DIAMONT: Data Infrastructure for the Alps - Mountain Orientated Network Technology



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After the first half year of project implementation, DIAMONT unfolded considerable activities. The two preparative studies are implemented in time: WP5 – All national analysis on the impact of cultural differences on regional development in the Alps were summarised in a final report which is currently undergoing an internal quality control. WP6 – About 60 experts were asked to give their estimations on future Alpine development in the second round of the Delphi survey. Beyond, the second internal project meeting took place in Bolzano on September 8th and 9th.

Project meeting on September 8th/9th in Bolzano

The second project meeting was generously hosted by the EURAC. The project group took advantage of convening in Bolzano and visited the Archeological Museum which preserves the mummy of "Ötzi", the iceman from the Tisenjoch. But rather than admiring the impressive alpine cultural heritage, the meeting was mainly dedicated to work package 6, the Delphi survey. This inquiry on the main issues of future development in the alpine regions is now in it's central phase. Vincent Briquel, the responsible work package leader, presented the results of the first round of the survey which was answered by more than 60 experts. Vincent refered to a wide scope of answers and a deep heterogenity of information. After fruitful discussions the project group agreed on the structure of the second round question-



DIAMONT project group together with Ruggero Schleicher-Tappeser.

naire, namely the formulation of three theses for each of the eight chosen macro issues (agriculture & forestry, mobility & transport, recreation & tourism, population and society, energy, industry & services, urban & rural settlement, natural & cultural heritage and health & quality of life). After this basically sectoral analysis which was answered by 51 experts, integrative issues

will be deepened by means of the third round, planned for January 2006. The work package will be completed until end of February 2006.

Further, Konstanze Schönthaler presented the initial work steps of work package 7 which started in August. To analyse the main problem fields of alpine development, relevant national and international documents on sustainable regional development and available indicator systems were studied. Stating the existence of a great variety of information and indicator systems, she stressed the urgent need to aggregate and make more use of the available indicators for SOIA, the System of Observation of and Information on the Alps.

Ruggero Schleicher-Tappeser, official responsible for the elaboration of SOIA, also joined the meeting. He reported that the Permanent Secretary of the Alpine Convention has an agreement with the Bavarian Ministry for the Environment to operate a xml-database for SOIA to store available data. The database structure still has to be further developed, but it might also work as a preliminary structure for the DIAMONT database which will be set up by the EURAC in WP8. To coordinate the efforts a meeting was scheduled for December 7th at the Bavarian Ministry for the Environment in Munich. Beyond, an agreement has to be formalized with the EURAC concerning the use of the SOIA-data in WP 8.

Development trends and relevant issues in the Alpine Space: a comparison between the results of an EU-study and the estimations of the Delphi-experts in the DIAMONT project

In August 2005 a final draft of the "Prospective Study on Sustainable Territorial Development in the Alpine Space" was released by the Alpine Space Programme (more information at http://www.alpinespace.org). Six independent experts from each of the Alpine countries were assigned to identify substantial key issues and

strategic key players for a transnational cooperation in the Alpine Space after 2006. Of special interest for DIAMONT project is the included analysis of the most relevant Alpine development trends headlined in studies, reports or research projects. In total, not less than 34 trends have been analysed and ranked, according to their future impact on territorial development. These roughly described trends can be compared with the conclusions drawn by the experts involved in DIAMONT Delphi study (WP6).

Analogies between the two studies

According to the Prospective Study one major concern of the future, for example will be the loss of natural habitats and biodiversity through agricultural practices, uniformity of landscapes, urban sprawl, unrestrained tourism and infrastructure construction. For their part, the DIAMONT experts indicated that maintaining biodiversity needs a spatial mosaic of different land use forms: Market orientated agriculture should be performed next to more extensive cultivation forms and protected or even wildlife areas, mass tourism should co-exist with natural recreation areas. Another constant trend is the growing traffic along the main transit



Matteo Pippa (left) and Vincent Briquel (right) analysed the results of the Delphi survey on the future development of Alpine regions.

routes. Whereas the freight volume and the individual transport will increase, the relevance of public transport will remain comaratively low. This trend was also highlighted by the DIAMONT experts. They considered that in most Alpine areas public transport is still little in line with the people expectations for easy access to workplaces, current services or recreation facilities. Only financial measures, regulative infrastructure and considerably higher petrol costs will advance the attractiveness of public transport in the future. Overaging and the decline of the working age population are general trends within Europe. Due to the depopulation of unfavourable regions, however, the core alpine areas are much more affected. The DIAMONT experts agreed that stopping the emigration of younger people is a crucial task for the future development. Thus, good

education has to be guaranteed and new employment opportunities in peripheral areas have to be developed. As a last example, the tourism sector is expected to be affected by growing competition, concentration and a higher demand for better quality facilities. Some DIAMONT experts estimated that competition will grow especially amongst mass winter tourism centres affected by climate change effects. The sector needs to adapt to the current changes in tourist demands and thus to diversify the soft and high quality tourism facilities.

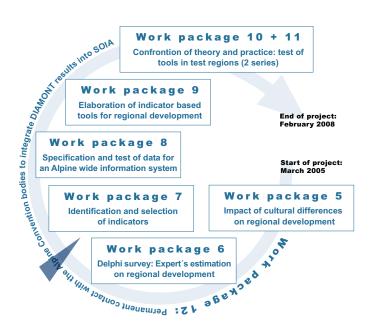
Details from the Delphi survey

In fact, in most cases, the DIAMONT Delphi survey resulted in a specification of the most important issues in line with the trends identified by the prospective study. The second round of the survey consisted in gathering expert estimations on theses headlining possible consequences of on-going trends. Some of them were broadly accepted by the 50 experts involved in the second round, others were discussed controversial. For example, most experts rejected a thesis assuming that landscape amenities are an important factor to attract new economic activities, like the IT-sector. Nevertheless, some respondents rated the innovative potential of the heterogenous social groups in the Alpine Space as considerably high. Yet others could not detect a link between social diversity and innovations as it first depends on the enterprising spirit of individuals. They feared that the different groups may rather hinder each other (interest conflicts) than sharing ideas. The presence of powerful metropolises outside the Alps was not necessarily seen as a threat for a balanced spatial development within the Alps. In contrast, the declining importance of traditional urban local centres may cause problems. Quality of life in peripheral areas is constricted due to the relocation of public services or the absence of reliable health services. In urban areas, however, the easy access to employment facilities, entertainment services and recreation areas outweighs high accommodation cost or air pollution. With respect to cultural heritage, some experts feared a 'musealisation' of local traditions, whereas others expected its valuation and renewal, a development where actors support each other and thus develop new cultural identities orientated less to the locality, but rather to other criteria (mountain sports, nature, etc).

The overall task of the DIAMONT project is to observe these trends and thus to allow the assessment of the sustainability of the future development trends. Basing on the results of the Delphi survey, suitable development indicators will be defined and different instruments evaluated in chosen test-regions. With it, the project will add a brick for building up a sustainable future in the Alpine Space.

DIAMONT - a survey after the first half year

After the first half year DIAMONT now approaches its central phase. The first two studies are almost finalised: The report on the impact of cultural differences on regional development in the Alps (WP5) is internally revised at the moment. It will be released at the end of the year. The report may influence the Working Group of the Alpine Convention on "Population and Culture" and will probably be published in the "Alpine Signals". In February 2006, the expert estimations given in the Delphi survey (WP6) will result in a broad overview on the relevant issues which mainly influence current and future regional development in the Alpine Space. Considering all these findings, in the following work steps the project team will start defining indicators suitable to describe these processes (WP7). Almost contemporaneously the search for alpine wide available data will start. While all this research is going on we keep closely in touch with the Permanent Secretary of the Alpine Convention. On November 29th Ulrike Tappeiner, scientific leader of the project, will present the current results and further DIAMONT objectives in the framework of a meeting of the SOIA Working Group in Bolzano (Italy).



Current time schedule of DIAMONT project

News relevant for the Alpine Space

December 11th 2005: International Mountain Day

From 2003 onwards the UN General Assembly designated December 11th as "International Mountain Day" to create awareness of the importance of mountains to mankind. Every year, a different theme is chosen. In 2005 the campaign deals with "Sustainable Tourism for Poverty Alleviation in Mountain Areas". (More information: http://www.fao.org/mnts)

Transport across the Alps: International Conference on December $1^{\rm st}$ to $3^{\rm rd}$ 2005 in Lucerne, Switzerland

The conference addresses central questions regarding transport in the Alpine region and gives information on current trends and research results. Furthermore an excursion to the construction site Amsteg of the Gotthard Base Tunnel is planned. (More information: http://www.monitraf.org)

CIPRA's Competition: € 160.000 for sustainable projects

The awards for the "Future in the Alps" Competition were presented at CIPRA's annual conference in Brig/CH on September 22nd 2005. The main prizes in the six competition categories (regional value added; governance capacity; protected areas; mobility; new forms of decision making; policies and instruments) were endowed with prize money of €25,000 each. CIPRA also awarded two special prizes worth €5,000 each. The competition was aimed at publishing and networking innovative schemes implementing the overall concept of sustainability. Three prizes went to projects from Austria (Salzburg, Tyrol, Vorarlberg), two to Italian projects (Friuli, South Tyrol), with one prize each for projects from Germany (Allgäu), Slovenia and Switzerland (Grisons). (More information: http://competition.cipra.org/de/wettbewerb) Further, the participants of the conference adopted a resolution concerning the responsibility of Alpine cities for the future of the Alps. (More information: http://www.cipra.org)

Via Alpina web page with new features

Via Alpina launched a web page with new features in the trail section: Interactive maps of different scales now provide detailed practical information on each of the 341 long-distance hiking trails. (More information: http://www.via-alpina.org)

MIREN: Network on invasive plants in mountain regions

The new global research network MIREN (Mountain Invasion Research Network) was founded this summer. It focuses on invasive plants in mountain regions, particularly from the aspect of global change. The network plans to compile and operate a global database on the patterns, processes and repercussions of invasive plants in mountain regions. It is co-ordinated by the Geobotanical Institute at the Swiss Federal Institute of Technology (ETH) in Zurich and includes members from six mountain regions of the world. (More information: http://www.miren.ethz.ch)

Open Science Conference: Global Change in Mountain Regions (October 2nd-6th in Perth, Scotland)

The conference which was open to all researchers concerned with global change patterns in mountain regions was convoked to prepare an integrative research strategy for mountain regions that will effectively address the challenges of the 21st Century. (More information and draft version of the research strategy: http://www.mountain.conf.uhi.ac.uk)

Isamap: Project on the harmonisation of regional data sources

The new INTERREG III B CADSES project seeks to build up a cross-border infrastructure for geodata of Carinthia, the Autonomous Region Region Friuli-Venezia Giulia and Slovenia as a basis for regional planning, natural hazards protection and regional policy decisions.

(More information: http://www.isamap.info)

Indicators for the alpine space – much work has already been done

Results of the international Working Group on Environmental Objectives and Indicators (WG-EOI) in the frame of the Alpine Convention: Synergy effects for DIAMONT

By Dr. Benno Hain, Federal Environmental Agency, Climate Protection Unit, Wörlitzer Platz 1, 06844 Dessau, Germany

The frame of the Alpine Convention

The issues and areas of the Alpine Convention and its protocols are diverse and cover a wide range of environmental and socio-economic targets. Many of these areas and targets are interrelated and the basis for implementation measures. The need to describe and assess the recent development and these implementation efforts in the alpine arc with the help of indicators was stated by the Alpine Conference in 2002. A mandate was given to a working group (WG) to elaborate and suggest a system of indicators and a conceptual frame for an Alpine Status Report. The final report of the WG was adopted by the ministers of the alpine states in 2004. They confirmed that the suggested indicator system should be the basis for future work and the first alpine status report which has to be elaborated by the Permanent Secretariat of the Convention until the end of 2006.

Results of the WG-EOI

The WG-EOI identified 23 important issues of concern of the Alpine Convention which may also be relevant for regional development. These issues are suited to form a back bone of an Alpine Status Report. The conceptual recommendations of the WG-EOI are strongly oriented on and compatible with the actual European reporting guidelines (of EEA and others) and indicator work. In total 95 indicators were suggested starting with environmental issues (i.e. groundwater contamination, traffic emissions) but also including the main relevant land uses (agriculture, forestry, tourism) and socio-economic aspects (i.e. population density, unemployment rate). In some cases the data basis for issues and indicators was weak. Therefore the WG-EOI suggested either to describe issues on a qualitative basis or to elaborate case studies if data are available only for selected areas

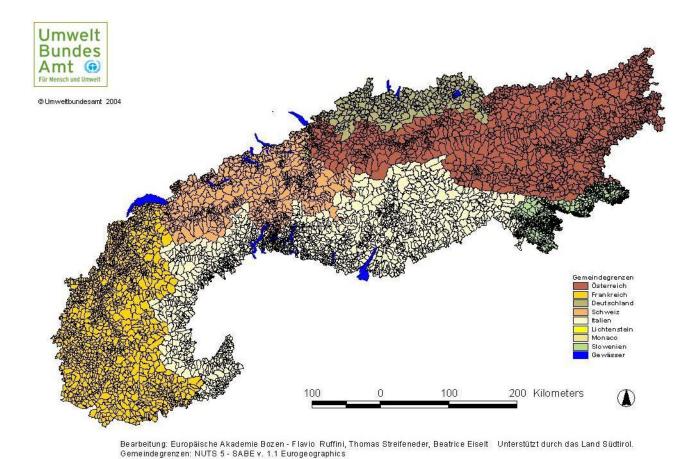


Fig 1: Result of the Working Group on Environmental Objectives and Indicators (WG-EOI): Map of the communities belonging to the Alpine Convention. Basis for the spatial and regional representation of indicators over the alpine arc.

or states. On this basis the WG-EOI performed prototype chapters for 13 issues of the Alpine Status Report including maps (Fig.1). All information on indicators and data was documented in indicator and data fact sheets according to metadata standards.

Links between the WG-EOI and DIAMONT

Similar to the task of the WG-EOI, the DIAMONT project has the objective to support the common observation and information system for the Alps (SOIA) by defining indicators and possible data sources. This task needs to be methodologically oriented close to the decisions of the Alpine Conference concerning its indicator system and the Alpine Status Report. This has already been realized since the proposal of DIAMONT refers directly to the work and results of the WG-EOI.

The political framework of the Alpine Convention is a basic reference for all alpine wide projects which touches its targets. Therefore DIAMONT should take the objectives of the Alpine Convention also into account in its methodological work. The approach of the WG-EOI provides an already international accepted method for integration. It is a pragmatic approach where the relation to issues of the protocols, the availability of data and existing indicators determined the development and structure of thematic issues. DIAMONT has also the objective and challenge to improve the use of available methods and of existing data sources for spatial planning and sustainable regional development. Therefore this project will step further in adding new thematic aspects and integrative views to the work of the WG-EOI.

Experiences with interregional and international data exchange, data harmonization and indicators

One experience of the WG-EOI was that a lot of hurdles have to be taken to overcome the problems of not harmonized data sources and barriers in data communication between the member states. Nevertheless the results of the WG-EOI show that these problems can be managed to some extent with a reasonable effort.

It turned out that the crucial basis for a successful development and implementation of concepts and methods for reporting and indicators is a sound and well coordinated structure. Important is a transparent communication between relevant institutions and stakeholders at all steps of a project and the development of a common understanding and of standards. DIAMONT has the opportunity to use the results of the WG-EOI as starting point for the improvement of regional development in the Alps.

Download

The report of the WG "Die Veränderung des Lebensraumes Alpen dokumentieren" adopted by the Alpine Conference can be downloaded in German, French, Slovenian and Italian at http://www.umweltbundesamt. de/uba-info-daten/daten/alpen/alpen-downloads.htm

diamont calendar

10.-11.03.2006: Project meeting in Ljubljana, Slovenia.

December 2005 - January 2006: Third round of the Delphi survey (WP 6).

07.12.2005: Database meeting with the Bavarian Ministry for the Environment in Munich.

29.11.2005: Presentation of DIAMONT within the framework of a meeting of the Working Group on SOIA in Bolzano

23.11.2005: Internal project meeting to harmonise the work steps planned for work packages 6 to 9 in Munich.

15.11.2005: Deadline for the 2nd progress report to the Managing Authority

08./09.09.2005: Second DIAMONT project meeting in Bozen, Italy, organised by the EURAC.

web page updates

The DIAMONT web page provides information on the project structure, the partner organisations, the time schedule and the status of the respective work packages. Currently, an internal discussion forum on the DIAMONT glossary was added and a download section for documents on sustainable regional development installed.

http://diamont.uibk.ac.at

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