possible amount of materials and are recognised as something unique in the world. All projects listed below are of this kind. The high added value will allow us to finance the further development.

The aim of the the IC is to develop and to market the knowledge acquired through applicative research in the areas where we feel self-assured, scientifically skilled and experienced, with references to the past years, and where we find commercial interest. In parallel to these applied activities, we will also do basic science research, aimed towards the areas where we expect new technologies and new innovations to emerge, or towards areas where research will help us to develop or understand other practical phenomena.

Part 6.
STRATEGIC LINES

Chapter 6 – Strategic lines – was prepared entirely by the Inovacijski center.

6. STRATEGIC LINES

6.0 INTRODUCTION TO ECO-INNOVATIONS

Successful strategies for strengthening any specific field of activities or content have to take into account the basic logic and philosophy of that specific field. **When planning the strategy for development and use of innovations, a special care is needed not to oversee the initial motivation and concepts that are the basic elements of any innovation related activities.** Innovation related issues are not just some of the many inventions of a modern western society, limited to the economy, business and intellectual property. They are far more important, because they represent one of the crucial steps in the paradigm shift of the society as a whole.

At the same time ecology also has to be considered carefully since it is necessary to describe it in a broader system, not just in some fragmented situations. **Each activity influences the outer ecosystem and the overall effect should be taken into account when analysing the ecological impact of each specific activity, such as the introduction of a new product or service.**

Besides the strategy, goals also have to be defined in such a way to reflect the basic elements of a specific subject. **If the strategy and the goals are defined compatibly to the natural flow of a specific subject they can result as planned.**

When focusing on eco-innovation it is important to emphasize the importance of the basic elements of both ecology and innovation. A good strategy can significantly strengthen the efforts for improving the situation. But first, all basic elements have to be understood. A deeper insight into the origin of innovation is important for the understanding of the innovation strategy. “Strengthening eco-innovation”, written by Andrej Detela, gives us an important deeper insight into the origin of innovation.

6.0.1 THE QUESTION OF LANGUAGE

It was in the time of the Industrial Revolution (about two hundred years ago) when the economy was enthroned to become the cardinal social power. It was then when the economy was established as the central and most important regulator in the dynamic web of human society. Something like this had never happened before in the long history of global civilization; and even in the last two centuries the new social paradigm (with the leading role of economy) was limited only to a small part of the so-called Western World.

It is only during the last decades (from about 1975 onwards, but especially after 1989, in the so-called “age of globalization”), that the language of economy is assumed to be the prevailing regulative language in a modern global society. This is quite a short time in comparison to the history of our civilization.

Our modern time is turbulent and unstable, so it cannot be a measure for longer periods. An analysis of the present-day crisis (financial, economic, social crisis) indicates

that any general validity of the present economic paradigm is at least questionable (for instance, also without scientific basis); it is no more than a superficial myth, supported by actual centres of social power and widely spread by uncritical media of mass culture.

Globalization has positive and negative aspects. Economic globalization has a tendency to multiply a successful new item (a product, a book, an idea, etc.) in large quantity, and to spread it everywhere, in every country, irrespective of the previous milieu. Such a process does not enrich the world but makes it more flattened. In contrast, there are also positive aspects of globalization, for instance fruitful interchanging of different ideas. But this kind of process is (at least primarily) not supported by economy; it is more the expression of modern civil society. To summarise, the present day problems cannot be dealt in the flattened language of economy.

All this is even more evident in the area of ecology. No human society in the past had produced such a huge ecological instability as our modern society, inspired and propelled by the prevailing economic paradigm.

The thesis is that the **actual problems of ecology cannot be expressed merely in the language of economy; and the same holds for the expression of solutions to these problems.**

It is not needed to invent a new language in which ideas are expressed; **it is only needed to restore epistemological languages that have been marginalized during the last decades. However, they are constantly in development (but hidden in other areas of human creativity, for instance in basic science, in different forms of art, etc.) and so they are capable to express new ideas and solutions to questions of our present time.** It is just the fact that these languages transcend the language of economic machinery that gives them their full creative power. They are indispensable when the nakedness of our world is observed from a wider (and therefore, more sober) perspective.

After all, the origin of both words *ecology* and *economy* is the Greek word *oikos* (=house), from this also *oikomen* (= universal space, the wholeness of the world). This implies much less superficial meaning. For instance, the philosopher J. Derrida derives an interesting conclusion that the economy of language is preceding the language of economy: the latter can exist only after the former.

The function of this introduction is, therefore and among other aims, an apology of the language that is used in the following text.

6.0.2 OPENING IDEAS

When speaking about innovations, it cannot be dismissed that each innovation is preceded by the respective invention. Namely, invention is defined as the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out into practice. So it is understood that the term eco-innovation comprises also the subtle process of invention.

In the realm of ecology, and so more specifically in the realm of eco-innovation, any creative activity should keep a sound balance between top-down approach and bottom-up approach. With special regard to the topic these two terms can be determined like this:

(A) *Bottom-up approach* is observing and following natural phenomena and the dynamics of complex natural systems (including systems of living beings); this approach is observing (predominantly from the viewpoint of the innermost human experience) the human role

within these systems (including our human psychological response to different phases within complex dynamics); and finally, looking for such solutions to our human existence that do not disrupt the established natural processes (or, if they disrupt some of them, they do provide a better replacement).

Therefore, a widespread observation is very important; otherwise the appropriate solutions could not be found. Human sensitivity is also very important; otherwise the threshold, beyond which the sound balance is endangered, is not perceived. Sincerity is important as well; otherwise, as soon as selfish interests begin to play a significant role one is prone to lying.

Actions are justified only after a thorough understanding of reality. This can be called profound respect for the web of life. Or, expressed more poetically, the teachings of our Mother Earth that is getting increasingly tired of excessive human activity needs to be obeyed.

(B) *Top-down approach* is making good use of a wide variety of organizational and technical achievements developed in our modern human society. Here, rational thinking, technical equipment, planning, networking, and especially a vast treasury of human knowledge are used. During the last centuries and especially in the last one hundred years, these human potentials have grown to be immensely powerful. In case they were supported by the old social paradigm of Man's superiority over Nature, they would be extremely dangerous – as history is giving us full evidence. Therefore one should be very careful how to use these powerful potentials.

The history of science and technology is showing that the above-mentioned creative potentials of the top-down direction, developed for the most part quite recently (that is, from the Renaissance era onwards), proved to be overwhelmingly prosperous in the realms of economy. Human race has profited a lot in this process: Today, our lives are much easier and more comfortable than only 100 years back anyone could imagine.

But now these potentials have grown so strong that human creativity is threatened to lose touch with reality. This new-born danger cannot be overemphasized. Man is stubbornly persisting to have full control of the world from the standpoint of power, although the immense knowledge that has been collected so far is increasingly giving warnings that no such an entity like absolute superiority exists in the world of complex living systems. The part cannot be isolated from the whole. In brief, **humankind is found on a new ground, thus it is forced to invent creative methods that have not yet been proceeded before.**

In the prevailing culture of modern times, many people are inclined to reduce the human creativity merely to an arid operational, technical level. This is a fatal mistake, because in this way a holistic insight into the primordial nature (Greek *arhé*) is deprived. In the end, scientific research is deprived just as well.

The area of ecology is governed by strict natural laws from which there is no escape. The poetical (but thoroughly supported by science) formulation that our Mother Earth is getting increasingly tired of the excessive human activity that can be alleviated only by a profound respect for the entire web of life – this is the bottom-up approach. **The bottom-up approach and the top-down approach can be put into practice only hand in hand.**

Here, the new approaches are introduced into dealing with ecology. In modern research and technological development, the top-down approach is usually overemphasized; hence

the sound balance in the view of reality is lost. But the bottom-up approach, in the meaning as it is defined in this text, can be understood and followed only through a profound fusion of poetic and rational way of thinking (accordingly to recent findings, rational thinking cannot deal with more than approximately 10 elements).

Further on, some of these opening ideas will be repeated in a slightly different language, just in order to bring the poetic view of reality (predominantly bottom-up approach), and another, more rational way to bringing solutions (predominantly top-down approach) closer together. The poetic view is not a dreamlike state of mind; it is very real.

It is the contact with all living beings that makes our life so precious. These beings are interconnected like colourful threads woven into a wonderful carpet; if you pull one out, you destroy the entire pattern, the entire carpet. So the world is one huge family, in which we learn to cultivate loving kindness towards all beings in the world – including those different from our expectations. Simultaneously we observe an open land of possibilities in our creative process – again including those different from our usual assumptions. Isn't it the openness to the unknown that is showing a fresh way out of the present-day crisis?

Of course, we don't need to reject the achievements of the previous centuries, but they alone don't suffice. If we illuminate them with the insight of wisdom, it is soon revealed that we, human beings, have actual need of very few of the innumerable new possibilities at our disposal. The rest are only a seduction and a burden. Wisdom demands a contact with Earth, which is trying us constantly and inexorably.

We must not deceive ourselves with the attractive illusion that modern technology, which today's world so blindly trusts, has delivered us from the trials we must go through. Mystification of science and technology can be dangerous, because it blinds us, and we're no longer alert to the true problems of our time and push for too long in the wrong direction. In fact, the contemporary myths of the delivering power of modern technology have very little scientific foundation.

When we assume the role of human beings, with human joys and worries, we carry our burdens along steep and winding paths. Sharp stones will hurt our bare feet, but if there are no thorns, there are no roses. And if we don't walk barefoot, we won't feel the blossoms, which would be a great pity.

Dreams and yearning are fundamental human rights. Not even this rational era can take them away from us. In this confused age of sophisticated technology and human selfishness we more and more often dream of a world of mature global culture (not so superficial as the present one), in which every human being will be capable of ethical reflection. Only then will we be able to healthily include the wonderful achievements of the human mind into the wholeness of our experience, which we call life.

6.0.3 METHODOLOGY IN ECO-INNOVATION: HOLISTIC INSIGHT

It is obvious from the heaps of materials that are intended to regulate eco-projects that the basic methodology concerning this area of activity has not yet been developed; and this is most probably the main hindrance why the most necessary progress in this field is too slow.

In this section, some of the basic ideas are going to be expounded a little further. From what has been stated in the previous section, it must be clear that **any form of eco-innovation is indispensably united with innovative methods of fresh thinking and**

simultaneously also with innovative methods in the ways of social networking. In addition, the scientific knowledge accumulated in recent centuries, can be applied to select innovative solutions with a solid background and long-term benefits for the society.

For instance, it is absolutely impossible to implement any serious creative process that is (presumably!) obeying the criteria of ecology, into the exploded paradigm of asocial (purely technical) competitiveness embedded within our modern consumption society. This old paradigm is too much supported by tricky interests of financial powers (modern centres of social power) and is lacking human sensitivity and a sincere sense of vulnerability; in brief – this old paradigm is without ethics. But ethics is the obvious prerequisite for ecology; in fact, **ecology starts with the observation of ethics**. This simple fact is so often completely overlooked.

If eco-innovation lost touch with its founding principles and did found itself entrapped within a mesh of financial interests without ethics, then as the product of our development a whole fleet of new "green" items of consumption would probably emerge (or, alternatively, maybe new "green" national or international projects intended to attract public finances), but without any real long-term positive ecological impact. Most regretfully, this is exactly the case of the majority of present "eco-innovations". For someone who is not wholly awakened to painful lamentations (but also to inspiring songs) of our modern world, it has become excessively easy to bluff with this so attractive and therefore well-sold idea of ecology.

Therefore, everyone who wants to contribute in the field of ecology should be quite careful also about the questions of methodology. How can the husk from the grain be separated, until a profound sensitivity for the wholeness of life is developed? But this is not a matter of technology; it is a matter of wisdom – a quality that is thoroughly disregarded in our modern times.

In fact, the way into eco-society is not that linear. **Only the complete LCA (life cycle assessment) can reveal whether a certain eco-innovation is entitled to this fragile status.** But this complete LCA is an extremely arduous process. The ecology deals with very complex systems. How can the myriads of subtle influences be taken into account in the past, present, and in the future? How can one be sure that some necessary piece of information, on which the humankind depends, is really pure and not mingled with selfish interests of this or that player in the whole drama of our global society?

Such sensitive decisions (and ecology is always a sensitive affair!) cannot be carried out without searching for new forms of simplicity – but this search is feasible only by stepping out of the pure technical framework (or bureaucratic frame, which is still worse!); and by taking into account also the intuitive perception of reality. (The reason for this not purely technical perception has already been explained in point B above.)

Explaining this statement still further, it is absolutely impossible to subject any serious creative process that would obey the criteria of ecology, solely into the framework of bureaucratic evaluation. Professional assessment (expertise) is definitely obvious, yes, but that is still not enough. If the actors of social power are trying to control our search for new (therefore, not yet well-known) opportunities only through the glasses of established technical standards, then surely the essence of something new, the innermost essence of innovation will be missed. If the creative potentials and not yet realized dreams are sorted into separate boxes on the shelves of an important office (or into PC folders); and if these

boxes (or folders) are labelled by numbers defining the presupposed value of these projects – then these numbers reflect a great part of someone's (or of a group) position in the web of social powers, but only a small fragment of that objective serenity which is the life-giving sap of the dreams. In this case the creative potentials are pruned (or rather, mutilated) of the most basic content giving them their full value. The sense of orientation is lost. Hence, the bureaucratic evaluation of R&D projects may be extremely misleading.

One can be profoundly disappointed when knowing so many approved R&D projects that are "navigated by software" (but actually displaying hardly a fraction of innovative surplus). This method is in deep contrast with those "soft methods" that give a **deeper insight into the rich web of life (and are indispensable in the area of eco-innovation), methods that foster the delicate balance between the rational approach and the sensitive human experience.** This is in close relationship with the balance between the bottom-up and top-down approaches of the previous section where the reason for this obvious balance has been briefly expounded.

A sincere activity in the realm of eco-innovation, together with a fair judgement about the presupposed "weight" of the creative work in this area, is nonetheless possible – under the condition that **anyone taking part in this process is encouraged to take a genuine interest in the broad mental framework, in which eco-endeavour can really thrive.**

But this means that every working team should incorporate people (or at least should closely cooperate with such people) who have already acquired some public recognition in varied areas such as:

- basic natural sciences (mathematics, physics, chemistry, biology, etc.),
- applied natural sciences and technology (informational technology, engineering, etc.),
- psychology and sociology (understanding the deeper implications of our decisions and ways of functioning),
- various forms of art (literature, music, etc.),
- philosophy and religion.

On this *first level in the creative process of eco-innovation*, the stress is on the set of prerequisites that are necessary in order to understand the problems of ecology; here the stress is not on practical tools that are (on the next level of activity) used to realize the chosen goals. In modern society of intense networking, the first level is often underestimated. Too often the second level is reached, without first understanding the original problem well.

Here is a general example: When the problems of energy saving and/or switching to "greener" energy sources are considered, it is necessary to know in considerable detail the respective laws of physics (law of energy conservation, basic thermodynamics, conversion between different forms of energy, acquaintance with efficiencies in these conversion processes, etc.), chemistry (acquaintance with chemical or nuclear energy of various fuels, toxicity of reagents in chemical or nuclear cycles, etc.), biology (acquaintance with species in their natural habitats and balance between them, impact of human activity on habitats, understanding human health as a part of natural balance, etc.), informational technology (collecting widespread data, credible simulations of natural and engineering processes, etc.), engineering (knowing technology of many forms of energy conversion), psychology and sociology (understanding the myths within a particular society that

influence our decisions, ability to discern the real needs of a human being from those that are imposed by the market, etc.), art (development of intuitive perception of reality through different forms of art, cultivation of novel trans-languages through which the fresh questions of our present era can be expressed and communicated, etc.), philosophy and religion (development of a sober and serene view of reality, cultivation of spiritual values that liberate us from atavistic biological greed, etc.).

This example shows that all these **different aspects of creativity should go together hand in hand, all the way from the starting point onwards**. It is well understood that these first level prerequisites need to be active all the time through an eco-project, continuing also during the next stages that will be described later. This is the promise that the creative process remains well embedded into reality and does not go astray into one of the many traps of only partial understanding, produced by manipulative centres of social power. Critical questioning of this kind is therefore more important in the sensitive creative area named ecology.

Time and again, the importance of this deeper insight into the questions of ecology will be stressed. This is also why a language different from the one expected in texts of this kind is used. Namely, there is no intention to deceive ourselves by the emperor's new clothes in the form of modern eco-myths, if they are still fuelled by the old, worn-out social paradigm. Ecology will flourish in a new soil.

After all, what is the profound meaning of eco-awareness, of this great psychological shift in our mind? At this point of global transformation, time is getting ripe for this fundamental change. Once again it is expressed in a poetic language that will conclude this section.

Pure, unalloyed happiness is the fundamental nature of our deepest self, claimed the wise men of all times, in all human cultures. The blissfulness of life lies at the source of our awareness, not at the end of our aspirations. This is the return to meaning, which we are so desperately looking for in modern times. And this makes things very simple. The material world cannot offer us much more than food, clothes, a warm shelter, maybe also some simple means of knowledge and communication (books etc.).

Our activities in this world are needed only for the preservation of that fundamental harmony with the world, which enables us and all the beings that we love to remove the barriers preventing the experience of our true nature. Only if we assume a simple and innerly free life stance, when we are no longer slaves to fulfilling ever new material needs, is it possible to look at reality with a curious, child-like purity, to experience a heartfelt connection with the world, to pulsate in the joy of existence.

Our activity is like a tree, which grows, blossoms and bears fruit. The fruit is our gift to the unknown birds, but happiness is more like the sap, which flows into the roots and veins from the mysterious depths. If a tree started pursuing happiness through its fruit, it would never reach it. Isn't something like this happening right now, in this cacophonous era, which is putting the dissonant results of human endeavour first and foremost?

6.1 IDENTIFICATION OF THE SECTOR/SECTORS AND/OR CANDIDATE ECO-INNOVATION TYPOLOGY

In the previous section, the background of eco-innovations was described and the requirements for eco-innovation development were discussed. In this section, the promising sectors for eco-innovations in Inner-Karst region will be defined.

All sectors are developed to a specific technological and organizational level, so there is room for improvements with innovations. At the same time all the activities have some ecological effects so the ecological situation can change with the introduction of novelties. This means that all the sectors have a potential to be improved by eco-innovations. However, it looks wise to focus on those sectors where the ecological impact is big and where the room for technological or organizational room for improvement is visible.

In the ESA document it is emphasised: "It is clear that no individual result can reliably indicate a country's or region's performance in innovation. The results should be regarded in a collective account, and only by understanding of particular situation within a selected country a real judgement can be formed." And the same is valid for the identification of the sectors of reference and/or the technology of eco-innovation.

Below is the list of identified business sectors in Inner-Karst region for eco-innovations. It is based on the ESA document with additional suggested possibilities.

Very high relevance:

- tourism
- wooden furniture
- metal parts for construction
- renewable energies
- research, development and innovation

High relevance:

- culture, recreation and amusement connected to natural potentials
- metal parts for industrial use
- plastics products for mass production
- plastic products for packaging

Medium relevance:

- wood primary production
- various food processing
- various electronics
- road transport

Besides the existing businesses, Inner-Karst region is rich in natural beauty, especially with low population density regions, including unspoiled nature resources such as the intermittent lake and the Karst caves. **Natural forests and beautiful meadows are calling for horse breeding, riding schools and a few days riding tours to provide a complete tourist offer**. Unfortunately, this potential is not fully exploited. The innovative approach to use those resources is of paramount importance. A new model for such tourism can be developed and it has to be directed by the already existing institutes such as the Regional

Development Agency, the Society for Rural Development of the Land between Snežnik and Nanos, the Innovation Centre and others.

One of the obstacles in the region is the absence of interest for cooperation on the personal level as well as between companies. The institutes in the region have difficulties in establishing a synergy between the Inner and the Karst part of the region. Additionally, there are some economically successful companies in the Inner part of the region (Kovinoplastika Lož and Ydria Motors), whereas bigger companies (Plama, Javor Pivka, Kolektor Liv) in the Karst part of the region are less successful, maybe due to their weak R&D activities. To improve the willingness to cooperate, a positive motivation is needed. The trash removal national action (Očistimo Slovenijo 2010) is one of the examples of positive motivation on a personal level. A high percentage of population and municipality organizations were involved to demonstrate good personal relations. Thus, **a positive motivation is when the goals are clearly of a pure ethical nature and beneficiary for the society.**

6.2 IDENTIFICATION OF THE GLOBAL OBJECTIVE

The general global objective has to be based on the basic elements of eco-innovations discussed in chapter 6.0. In order to connect the philosophy of innovations and ecology, they have to be linked to the existing ecosystem. This ecosystem includes both the society and natural environment. Let us discuss the existing ecosystem in more detail.

6.2.1 METHODOLOGY IN ECO-INNOVATION: PRACTICAL QUALITIES

From what has been stated above, several working conclusions can be drawn. After the above mentioned primary accomplishment of the problem, after its profound understanding, some basic tools that are meant to function on the *second level in the creative process of eco-innovation are developed*.

These tools already beget the proposed characteristic qualities within working teams that are taking part in any kind of eco-innovation. These features are, among others:

1) **Eco-projects are inspired and directed by profound scientific insight** (versus bureaucracy that is prevailing today). Full value is rendered to serious knowledge with low entropy and with high potentials of a clear message. Broad (trans-disciplinary) knowledge of natural laws is the indispensable background, a protective shield against manipulations. The LCA evaluation made on this basis should be complete and especially sincere, which means: with high ethical standards. Anyway, the observation of ethical standards is the "ingredient" in all items of this list, including the following one:

2) **The creative process is all the time opened into profound human experience** (philosophical term: *condition humaine*) that acts as a sensitive regulatory feedback. For instance, the actors are genuinely interested in the way how the inventions are used. Do they make people happier, how do they influence our lives? Maybe they even engender some subtle changes in human awareness? If so, in which sense?

3) In practice, this means: **Scientific insight is incorporated into the trilogy "science - art - philosophy/religion"**. All three pillars of this trilogy are equally important. If they work together in harmony, they are reducing the entropy of the creative process – which is

more than important in our modern times. It is illustrated it by an example that neither "l'art pour l'art" nor "science for the sake of science" may be cultivated.

4) **In aspiration for low entropy of the creative process, simplicity is striven for**. Every step must be a bearer of useful meaning. Unnecessary paper work is reduced to a minimum. Most of these steps are primarily evaluated through human experience and democratic exchange/upgrading of this vivid experience, not through papers. All the participants in eco-projects are stimulated to lead a healthy life (physically and also spiritually), so that the above mentioned human experience cannot be obscured by veils of ignorance.

5) The last point is extremely important. Contemporary problems of ecology cannot be solved merely by prosecution of the current hyper-production (of any kind: new unnecessary items, papers that no one has time to read, etc.). In the present-day crisis of over-abundance of things and ideas (which leads to a growing entropy of the society and of each individual) **it is absolutely necessary to find out those articles (or ideas) which offer a unique simplification of the old and thus bring in the new.**

6) In relation to all that has been said up to this point, **communication in science has a special and very important role**. There are two types of communication in science:

7) The first type is communication inside the chosen areas of scientific research. Communication within definite specialities is already a well-developed standard in scientific research, but now (and especially in eco-innovation) **it is even more important to cultivate transdisciplinary communication**, that is communication between different areas of modern science (for instance: physics, biology, anthropology, and sociology, etc.). A great progress is still left to be made in this field, and it is worth of endeavour.

8) The second type is communication between scientists and "lay people". Scientists are part of a much larger community, so they are responsible for finding a language in which they can express their creative achievements. This **language should be understandable to a layman, but should be still full of meaning and sincerity**. And surely without any trace of manipulation! (Regretfully this is so often the praxis in order to get funding, but this is the problem of the whole high-entropy society, not of scientists only).

9) If this second type of communication is constructive and trustworthy, then **a network of reliable feedback loops among all subjects in the process is developed that is answering for clarity and a positive orientation of the whole creative process.** With this, the idea of "complete human experience" that was elaborated in points 2 and 3 above is encompassed – but here a personal experience is extended to an experience within a larger society.

10) Another **important feature in the process of eco-innovation is education**. Presently, humanity is slowly shifting from the biologically inflicted tendency of illusory dominance over Nature towards a much more mature eco-awareness, which is mainly culturally promoted. However, **eco-awareness** (respect for the holiness of space and harmony with all forms of living beings) is not yet a part of the predominant cultural inheritance, thus various means need to be applied in order to launch an appropriate social climate yielding ecology its place of worth.

11) Education is a multi-layered process. It stretches from general education (philosophical, psychological, and social prerequisites for eco-awareness) to a wide range of technical details. **Education is a non-violent weapon in conflicts with adverse streams represented by opportunistic lobbies in politics or public opinion.**

12) **Every activity is considered both locally and globally, it should have value in both senses, should be observed from both viewpoints.** Now, a new term *glocality* is introduced, coined from the words globality and locality. Feedback loops mentioned before bring the loftiest achievements back to the Earth, back to a local place where they are mirrored in everyday experience. In the same time, many fertile seeds from the open world should not be dismissed, for instance the achievements of modern science and technology. If taken correctly, these can only enrich ecological solutions.

13) A beautiful parabola for globality (the end-state of globalization) is as follows: Man (or woman) is like a tree. It is rooted firmly in the ground; the patterned bark is protecting its identity and its sap of life as well. But winds from distant lands are whispering through its branches. The tree is listening to these distant voices when it is sending and dispersing its flying seeds far around, to all four directions of the globe.

14) It is necessary to develop new forms of activity within the modern multi-cultural environment, so that this is a benefit, not a hindrance. Visitors, lecturers, co-workers from other countries are cordially invited. The same can be extended even to the global scale: Prejudices about the walls between Eastern and Western cultural traditions are, to a great extent, remnants of the old colonial arrogance, so they should be dissolved within new forms of cooperation, transcending cultural differences. The whole world is one single family. Therefore, these new forms of cooperation are to be ardently sought for.

15) In creative teams, the atmosphere is formed where both sexes have equal value. Today, this atmosphere is still rather traditional, both sexes divided. **Modern gender studies imply that a huge creative potential is still unreleased because of this cultural gap.** This problem is particularly apparent in the realm of ecology where it is so important that the left and the right half of our brain work together in harmony.

16) **Eco-innovation requires a profound relationship with nature.** A relationship embedded into technical forms is not enough, since through technical forms only the feature of nature that is tamed for our interests is perceived. This is not the reality of the genuine, untamed nature that can teach much more about ecology than any theory can do. It is expected that, as much as possible (as much as the weather and the need for equipment permit), the activities take place in a natural climate, in the open air, in the natural environment.

17) **Dominant influences that motivate the choosing of a definite working problem have to be recognised in order to find a direction toward definite innovative solutions.** One **very important motivation is the appreciation for nature**, a wonder after its beauty. This wonder is an inexhaustible source of fresh ideas on the way to useful inventions.

18) There are several other important motivations. One of them is the **general benefit for humanity**. This is in close relationship with our ethical awareness. Especially when a certain task is difficult to realize, then the ethical impulse is the most powerful stimulation to overcome the obstacles. It is a much more powerful and especially much more reliable motivation than, for instance, the economic drive.

19) Another strong motivation is **an inner sense of mastership, excellence in work**. This quality is indispensable already in the beginning, at the stage when the feasibility of a certain project is assessed. The more a project is exuberant, the more it is risky. Can the outcome be foreseen in advance? The art of prophesy is built on the basis of profound scientific insight, which was discussed in point 1 above and in the previous section. The border of feasibility is known when one is not satisfied with the analysis of straightforward variants but goes much further. This means that 90% of work is done “in vain” and only 10%

is visible – but in fact, nothing is done in vain: by recognizing a barren land one clearly discerns areas of fertility. However, no royal path exists in science and in the art of innovating.

20) **The economic criterion (profitability)** is surely also an important creative drive, but it is deliberately put it at the end of our list since it is usually overestimated, due to the reasons mentioned at the beginning of this study. The economic criterion on the top of the list does not lead to beneficial, long-lasting and reliable innovations – especially in these days marked by the collapse of mainstream economy.

At any stage of the creative process in eco-innovation, the basic founding principles should always be kept in mind. The present section will be finished with a short passage, this one taken from the book "On creativity in scientific research" (2006), by the late academician Andrej O. Župančič. It deals with the obligation to combine both the rational and the intuitive approach.

It may be true that the isolated view is a crucial discovery of the European culture, but it is legitimate to doubt that the mistake (produced by this reductionism) is really negligible. Jean-Pierre Petit verifies (1997) that we have neglected a whole half of the universe. If he is right, then the crucial discovery of the Western culture is at the time also its crucial delusion …
Is creativity in scientific research an irrational process? Within the creative phase: yes; but within the subsequent, communicative phase: no more. Henri Poincaré similarly declares: The facts are meant for communication, while imagination is for the process of discovery. In general, the creative level is inductive and hypothetical, while the communicative level is deductive and empirically verifiable. However, sharp discrimination is an artificial dissection: Quite often, the verification of predictions implies a development of methods that are found by creative deductions. In brief, both are necessary: on the creative level, the process is trans-conscious, illogical, and metaphorical, beyond words; on the communicative level, the process is conscious, logical, rational, and expressible in words.

6.2.2 ECOSYSTEMS

There are different kinds of ecosystems. In most typical ones – let us take the forest as example – all living beings are closely connected and mutually dependent on each other. This kind of a system is a living one and it evolves with time.

A human society can be seen as a large ecosystem with many direct and indirect connections between different members (or elements). Who or what are the members of this ecosystem? Thinking *bottom-up*, it all begins with people. And people organize themselves in larger groups or organizations in order to be more efficient and to simplify and carry out some common activities or needs. This joining process of people to families, companies, foundations, associations, political parties, and other groups erases or reduces some of their basic beliefs, needs, hopes, visions, and also brings to light some other characteristics. In this new form of an ecosystem these new groups with new attributes and characteristics play active roles.

It is also important to mention that such ecosystem (with its elements and connections) is a natural phenomenon, organically developed through rough evolution, competing with all other possible alternatives. As such it will most probably evolve in an S-shape curve. As

it seems today, its end is coming and thus alternatives have to be found as well as a smooth transition towards a new ecosystem.

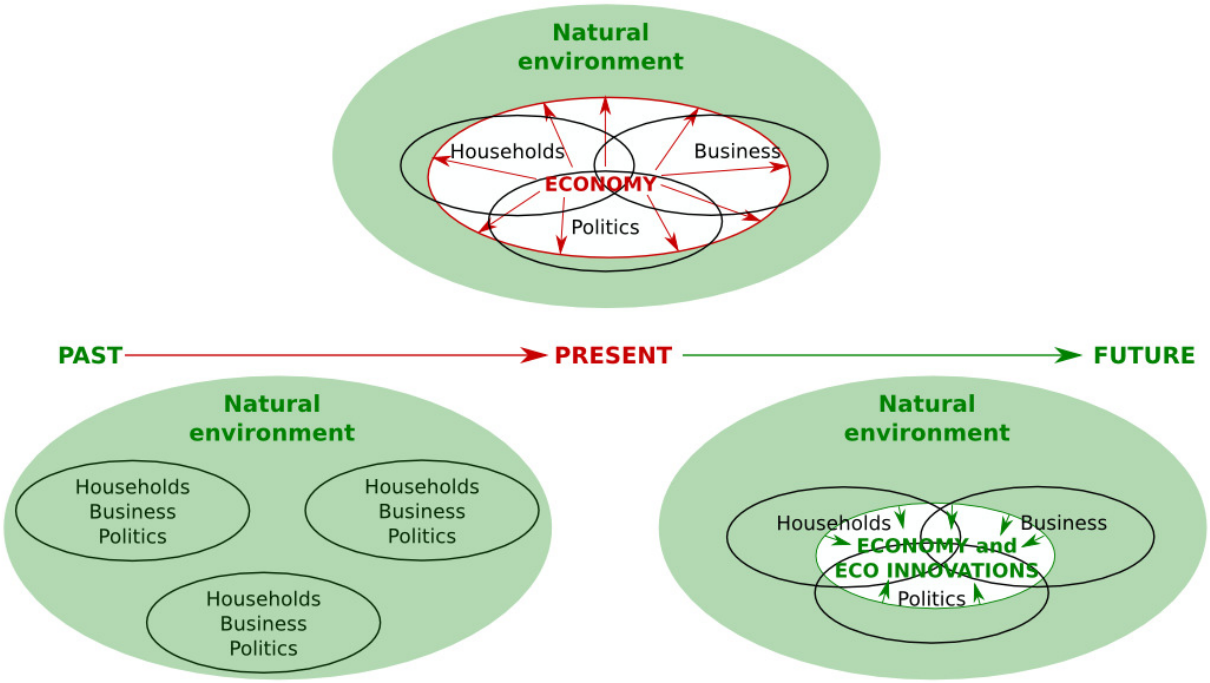
Economy is an important issue in this ecosystem. The exchanges of ideas, items and all other flows and relations in this ecosystem are partly ruled by written and unwritten rules of economy. These days those rules are complex and sometimes a base for manipulations. However, this must not hide its important aspect in the society. **One has to understand the language of the economy in order to suggest changes.** One of such examples is the concept of hidden costs. The others are LCAs. On the other hand, one has to be very careful when using the economy, which is a powerful tool of the 20th and 21st century since it can have huge impacts on the society, its ecosystem and the broader ecosystem of our planet. Only in such a broad definition all relevant aspects can be taken into account.

The ecosystem, to which the eco-innovation strategy is focused, consists of four main elements:

1. Natural environment,
2. Households,
3. Businesses and
4. Politics.

The historical relation between the natural environment and the other main elements is presented in Figure 1. In the past, all three main elements were united in small groups of people, organised in tribes. They were completely in tune with the natural environment. Through millenniums they gained knowledge and the society became more sophisticated – the domains of families, politics and companies were formed. Economy became one of the main criterions for decisions, and the natural environment lost importance in the life of the people. Presently, the economy pushed the natural environment to the marginal part of the people awareness resulting in dramatic changes in the natural environment. Since the profit is still the main parameter for decisions, eco-innovations are the only solution to pull the natural environment back, to raise awareness in the society. Further on, economy is the main driving factor of the present society, thus **the most effective stimulation of eco-innovations can be done through economy**. But it is clear that the stimulation of eco-innovations in the society, where the natural environment plays a marginal role, is not a trivial task. **It is of paramount importance that the natural environment takes an important place in the society to establish a fruitful environment for eco-innovations.**

Figure 3: The presence of the natural environment in the society. The economy is pushing the natural environment from the society. Eco-innovations supported by the modern economy trends can revive the importance of the natural environment in the society and thus stimulate eco-innovations even more.



The eco-innovation strategy is related to the changes in the ecosystem defined above. Thus, the global objective of eco-innovation strategy deals with the origins of crucial activities in the ecosystem. The most important are activities that have an influence on the natural environment, e.g. spatial planning, use of natural resources, direct influences on the natural environments with infrastructure and emissions, the introduction of new products and services, households' investments and activities, and other influential decisions.

One of the possible global objectives and definitions is: **"To bring ecological and innovative thinking into professional and personal decision making,"** where ecological thinking means: taking into consideration all main influences of the decision in the influenced environment, including future feedback loops. Innovative thinking means: searching for new, creative approaches and solutions.

6.2.3 GENERAL ACTIVITIES TO PROMOTE ECO-INNOVATIONS IN IDENTIFIED SECTORS

The selected global objective can be applied to sectors defined in the ESA document and in the previous chapter. In order to derive the lower hierarchical level objectives and strategy steps, some understandable examples of suggestions derived from the global objective for different sectors and different actors in the ecosystem should be given. The focus should be in high relevance sectors and the three elements of the ecosystem that can be directly influenced by the eco-innovation strategy (Table 1). At the same time, it has to be emphasized that the ideas and proposals need to be addressed to the individual

sector or organisation with regard to all players within it. The reason is in the very nature of creativity and skills. It is impossible to prescribe solutions to people who are active in a specific segment and who will grow the idea. Only suggestions and mechanisms of implementation, based on examples of good practices by education in creative thinking and other required predispositions for eco-innovation, can be given.

In general, Politics (institutions like the Regional Development Centre, the Chamber of Commerce, and other supporting organisations) has to promote ecological awareness and support other ecosystem members in their activities regarding eco-innovations. In the case of tourism, Politics sets the rules to stimulate and support eco-innovations, together with Business, which will react to those rules by organising dedicated educational activities for Business and Households, by setting suitable business plans for eco-tourism, and by building the required infrastructure. Households will bring new ideas for their specific case to develop eco tourism. Politics should help those ideas to materialize by dedicated funding schemes, thus completing the circle. Clearly, there should be a place also for the ideas emerged among Business ecosystem members.

Apart from the main objectives, the lower hierarchical level objectives and strategy lines will also be described in next chapters.

Table 5: Activities of ecosystem members

Sector	Politics (Regional Development Centre, etc.)	Businesses	Households
Tourism	• systems for ecological comparison between tourist activities • seminars and workshops on creativity in eco-tourism, opportunities to put into effect the ideas of eco-tourism, best practice eco-tourism • promotion of good ecological tourist activities, “blue ocean” opportunities in tourism • set up the Zeleni Kras™ in tourism	• business plans • infrastructures • seminars and workshops: organisation and participation • bring new ideas (eco-innovations)	• participation on seminars and workshops on eco-tourism • bringing new ideas (eco-innovations) for specific household situations for eco-tourism
-Manufacturers: Wooden furniture and metal parts for construction	• stimulating mechanisms for eco-innovations • stimulative regulations for cooperation between companies • set up the Zeleni Kras™ for industrial products.	• mechanisms for promoting eco-innovations • combining design, functionality and sustainable production methods • searching for new ways of promotion, based on new technologies and other ideas	• /
Renewable energy	• stimulating mechanisms for eco-innovations • improving cooperation between local tourist	• business plans • promotion • customer support	implementation of systems for household use • “Home made” development of a

	organizations and businesses • set up the Zeleni Kras™ for renewable energy products.		renewable energy system.

6.3 STRATEGIC SYSTEM

The ecosystem described in the previous chapter consists of members (elements), rules (connections) and existing positive seeds in the system (from the eco-innovation point of view). The strategic lines relate to the elements that can be directly influenced by further operations proposed for strengthening eco-innovation. The main focus groups are the key players and the main content is the content that has a potential to represent a solid base for eco-innovation. Local strengths have to be used in order to exploit possible competitive advantages, with natural benefits acting as a base for higher added value.

6.3.1 KEY PLAYERS IN THE STRATEGIC SYSTEM

Ecosystem members:

- Politics
- Businesses
- Households

The ecosystem members are generalised in only three basic groups, and are listed in a manner of top-down approach. All of the members are taken in as broad as possible. Thus, the education system is mostly covered by Politics, but to a certain extent also by Business. The same holds true also for most Non-governmental organisations (NGO).

In all three members it all begins with people. A broader education and an increase of ecology and innovation awareness are among key backgrounds for all eco-innovation projects to succeed. Broader learning-by-doing and active demonstrations and good practice activities have to be prepared in order to show the benefits and potentials of eco-innovation.

Ecosystem rules:

- International relations
- Business activities
- Laws and regulations
- Personal relations

It is important to emphasize that in a complex system, such as a modern day global society, the decision making process does not only depend on the personal view about the best steps for the future, but it is fixed to the existing processes. Economic thinking is one of the prevailing.

Ecosystem positive seeds:

- Innovative and ecologically orientated individuals
- Innovative and ecologically orientated associations
- Innovative and ecologically orientated NGOs
- Innovative and ecologically orientated companies
- Innovative and ecologically orientated politicians

- Good practise examples from the ecological-innovation field

The motivation for the existing positive actors in the ecosystem is mainly based on non-economic motives. It is important to learn from those examples and to support them during the time in which ecological-innovation is not competitive to economical-innovation. With such approach the role of natural environment in the society will be enhanced and the paradigm in thinking can shift toward the ecological-innovation direction, thus forming the required environment for eco-innovations.

6.3.2 KEY STRATEGIC LINES

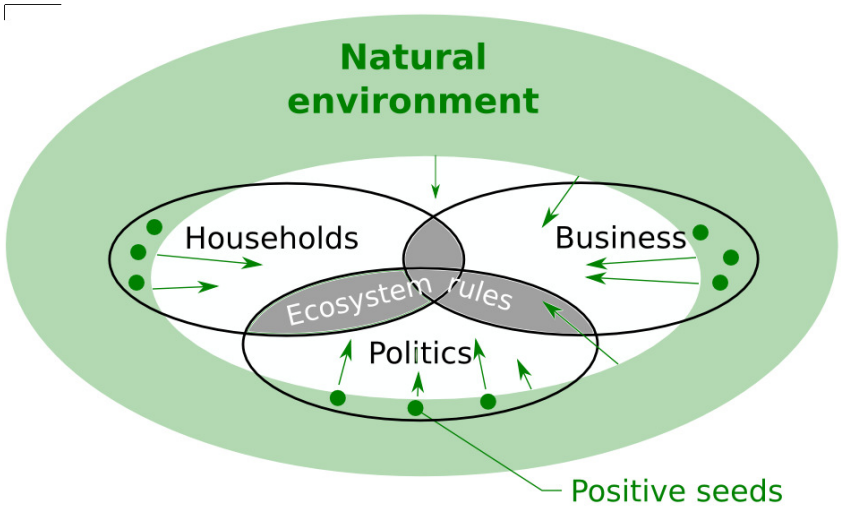
The key strategic lines have to be defined in order to have a clear set of guidelines for further operational activities. The idea is symbolically presented in Figure 2.

The members of the society are connected by certain rules, values, and ethics. These characteristics were developed through time within the society, and the members of the society are their founders. The future generation's values and ethics are mostly influenced by the family (Households) and by the education system (Politics, Business). The family environment is mostly controlled by the mass media, whereas the school environment is controlled by regulations and rules. Thus, the **mass media and educational regulations have to be used as instruments to emphasize the importance of the natural environment, and to show that creativity is more important than competition, especially in education.**

Ecosystem rules regulate the relations between ecosystem members. Laws and regulations are mostly imposed by Politics, and can be used to emphasise the role of the natural environment to stimulate and support eco-innovations. On one hand, the mass media and educational regulations promote the creation of an environment for eco-innovations on the personal level (Households) and they help to enforce personal relations that are based on ecological activities. On the other hand, the laws and regulations can form an environment suitable for eco-innovations. Additionally, the rules and regulations imposed by Politics have a strong influence on other ecosystem rules: Business actions can be directed towards “green technologies” and international relations based on ecological activities must be favoured. Consequently, new personal relations based on ecological activities are formed.

In the process of pulling the natural environment back to the ecosystem members, which is a precondition for eco-innovations, the positive seeds in the environment can play a vital role. Their influences on ecosystem members have to be enforced by suitable mechanisms.

Figure 4: Ecosystem rules between ecosystem members have to be improved to promote positive seeds for the ecosystem and to pull back the natural environment from the margins of our society.



It is important to notice that as the base for a successful eco-innovation strategy, a central authority can only give guidance and suggest which content can be in primary focus for the further analysis and exploitation of potential opportunities. The initiatives for a serious business or other activities have to come from those entities who will act as their managers and leaders. In order to define the strategic system, the following general strategic lines to support eco-innovations are given:

1. PROMOTION of ecological awareness and good practises in eco-innovation as broadly as possible.
2. SUPPORT of eco-innovation initiatives and existing eco-innovation activities.
3. EDUCATION: Establish education in creative thinking, enhance eco-awareness in formal education and stimulate the cooperation between other education entities in the region and in the country.
4. MENTORING: Offering expert mentoring sessions for potentially interesting eco-innovation with a high potential influence.

Those general strategic lines are analyzed in detail in the next chapter.

6.4 FRAMEWORK OF THE OPERATIONAL OBJECTIVES

In this chapter, clear and coherent sets of objectives for each strategic line identified in the previous chapter are proposed.

6.3.1 PROMOTION

Public consciousness is a foundation stone, which moves the brain barriers and is vital for the development of the innovation culture in the nation. Thus, promotion is the most important strategic line. To prepare the firm base ground for eco-innovations, it is necessary to enhance the importance of the natural environment in the public consciousness. This is a long process and the main results will be measurable far after the

completion of this project. There are two instruments that can be used to raise public consciousness.

- The highest and fastest impact is in the hands of the **mass media**. It is necessary to use this tool to promote the ecological way of living.
- The slowest but the deepest impact is in the hands of **education in elementary and secondary schools**.

Both instruments are influenced by Politics. Values such as the ecological stance and the innovative spirit have to be encouraged. Positive seeds found in the local environment can be used as best practice models to promote these values. At the same time, they can benefit the promotion activities.

6.4.2 SUPPORT

In order to create effective support actions, the coordination between innovation and ecology on the level of national policies has to be improved. Additionally, the organisational structure and various supporting bodies related to eco-innovation have to be defragmented and better integrated. There is still a question of how to broaden the horizon of the innovation policy and make different parts of the government see the importance of a coordinated horizontal approach to innovation policy. Support policies focused on tax relief have recently been actively increased and the creation of links between the research and business sectors is increasing, but still not enough to achieve the technology breakthrough. **The political structures have to aim for the same goal: The technology breakthrough.** Here the word "technology" must be understood in its broadest meaning.

To reach the technology breakthrough, the following objectives need to be addressed:

- Supporting the activities of positive seeds (individuals, companies, NGOs, etc.) in the region.
- Development of new ecological technologies in SMEs through technology procurement and aids at national and regional level.
- Establishment of opportunities for the integration of the vertical production chain in the region.
- Exemption from local taxes when investing in eco-innovation projects.
- Establishment of incentives targeted at shortening replacement/production cycles.
- Creation of effective models and incentives of R&D and industry interconnection in order to reach a critical mass for the development break-through.
- Independent innovators and SMEs need support in the intellectual property right (IPR) protection of eco-innovations and in commercialising their products. A big problem for them is patenting. To sustain an international patent is expensive, thus the product should already be on the market in order to have enough funds to pay for the protection. The problem can be solved by introducing new project calls to cover the costs for the IPR protection, which should last three to five years. The business plan should be the project proposal. The successful projects should help in the funding of new innovations. Each eco-innovation candidate should be judged from various points of view. It should express a genuine interest for the broad mental framework in which eco-endeavour can really thrive. Thus, the eco-

innovation candidate has to be checked from the following points of view: basic natural sciences, applied natural sciences and technology, psychology and sociology (understanding the deeper implications of our decisions and ways of functioning), various forms of art, philosophy and religion. In case the innovation is recognised as an eco-innovation, the candidate is evaluated from the business point of view.

- Support infrastructure oriented towards research and technology transfer to local companies; the development of a support structure to support the wood and metal industry, renewable energy, and waste management would be especially promising.
- Endeavour to establish a small but effective regional investment fund to enable a seed capital for young start-up companies and individuals, mainly oriented towards the development and implementation of eco-innovation projects.
- Establishment of measures for the development of tourism with emphasis on the integration of equivalent natural values, cultural heritage and complementary tourist offers.
- Instalment of systems and procedures for preserving the region's biggest asset – the quality (mostly) unspoiled environment in accordance with the Green Karst strategic outlines.

6.3.3 EDUCATION

Education is used to provide a general knowledge and to develop personal and social ethics. In the present education system, competition is more important than creativity, which is one of the main failures.

- Introduction of new paradigms in elementary and secondary school education. This objective should be mainly solved on the national level. However, the introduction of ecological themes as extra activities in school can be done locally.
- The innovation culture should be activated through the education process, from households to enterprises. This task is strongly related to the school of creative thinking.
- Establishment of measures within the educational system that contribute to the knowledge-based society with the promotion of practical innovation activities of students, ICT based activities, eco-innovation, etc.

6.4.4 MENTORING

In contrast to education, mentoring deals with a specific situation. A mentor examines the specific situation of the eco-innovation and he/she proposes activities that will lead to the final goal: To bring the product successfully to the market.

- Education on intellectual property rights (IPR) protection and commercialisation is already covered by various institutions on the national level. The objective is **to set up a mentoring system to guide and propose solutions for the specific cases of eco-innovations.**
- **The mentors have to be highly skilled and experienced in the field they are working in as mentors**. The following fields need to be covered:
  - ecology (including the LCA),
  - preparing business plans,

- IPR protection.

6.5 ANALYSIS OF THE COHERENCE AMONG INTERVENTION NEEDS, AND POSSIBLE STRATEGIC LINES AND OPERATIONAL OBJECTIVES

MATRIX 2 –ANALYSIS OF THE COHERENCE BETWEEN INTERVENTION NEEDS AND STRATEGIC LINES

a. Intervention needs	b. Sector/typology of reference eco-innovation	c. Strategic lines	d. Stakeholders involved or to be involved	e. Relevance for the strategy
1.Poor financial background in the region, low added value	*Tourism, manufacturing and renewable energy*	*Education, mentoring*	*Businesses, politics, households*	*4*
2 Brain drain (to Ljubljana), no R&D and no critical mass for R&D	*Manufacturing and renewable energy*	*Support, education*	*Businesses, politics, households*	*3*
3. Lack of ambitious development planning and low EU funds absorption	*Tourism, manufacturing and renewable energy*	*Promotion, support, mentoring*	*Businesses, politics, households*	*2*
4. Slow growth of local economy	*Tourism, manufacturing and renewable energy*	*Education*	*Businesses, politics, households*	5 – the least relevant among this group
5. Lack of innovative culture, thinking and new ventures	*Tourism, manufacturing and renewable energy*	*Promotion, support, education, mentoring*	*Businesses, politics, households*	1 – the most important issue

MATRIX 3 – SYNTHESIS FRAMEWORK OF SOP OBJECTIVES

Global SOP objective	Strategic lines	Operational objectives	Possible identifiable actions
Bringing eco-innovation thinking, knowledge and implementa-tion into action in the region	*1.Promotion*	*Raising awareness of eco-innovation existence, importance and opportunities*	*Promoting eco-innovation trough new mass media (blogs, twitter, advanced web portals like* www.pozitivke.net , www.vest.si *)* *Promotion trough pilot projects* Instalment of systems and procedures for preserving the region's biggest asset – the quality (mostly) unspoiled environment in accordance with the Green Karst strategic outlines.
	2.Education and mentoring	*Bringing eco-innovation knowledge to households*	Introduction of new paradigms in elementary and secondary school education by establishment of measures within the educational system that contribute to the knowledge-based society with the promotion of practical innovation activities of students, ICT based activities, eco-innovation, etc.
		Bringing eco-innovation knowledge to businesses.	Mentoring (intellectual property rights (IPR) protection and ecological product commercialization) potential start-ups and existing businesses aiming towards eco-innovation
		Bringing eco-innovation knowledge to politics.	Mentoring key policymakers about eco-innovation
	4.Support	Raising the number of successful eco-innovation projects	Support the activities of positive seeds (individuals, companies, NGOs, etc.) and especially innovative eco pilot projects in the region. Development of new ecological technologies in SMEs through technology procurement and aids at national and regional level. Establishment of opportunities for the integration of the vertical production chain in the region. Exemption from local taxes when investing in eco-innovation projects. Creation of effective models and incentives of R&D and industry interconnection in order to reach a critical mass for the development break-through. Introduction of new project calls to cover the costs for the proof-of-concept and the proof-of-market and the IPR protection stage for innovators and SMEs. The business plan should be the project proposal. The successful projects should help in the funding of new

			innovations. Support infrastructure oriented towards research and technology transfer to local companies. Endeavour to establish a small but effective regional investment fund to enable a seed capital for young start-up companies and individuals, mainly oriented towards the development and implementation of eco-innovation projects. Establishment of measures for the development of tourism with an emphasis on the integration of equivalent natural values, cultural heritage and complementary tourist offers.

Part 7
THE OPERATIONAL PLAN

7. THE OPERATIONAL PLAN

7.1 GOOD PRACTICES FOR THE ACTUATION OF THE STRATEGIC AND OPERATIONAL PLAN

7.1.1 IDENTIFIED GOOD PRACTICE n.1 "ARX view – universal window wing"

Good practice Title	**ARX view – universal window wing**
Promoting Subject	Eco-innovation solution in the metal processing and construction industry
Good Practice Description	The "ARX view – universal window wing" received an award for innovation from the Chamber of Commerce and Industry of Slovenia on the regional level in June 2009 and on the national level in September 2009. The concept of window wing "ARX view" is a novelty in the area of building fittings as the window wing is applicable to any window fitting, regardless of whether it is made of plastics, wood or aluminium. Although the development costs for such an innovation are relatively high, the benefits are also significant. In addition to increasing the company's profits, the development of "ARX view" includes a 20 – 35 % decrease of raw material consumption and a 20 – 40 % decrease of energy usage, which significantly contributes to the preservation of the environment. Furthermore, the "ARX view" benefits consumers as well, due to several advantages that the innovation enables. Such benefits pertain to saving energy due to a better heat isolation and a higher input of light and heat into the building space, sound isolation and a higher anti-burglary safety, the integration of shade elements and modules within the window wing. For the development of this product, Kovinoplastika Lož d.d. received co-financing by the European programme, LIFE. In this way "ARX view" stands as a highly demanded product with high added value that significantly contributes to the preservation of the environment. The "ARX view" is one of many product innovations that the company is occupied with. Innovation processes are usually imbedded in organizational internal research departments. When dealing with innovation, the organization is sometimes faced with a lack of specific knowledge, pertaining to technological solutions. This is also the reason for the company's longstanding tradition in cooperating with different organizations, depending on the nature of the problem that the company is aspiring to address with its innovative product.
Info (website, contacts etc.)	Kovinoplastika Lož d.d., Cesta 19. oktobra 57, 1386 Stari trg pri Ložu, www.kovinoplastika.si , Elizabeta Mate, Janez Poje elizabeta.mate@kovinoplastika.si, tel: +386 1 709 5282
Name of the MEDOSSIC	RDA Inner – Karst

project partner that analyzed the good practice and reference code of the Good Practices report of project partners (deliverable number)	Deliverable number: 3.12
Why does it represent a good practice for the identified pilot project/projects? What are the essential elements of good practice suitable for the identified pilot project?	This rewarded product is a proof that there is a very valuable eco-innovation potential in the region. As such, it can be a good practice for other companies, especially because it deals with industries and technologies that are very much present in the region. What is very important, is also the message how the company has obtained such a successful product, namely by systematic work on the operational processes and innovation culture. This good practice can serve as an example for the pilot project dealing with dissemination of the good practices in the region.

7.1.2 IDENTIFIED GOOD PRACTICE N.2 "ECO CHAMBER"

Good practice Title	**Eco Chamber**
Promoting Subject	Web portal for the promotion of eco-innovation
Good Practice Description	EcoCámara is a web-portal created by the Málaga Chamber of Commerce in collaboration with the Information Systems Agedum, a consultant to help all those companies wishing to implement the Law 26/2007 about 'Responsibility' to the Environment. Its main objective is the promotion of competitiveness of the productive sector in the province of Malaga. The main activity is the promotion of expansion of local companies abroad through innovation. The web portal is a central information point for eco-innovation in the region. Besides the passive information provision, a newsletter is also being sent to the selected list of recipients. The content of the information and news published on the web portal needs to comply with the legal requirements, cost savings, the corporate social responsibility strategies etc.
Info (website, contacts etc.)	Chamber of Commerce of the Province of Málaga, C/ Cortina del Muelle 23 Mr. José María Gómez Pretel, tel: 952 211673
Name of the MEDOSSIC project partner that analyzed the good practice and reference code of the Good Practices report of project partners (deliverable number)	Provincial Government of Málaga Deliverable number: 3.2
Why does it represent a good practice for the identified pilot	The described web portal could serve as a good practice example also for Inner–Karst region because, with relatively low costs of investment and operation, it can result in a great multiplication of effects in the

project/projects? What are the essential elements of good practice suitable for the identified pilot project?	regional business environment. A similar web portal proposed in the pilot project with a description of good practices, important information regarding regulations, funding opportunities, innovation commercialisation etc. could help a lot to the regional companies and entrepreneurs.

7.1.3 IDENTIFIED GOOD PRACTICE N.3 "TURISMO SOSTENIBILE" / SUSTAINABLE TOURISM"

Good practice Title	**"Turismo Sostenibile" / Soustainable Tourism**
Promoting Subject	Introduction of sustainable forms of operation in tourism
Good Practice Description	About a decade ago, the Province of Rimini put among its priorities the pursuit of the objective of sustainable tourism in accordance with the concept that "environmental quality is not only a must, but a new and strategic factor of competitiveness and of economic growth". In this sense, in 2000, the Province of Rimini started an important run in the tourism field, initially with the project "Strategies and Tools for sustainable tourism in Mediterranean coastal areas - LIFE MED COAST S-T"[1], funded through the community program LIFE Ambiente. This was the starting point of the challenge of Rimini toward sustainable tourism, in a walk that has seen the active participation of the public and private sectors in order to build a common base to develop a strategy of sustainable tourism for destinations of mass tourism. The Province of Rimini and the five hotel keepers associations of the coastal municipalities have shared, in the last decade, a virtuous run to decrease the impact on the environment of the tourist services and at the same time decrease the costs. The tourism department of the Province of Rimini exposed itself to the European attention as a tourist destination of mass that is concretising an exemplary sustainable tourist development more than others. Activities, initiatives, funding and the identification of best practices was held at local, national and EU level; such initiatives included Agenda 21 Lokalitaliane, Bagniuno ecologico, Riccigone GO.IT, Acquistiti Verdi Turismo.
Info (website, contacts etc.)	Provincia di Rimini – Unità Operativa Autonoma Sviluppo Sostenibile Via D. Campana, 64 – 47900 Rimini www.turismosostenibile.provincia.rimini.it turismosostenibile@provincia.rimini.it tel: +39 0541 716321 Arch. Massimo Briani Enzo Finocchiaro per il progetto SUVOT

[1] Web site del progetto www.life-sustainable-tourism.org

Name of the MEDOSSIC project partner that analyzed the good practice and reference code of the Good Practices report of project partners (deliverable number)	PP6 DELTA 2000 Soc. Cons. a r.l. Deliverable number: 3.17
Why does it represent a good practice for the identified pilot project/projects? What are the essential elements of good practice suitable for the identified pilot project?	The Rimini approach to tourism means a new paradigm that on one hand implements new concepts for reaching a competitive advantage, and very sophisticated tools that result in the care for nature (as well as its use for tourism), and on the other hand, lower costs of operation – for example energy savings. The model could be very useful for Inner–Karst region because the technologies and approaches are very much worked out in Rimini. Therefore, it would be necessary for Inner–Karst to distinguish what is useful for the region and copy and adapt these approaches and technologies. Specialised sustainable tourism is one of the big opportunities for Inner–Karst region. This can be a good example of practical directions that consultants in the pilot project related to consulting could offer.

7.2 PILOT PROJECT N.1 "INFORMATION AND CONSULTING SERVICE IN THE AREA OF ECO-INNOVATION"

7.2.1. GENERAL DESCRIPTION

- **ACTION'S TITLE**

Information and consulting service in the area of eco-innovation

- **OPERATIONAL OBJECTIVES**

In the frame of the existing support institutions, establishing the information and consulting service in the following areas:
- Access to eco-innovation funding
- Commercialization of eco-innovation
- Promotion of eco-innovation
- Access to sources of knowledge (bonding with centres of knowledge)
- Networking (directing the companies and individuals on the relevant addresses in the case of more in-depth needs)

- **SECTOR OR SUBSECTOR INVOLVED**

All sectors, with special attention to the sectors that have an important eco-innovation potential in the region (wood processing, metal processing, sustainable tourism …).

- **ECO-INNOVATION TECHNOLOGY INVOLVED**

All technologies used in the mentioned sectors.

- **ACTORS/STAKEHOLDERS INVOLVED OR TO BE INVOLVED**

The institution implementing the pilot project in the initial phase would be the Regional Development Agency of Inner- Karst (RDA Inner-Karst). However, when the initial phase was finished and the funds for a normal operation were ensured, it would be more efficient if this service was implemented by some other institution (perhaps the Regional Chamber of Commerce or some related organisation).

- **TARGET GROUPS**

There are two main target groups:

- Companies with eco-innovation potential
- Individual innovators with eco-innovation potential

- **ACTION'S GENERAL DESCRIPTION / FORESEEN PILOT PROJECT**

In order to be able to raise the level of eco-innovation in the region, the companies and individual innovators need information and consulting support. Such support should be direct and individual. Therefore, it is necessary to establish the information and consulting service in the following areas, within the frame of the existing support institutions:

- Access to eco-innovation funding
- Commercialization of eco-innovation
- Promotion of eco-innovation
- Access to sources of knowledge (bonding with centres of knowledge)
- Networking (directing the companies and individuals on the relevant addresses in the case of more in-depth needs)

7.2.2. ACTUATION AND MANAGEMENT MODALITY

- **PARTNERSHIP COMPETENCES AND THEIR ORGANIZATIONAL MODALITIES**

In the initial phase, the RDA Inner–Karst could take over the implementation of the pilot project Information and consulting service in the area of eco-innovation. For a little more than half a year, some funds have also been available within the frame of the MEDOSSIC project, which could cover the implementation. In this time the project could be established in such a way that it would operate normally and without any major difficulties. However, when the initial phase was finished and the funds for a normal operation were ensured, it would be more efficient that this service was implemented by some other institution (perhaps the Regional Chamber of Commerce or some related organisation).

It is important that there will be support from the side of regional authorities as well as from local authorities where the service will take place.

- **MANAGEMENT SUBJECT AND/OR MODEL**

Accordingly, the service will be to estimate the need to take a few hours weekly (from 4-6 hours) off work. In accordance with these needs, it is most efficient if it is implemented in the frame of the already existing support environment – preferably a public body.

It is important that the personnel who perform the services have enough knowledge to perform the service with adequate quality.

The management of the service will have to be incorporated in the model of organisation that will perform it. At the same time the measurable aims and indicators have to be set (number of passed information, network contacts, successful commercialisations etc.).

- **ACTUATION PROCEDURES**

The actuation procedures are presented in the table:

Phase	Time frame (months)	Basic actions	Critical elements
Initial	0 - 7	- scanning of needs - infrastructure installation - training of personnel - promotion of service - initial implementing of service	- recognition threshold in target groups - appropriate knowledge of personnel implementing the service
Normal operation	8 -	- normal implementing of service - monitoring and improving the service	- sources of funding for the operation

- **INTEGRATION AND COHERENCE WITH OTHER PLANNING TOOLS FOR THE LOCAL DEVELOPMENT IN THE REFERENCE TERRITORY**

Inner-Karst region lacks support institutions and support tools (however, access to all national institutions and tools is available). In this respect the pilot project will be one of the few support tools intended specifically for this region.

The pilot project will mostly interact with the contest in innovation organised by the regional Chamber of Commerce. As estimated, this will be a fruitful cooperation with innovators, who will be identified and rewarded at the contest and later supported with the information and consulting service for raising funds, commercialisation, protection of intellectual properties, networking etc.

7.2.3. PILOT STRUCTURE'S ACTIVITIES

I. Initial Phase (0-7 months)

I.I. Scanning of needs of target groups
- identification of target entities
- selection of representative entities
- preparation of scanning tool (questionnaire)
- contact with the selected entities and scanning
- infrastructure installation

I.II. Training of personnel
- selection of personnel (among existing ones) that will perform the service
- definition of content of training
- selection of organisations that have the relevant knowledge
- organisation of knowledge transfer
- implementation of training

I.III. Promotion of service
- preparing the list of target recipients
- preparing the promotion plan
- implementing the promotion plan using various media and direct contact tools

II. Normal operation (8- months)
- identification of sustainable sources of funding
- identification of implementing organisations
- training of personnel
- normal implementation of the service

7.2.4 FINANCIAL PLAN

- **FINANCING: FINANCIAL BUDGET PLAN**

Planned costs in EUR for the initial phase:

	Unit	Planned units	Planned cost per unit	Total cost
Staff costs	hours	400	16	6,400
External expertise	expertise	6	1,000	6,000
Travel costs	travel	5	50	250
Promotion	action	1	700	700
Overhead	hours	100	14	1,350
Durable goods				-
TOTAL				**14,700**

The project partner, the RDA Inner-Karst, has planned 33,800 EUR of funds in total for the realisation of all actions related to the establishment of pilot structures. However, only a part of these funds can be allocated to this particular pilot project. Of the total sum planned, 12,000 EUR are planned for staff costs and 13,000 for external expertise; these are costs that are related closely to this particular pilot project.

- **FURTHER POSSIBLE SOURCES OF FINANCING BESIDES THE MEDOSSIC PROJECT?**

Some costs, namely overhead and small material costs might be covered by the stakeholders – the RDA Inner-Karst and the Regional Chamber of Commerce; there might be a chance to obtain some funds also from the Budgets of regional and local authorities, related to the support of competitiveness and innovation. However, in the initial phase it is not realistic to expect some major external funding.

- **ECONOMIC AND FINANCIAL SUSTAINABILITY**

Surely the future of the project is very much dependent on the financing sources. External funds could be acquired from the following potential sources:

- PAEFI (JAPTI): financing subjects of the innovative environment
- Budgets of regional and local authorities related to the support of competitiveness and innovation
- EU horizontal projects

7.2.5.THE MONITORING AND THE EVALUATION

IMPACT INDICATORS

Global objective	Impact indicator/indicators	*Actual value, if identifiable*	Expected value
Raising the eco-innovative culture in the region	% of population in the region directly addressed by the action or informed about the action		15% in one year

RESULT INDICATORS

Global objective	Result indicator/indicators	*Actual value, if identifiable*	Expected value
Raising the number of eco-innovations	Number of patents		12 national per year in three years
Raising the number of successfully commercialised eco-innovations	Number of successfully commercialised eco-innovations		5 per year in three years

REALIZATION INDICATORS

Operational objectives	Realization indicator/indicators	*Actual value, if identifiable*	Expected value
Established information and consulting service	Normal operation of service	Non existent	Fully operational in 7 months
Massive information on eco-innovation (mail, newsletters)	Number of sent mails and newsletters to different addresses per year	0	2,000
Access to information and consulting on eco-innovation in the region	Amount of passed information and consulting on eco-innovation in the region	0	200 individual sessions

7.3 PILOT PROJECT N.2 "NETWORKING OF KEY STAKEHOLDERS"

7.3.1. GENERAL DESCRIPTION

- **ACTION'S TITLE**

Networking of key stakeholders

- **OPERATIONAL OBJECTIVES**

Raising the level of networking among key stakeholders, namely:
- Networking with the MEDOSSIC partner, the RDA Inner-Karst, and other support organisations in the region
- Networking between companies (horizontal in the sector, cross sectoral and vertical in the value added chain)
- Networking between the industry and the centres of knowledge
- Transfer of knowledge from other regions

- **SECTOR OR SUBSECTOR INVOLVED**

All sectors, with special attention to the sectors that have an important eco-innovation potential in the region (wood processing, metal processing, sustainable tourism …).

- **ECO-INNOVATION TECHNOLOGY INVOLVED**

All technologies used in the mentioned sectors.

- **ACTORS/STAKEHOLDERS INVOLVED OR TO BE INVOLVED**

The coordinating institution of the pilot project would be the Regional Development Agency Inner-Karst (RDA Inner-Karst). However, in-line with the nature of the pilot project a wide network of organisations must be included, among others:

- Ministrstvo za visoko šostvo, znanost in tehnologijo – Ministry for Higher Education, Science and Technology (MHEST)
- Ministrstvo za okolje in prostor – Ministry of the Environment and Spatial Planning (MESP)
- Ministrstvo za gospodarstvo – Ministry of the Economy
- Javna agencija RS za podjetništvo in tuje investicije – Public Agency for Entrepreneurship and Foreign Investment (PAEFI - JAPTI)
- Tehnološka agencija Slovenije – Slovenian Technology Agency (STA - TIA)
- Slovenian Chamber of Commerce (GZS), Regional Chamber Postojna
- Notranjska Ecological Center (NEC)
- Council for Innovation
- Regional Craft and Entrepreneurial Chambers Cerknica, Ilirska Bistrica, Postojna
- Business Incubator within the Business Zone of Veliki Otok
- Enterprises

- Individual innovators
- Universities
- Public and private institutes

- **TARGET GROUPS**

There are two main target groups:

1.) First stage target group – support environment organisations
2.) Second stage target group - companies with eco-innovation potential and individual innovators with eco-innovation potential

- **ACTION'S GENERAL DESCRIPTION / PILOT PROJECT PLANNED**

Effective regional support to the companies with eco-innovation potential and individual innovators with eco-innovation potential, preconditioned by an effective networking of support environment, networking between companies (horizontal in the sector, cross-sectoral and vertical in the value added chain), networking between the industry and the centres of knowledge and the transfer of knowledge from other regions.

For effective networking is necessary to:

- Prepare a database of relevant contacts "who is who"
- organise meeting between key stakeholders
- prepare joint actions with several relevant stakeholders

7.3.2. ACTUATION AND MANAGEMENT MODALITY

- **PARTNERSHIP COMPETENCES AND THEIR ORGANIZATIONAL MODALITIES**

In the initial phase the RDA Inner–Karst could take over the coordination of the pilot project Networking of key stakeholders. For little more than half a year some funds have also been available within the frame of the MEDOSSIC project, which could cover the implementation. In this time the project could be established in such a way that it would operate normally and without any major difficulties. When the initial phase was finished and the funds for normal operation were ensured, it would be necessary to acquire funds for further operation; however, the funds needed to maintain the effective networking will not be very high.

- **MANAGEMENT SUBJECT AND/OR MODEL**

For a successful implementation of the pilot project, some of the management activities in the form of organisation of various actions and keeping the focus on the pilot project aim will be needed on one hand, while on the other hand it will be necessary to pay special attention to maintaining good relations with key stakeholders, which include various informal actions and behaviour approaches.

The management of the service will have to be incorporated in the model of the RDA Inner-Karst. In the same time the measurable aims and indicators have to be set (number of network contacts, number of events etc.).

- **ACTUATION PROCEDURES**

The actuation procedures are presented in the table:

Phase	Time frame (months)	Basic actions	Critical elements
Initial	0 - 7	- prepare a database of relevant contacts "who is who" - organize meetings between key stakeholders - prepare joint actions with several relevant stakeholders	- acquiring trust from key stakeholders
Normal operation	8 -	- normal implementation of networking - monitoring and improving the service	- sources of funding for the operation

- **INTEGRATION AND COHERENCE WITH OTHER PLANNING TOOLS FOR THE LOCAL DEVELOPMENT IN THE REFERENCE TERRITORY**

Inner-Karst region lacks support institutions and support tools (however, access to all national institutions and tools is available). In this respect the pilot project will be one of the few support tools intended specifically for this region.

The pilot project will mostly interact with the pilot project of information and consulting service in the area of eco-innovation. The companies and individuals will contact the information and consulting service, and if the service consultant is not able to fulfil the needs of the company or the individual, they will be directed to relevant contacts through established network channels.

7.3.3. PILOT STRUCTURE'S ACTIVITIES

I. Initial Phase (0-7 months)
I.I. Preparation of a database of relevant contacts "who is who"
- Preparation of the database concept
- Systematically scanning the key stakeholders' environment – secondary research

- Systematically scanning the key stakeholders' environment – primary research for selected stakeholders
- Preparation of a database and its distribution

I.II. Organisation of meetings between key stakeholders
- Preparation of meeting concepts
- Organisation of horizontal, vertical and trans-sectoral meetings with the aim of getting to know each other, exchange good practices and prepare joint action plans.

I.III. Preparation of joint actions with several relevant stakeholders
- Preparation of the pairing concept
- Organisation of common actions in the following areas:
    - Regional development agency and offices of technology transfer, needs of companies associated with the knowledge of researchers
    - Regional development agency, incubators and technology transfer offices to provide technical assistance to potential entrepreneurs from the research sphere
    - Pairing companies with the research sphere
    - Other kind of connections

II. Normal operation (8- months)
- Identification of sustainable sources of funding
- Normal implementation of networking
- Monitoring and improving networking

7.3.4 FINANCIAL PLAN

- **FINANCING: FINANCIAL BUDGET PLAN**

Planned costs in EUR for the initial phase:

Total cost	Unit	Planned units	Planned cost per unit	Total cost
Staff costs	hours	250	16	4,000
External expertise	expertise	2	500	1,000
Travel costs	travel	3	50	150
Promotion	action	1	500	500
Overhead	hours	50	14	675
Durable goods				-
TOTAL				**6,325**

The project partner, the RDA Inner-Karst has planned 33,800 EUR of funds in total for the realisation of all actions related to the establishment of pilot structures. However, only part of these funds can be allocated to this particular pilot project. Of the total sum planned, 12,000 EUR are planned for staff costs and 13,000 for external expertise; these are costs that are closely related to this particular pilot project.

- **FURTHER POSSIBLE SOURCES OF FINANCING BESIDES THE MEDOSSIC PROJECT?**

Some costs, namely overhead and small material costs might be covered by the RDA Inner-Karst; there might be a chance to obtain some funds also from the Budgets of regional and local authorities related to the support of competitiveness and innovation. However, in the initial phase it is not realistic to expect major external funding.

- **ECONOMIC AND FINANCIAL SUSTAINABILITY**

Surely the future of the project is very much dependent on the financing sources. External funds could be acquired from the following potential sources:

- PAEFI (JAPTI): financing subjects of the innovative environment
- Budgets of regional and local authorities related to the support of competitiveness and innovation
- EU horizontal projects

7.3.5. THE MONITORING AND THE EVALUATION

IMPACT INDICATORS

Global objective	Impact indicator/indicators	*Actual value, if identifiable*	Expected value
Raising the eco-innovative culture in the region	% of population in the region directly addressed by the action or informed about the action		15% in one year

RESULT INDICATORS

Global objective	Result indicator/indicators	*Actual value, if identifiable*	Expected value
Raising the number of eco-innovations	Number of patents		12 national per year in three years
Raising the number of successfully commercialised eco-innovations	Number of successfully commercialised eco-innovations		5 per year in three years

REALIZATION INDICATORS

Operational objectives	Realization indicator/indicators	*Actual value, if identifiable*	Expected value
Establishing and distributing the "Who is who database"	Established and distributed "Who is who database"	not	Established in 3 months
Organisation of events / meetings	Number of organised events		6 per year
Realisation of direct networking intermediation	Realised direct networking intermediation		50 per year

7.4 PILOT PROJECT N.3 "ECO-INNOVATION GOOD PRACTICE WEB PORTAL"

7.4.1. GENERAL DESCRIPTION

- **ACTION'S TITLE**

Eco-innovation good practice web portal

- **OPERATIONAL OBJECTIVES**

The main objective of the pilot project is to raise the level of eco-innovations in the region with the help of an efficient exchange of good practices. Operational objectives are the following:

- Identify the best possible web portal model for good practice exchange
- Installation of the web portal
- Effective managing of the portal, which will be reflected in the raising number of eco-innovation outputs in the region

- **SECTOR OR SUBSECTOR INVOLVED**

All sectors, with special attention to the sectors that have an important eco-innovation potential in the region (wood processing, metal processing, sustainable tourism …).

- **ECO-INNOVATION TECHNOLOGY INVOLVED**

All technologies used in the mentioned sectors.

- **ACTORS/STAKEHOLDERS INVOLVED OR TO BE INVOLVED**

The coordinating institution of the pilot project will be the Regional Development Agency Inner-Karst (RDA Inner-Karst). However, the technical implementation will be done by external experts.

- **TARGET GROUPS**

There are two main target groups:

- companies with eco-innovation potential
- individual innovators with eco-innovation potential

- **ACTION'S GENERAL DESCRIPTION / PILOT PROJECT PLANNED**

Many tools and approaches for eco-innovation are already installed within other Slovenian regions, other MEDOSSIC regions etc. However, the mobility of ideas is relatively weak. The most efficient way to introduce new eco-innovation tools and approaches is to use tools and approaches thad had already been proven successful elsewhere. Therefore, it is

important to establish a communication channel to present such tools and approaches to the target groups. One of the most efficient ways to do that is through the web portal for the exchange of good practices.

7.4.2. ACTUATION AND MANAGEMENT MODALITY

- **PARTNERSHIP COMPETENCES AND THEIR ORGANIZATIONAL MODALITIES**

In the initial phase, the RDA Inner-Karst could take over the implementation of the pilot project. For a little more than half a year some funds have also been available in the frame of the MEDOSSIC project, which could cover the implementation. In this time the project could be established in such a way that it would operate normally, without any major difficulties. When the initial phase was finished and the funds for normal operation were ensured, it would be necessary to acquire the funds for further operation; however, the funds needed to maintain the portal will not be very high.

- **MANAGEMENT SUBJECT AND/OR MODEL**

In general, there will be two very different kinds of management within the project, one dealing with the establishment of the the portal (also from the technical point of view) and the other filling in the content of the portal and managing the normal operation.

This pilot project demands a great deal of external, mostly technical expertise. In this respect it is very important that the management of the project is very focused on ensuring that the project aims and the quality of the work done meet in the work of external experts.

For filling in the content of the portal and managing the normal operation, good links with the stakeholders who will provide the content of the portal will be crucial.

- **ACTUATION PROCEDURES**

The actuation procedures are presented in the table:

Phase	Time frame (months)	Basic actions	Critical elements
Initial	0 - 7	- Identify the best possible web portal model for good practice exchange - Installation of the web portal	- Technical implementation - Promotion of the web portal
Normal operation	8 -	- Normal operation of the portal - Monitoring and improving the service	- Sources of funding for the operation - Good links with the stakeholders that will

			provide the content of the portal

- **INTEGRATION AND COHERENCE WITH OTHER PLANNING TOOLS FOR THE LOCAL DEVELOPMENT IN THE REFERENCE TERRITORY**

Inner–Karst region lacks support institutions and support tools (however, access to all national institutions and tools is available). In this respect the pilot project will be one of the few support tools intended specifically for this region.

The pilot project will mostly interact with pilot projects of information and consulting service in the area of eco-innovation and with pilot project networking among key stakeholders. The companies and individuals will contact the information and consulting service, where the consultants will be able to recognise the good practices that could be published. Good practices that could be published will also be recognised among the networking contacts.

7.4.3. PILOT STRUCTURE'S ACTIVITIES

I. Initial Phase (0-7 months)
I.I. identifying the best possible web portal model for good practice exchange
- Preparation of needs and basic concepts
- Identification of related web portals (for example "Eco Camara")
- Benchmarking and selection of best approaches

I.II. Installation of the web portal
- Selection of external experts
- Technical implementation
- Preparation of the initial content of the portal

II. Normal operation (8- months)
- Filling in the content of the portal with its additional functions (such as newsletter, forum etc.)
- Monitoring and improving the service

7.4.4 FINANCIAL PLAN

- **FINANCING: FINANCIAL BUDGET PLAN**

Planned costs in EUR:

Total cost	Unit	Planned units	Planned cost per unit	Total cost
Staff costs	hours	100	16	1,600
External expertise	expertise	2	3.000	6,000

Travel costs	travel	2	50	100
Promotion	action	1	300	300
Overhead	hours	55	14	743
Durable goods		1	4000	4,000
TOTAL				**12,743**

The project partner, the RDA Inner-Karst has planned 33,800 EUR of funds in total for the realisation of all actions related to the establishment of pilot structures. However, only part of these funds can be allocated to this particular pilot project. Of the total sum planned, 13,000 EUR are planned for external expertise and 4,000 for durable goods; these are the costs that are closely related to this particular pilot project.

- **FURTHER POSSIBLE SOURCES OF FINANCING BESIDES THE MEDOSSIC PROJECT?**

Some costs, namely overhead and small material costs might be covered by the RDA Inner-Karst; there might be a chance to obtain some funds also from the Budgets of regional and local authorities related to the support of competitiveness and innovation. However, in the initial phase it is not realistic to expect major external funding.

- **ECONOMIC AND FINANCIAL SUSTAINABILITY**

Surely the future of the project is very much dependent on the financing sources. External funds could be acquired from the following potential sources:

- PAEFI (JAPTI): financing subjects of the innovative environment
- Budgets of regional and local authorities related to the support of competitiveness and innovation
- EU horizontal projects

7.4.5.THE MONITORING AND THE EVALUATION

IMPACT INDICATORS

Global objective	Impact indicator/indicators	*Actual value, if identifiable*	Expected value
Raising the eco-innovative culture in the region	% of population in the region directly addressed by the action or informed about the action		15% in one year

RESULT INDICATORS

Global objective	Result indicator/indicators	*Actual value, if identifiable*	Expected value

Raising the number of eco-innovations	Number of patents		12 national per year in three years
Raising the number of successfully commercialised eco-innovations	Number of successfully commercialised eco-innovations		5 per year in three years

REALIZATION INDICATORS

Operational objectives	Realization indicator/indicators	*Actual value, if identifiable*	Expected value
Visits on the portal	Number of visits on the portal	0	5,000 yearly
Registered members on the portal	Number of registered members on the portal	0	200 in one year
Actual transfer of good practices, originating from the portal	Number of actual transfers of good practices, originating from the portal	0	15 in a year

PART 8.
SYNOPTIC SYNTHESIS FRAMEWORK

8. SYNOPTIC SYNTHESIS FRAMEWORK

It is proposed to insert a common synoptic synthesis framework highlighting the interrelations among objectives, strategic lines, sectors and/or technologies and realized actions, so that each SOP can underline the value and the finalities of the single pilot project of the various partners, embedded in the wider context of MEDOSSIC project.
It can concretely be defined only after the various SOP have been drawn up by the partners of the project.
For example it could be structured as follows:

Matrix 4 – SYNOPTIC SYNTHESIS FRAMEWORK

Global objectives	Sector/sub sectors and tecnologies for eco-innova=tions Project Pilot	Sector 1				Sector 2				All sectors			
		Environmental technologies	Organisational Innovation	Product and Service Innovation	Green system innovations	Environmental technologies	Organisational Innovation	Product and Service Innovation	Green system innovations	Environmental technologies	Organisational Innovation	Product and Service Innovation	Green system innovations
Global objective 1 – partners z, *x*, etc.	Project Pilot (title A) – PP Z												
	Project Pilot (title B) – PP X												
	Etc.												
Global objective 2 – partners *x*, *y*, etc.	Project Pilot (title C) – PP X												
	Project Pilot (title B) – PP Y												
	Etc.												
Etc.													

ANNEX

Please insert in the enclosure the minutes of the workshops, a copy of the list of the participants, any materials distributed during workshops, further documentation predisposed to support the participative process, as questionnaires, slides of presentation etc.