



Alps Bio Cluster
Biotech and Medtech in Alpine Space

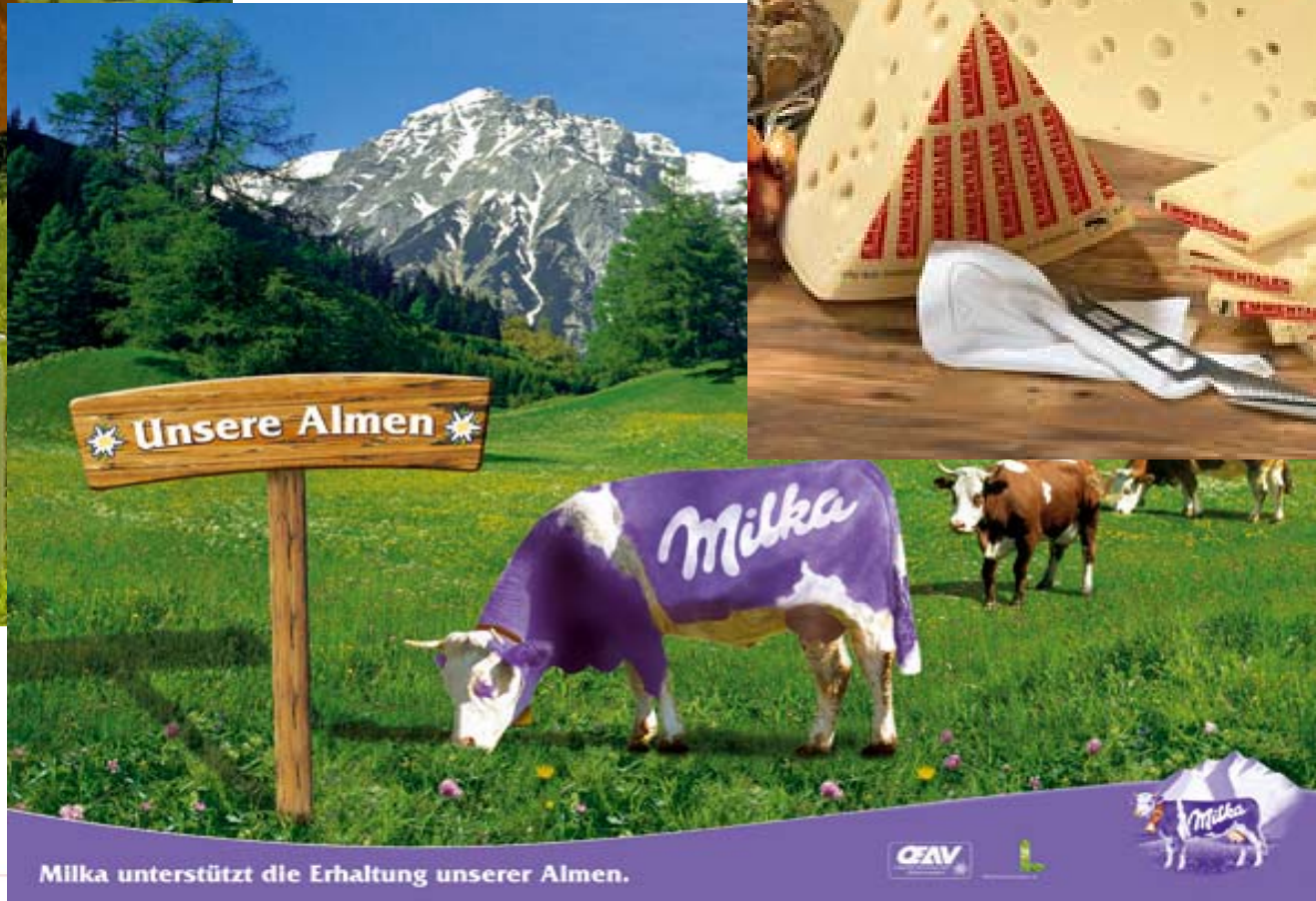
Alps Bio Cluster
Biotech and **Medtech** in the Alpine Space (2008-2011)
www.alpsbiocluster.eu

Alpine Space programme
European territorial cooperation 2007 - 2013

Peter Schröder, Helmholtz-Zentrum München, FRG





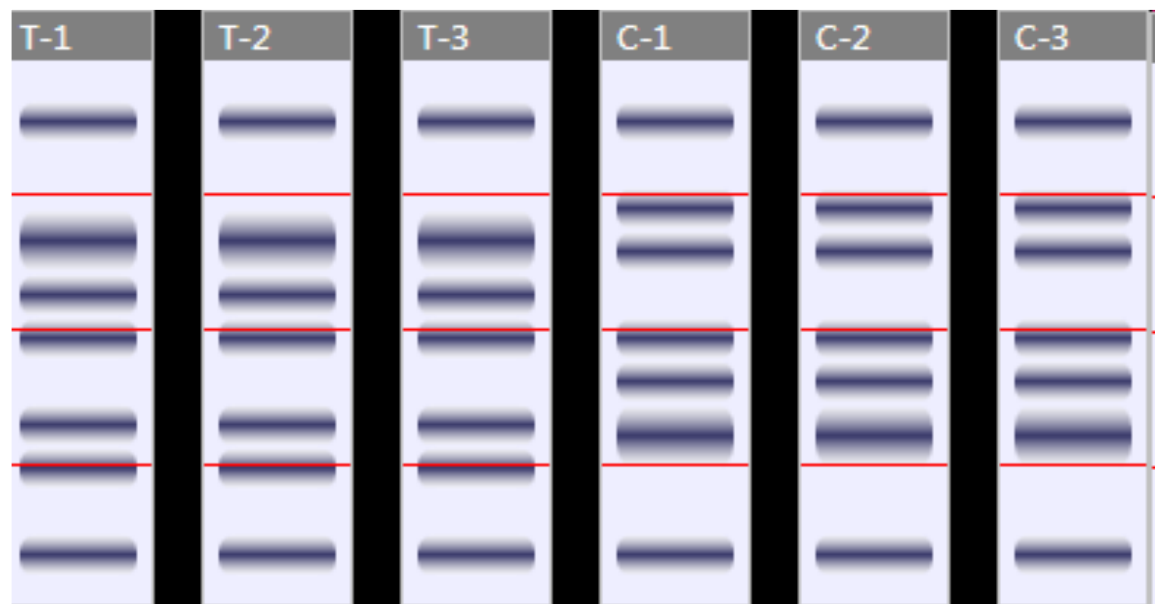
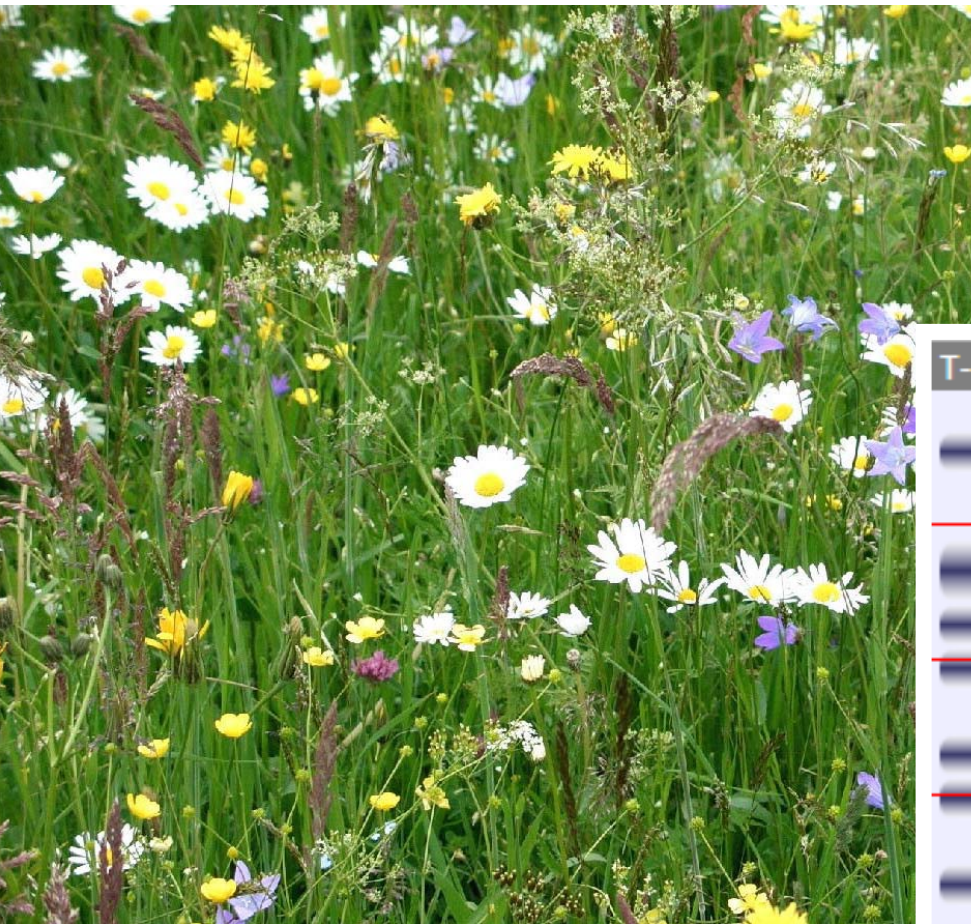






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Biotech and Medtech in Alpine Space







High expectations.....

Alps and water – no problems ahead?





Alps Bio Cluster

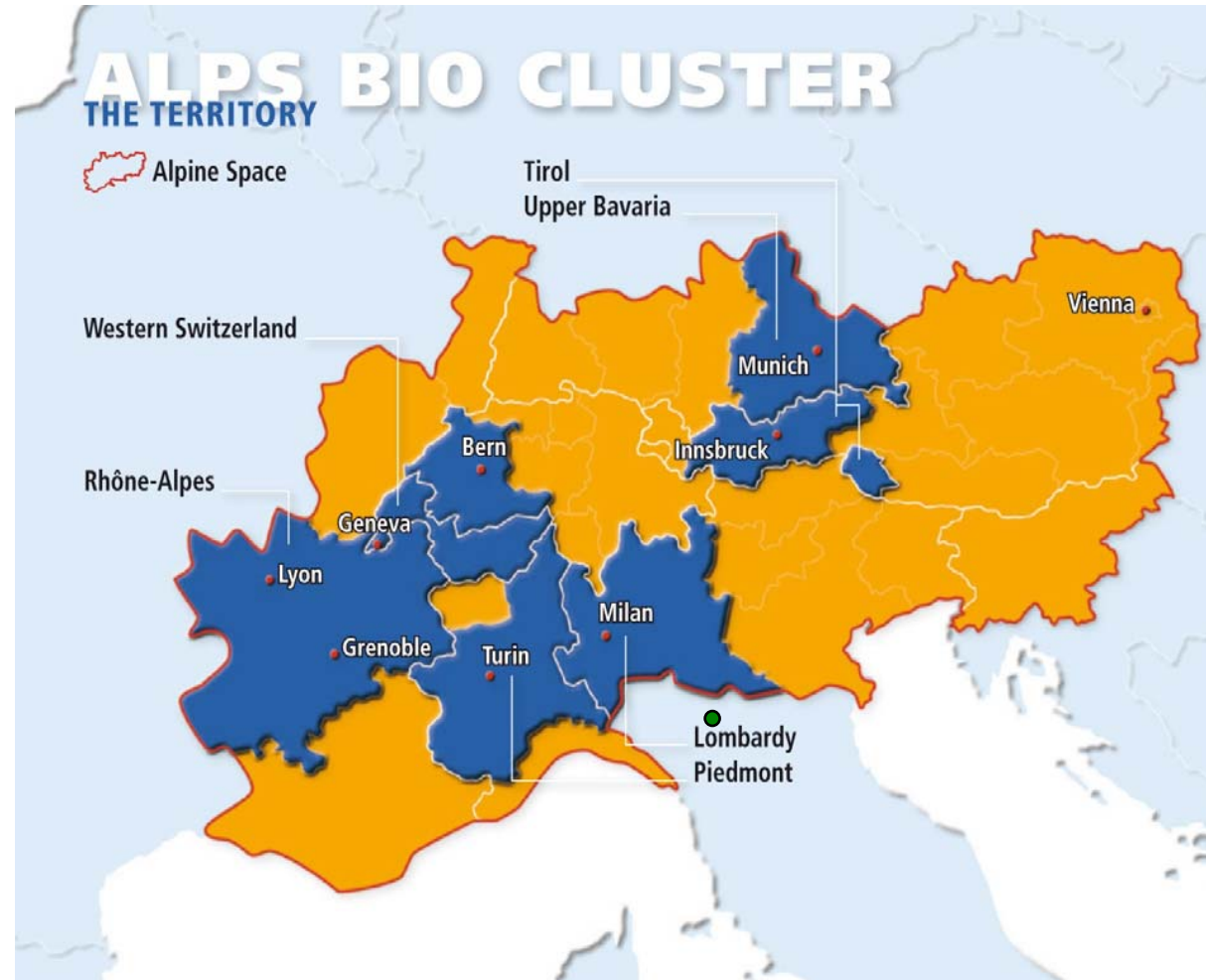
Biotech and Medtech in the Alpine Space

Federating 8 partners from 5 Alpine countries: FRANCE, ITALY, SWITZERLAND, GERMANY, AUSTRIA

□ Coordinated by:
ADEBAG (Grenoble Alps Bio Network)

□ 7 Project Partners:

- Lyonbiopôle (*Rhône Alpes*)
- BioIndustry Park Silvano Fumero (*Piedmont*)
- Milan Chamber of Commerce (*Lombardy*)
- BioAlps (*Western Switzerland*)
- Tiroler Zukunftsstiftung (*Tirol*)
- Helmholtz-Zentrum München
(*German Research Center for Environmental Health*)
- Weihenstephan - Triesdorf
University of Applied Sciences (*Upper Bavaria*)



Alps Bio Cluster
Biotech and Medtech in Alpine Space

Alps Bio Cluster

Biotech and Medtech in the Alpine Space

Objectives

- ❑ Establish a transnational cluster with 2 main working axes managed by specific groups of experts:
 - **“New diagnosis and therapies”** in the biotech sector
 - **“Autonomy and Healthcare”** in the medtech sector
- ❑ Encourage **transalpine cooperation** between R&D centres, universities, start-ups and SMEs
- ❑ Support **collaborative projects**
- ❑ Boost **joint economic development** by reaching a critical mass of key players.

Our vision

"A Healthy life at home in the Alps in a natural environment worth to be preserved"

Alpine Space Key Figures

Industry:

750 Biotech companies
550 Medtech companies
1 200 SMEs
80 big companies

Education:

35 universities

Research:

66 research centres

Supporting services:

29 incubators and science parks
17 technology transfer organisations

Finance:

27 Venture capital companies*

* Results from Alps Bio Cluster territorial analysis – June 2009

Alps Bio Cluster Thematic networks

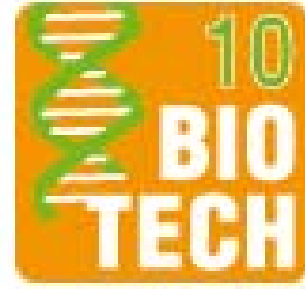
*Establishment of 3 cross-sectoral and multidisciplinary networks,
each managed by a leading group*

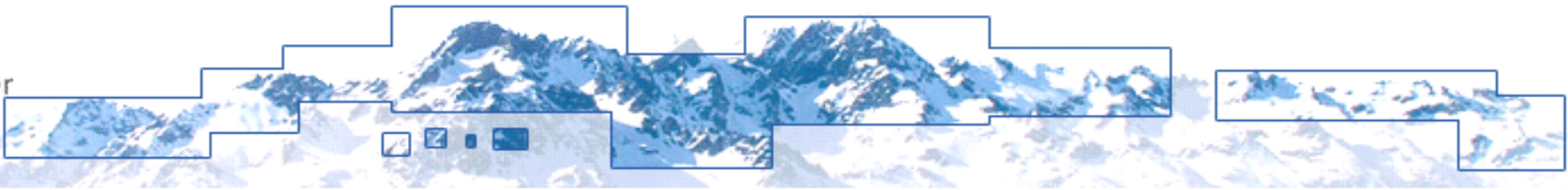
- ✓ “e-Care” linked to the axis “Autonomy and Healthcare”
- ✓ “**Converging technologies and Personalized medicine**” linked to the axis “New diagnosis and therapies” and
- ✓ **“Ecosystem services for human health”**

Each network established “expert groups” of key players from the regions

Each network was active in writing grant proposals in EU calls

A good example: the Biotech 2010 Fair, Milan





- Winter seminar „Environmental Biotechnologies to Improve Human Health and Quality of Life”, February 2010

- presentation of latest trends and technologies
- international expert panel

- how to enhance co-operation?

→ Permanent group of experts for discussion of trends, needs and project ideas

→ **Green biotech focus group**

„Ecosystem services for human health“

Alps Bio Cluster
Biotech and MedTech in Alpine Space

3rd Alps Bio Cluster Event with Exhibition Area

Environmental technologies to improve human health and quality of life
Solutions for the Alpine Space

3 - 4 February 2010
Helmholtz-Zentrum München, Neuherberg

Alpine Space
innovohub
LYONBIOPOLE
hinalps
Helmholtz Zentrum München
Deutsches Forschungszentrum für Gesundheit und Umwelt

- Spring Seminar, May 2011:

- 2.5 day meeting in Garmisch-Partenkirchen, aim:
- 2 project proposals focusing on upcoming topics in environmental biotechnologies
- experts from the Alpine space but also from abroad (It, Fr, Nor, Pol, Gr, Hu, Ger)





Experience and Recommendations:

- Need for a biotech meta-cluster in the alpine space
- Annual thematic events focusing on specific topics
- Bring key players into personal contact: foster public/private partnership
- Stimulate discussions between stakeholders: local authorities, policy makers, SMEs and researchers
- Improve human health and quality of life in a fragile and endangered area
- Facilitate access to information and funds on transalpine/international level
- **Recommendation to funding bodies: reduce administrative hurdles**





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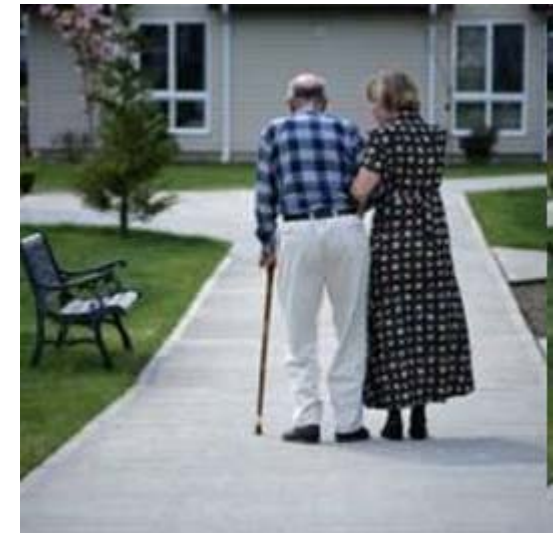
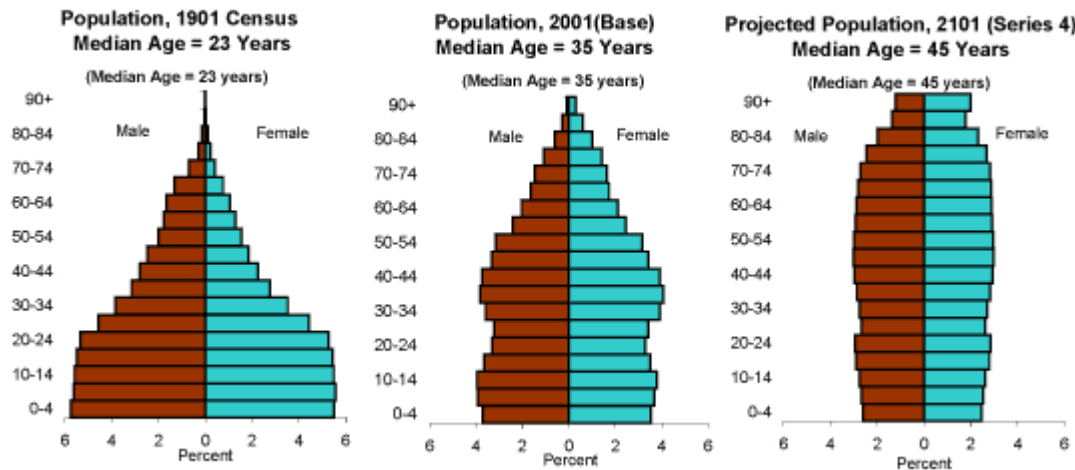
“e-Care” pilot network

*linked to the axis “Autonomy and
Healthcare”*

Leading Group “e-Care”

✓ Global Context

- The healthcare sector is facing increased needs due to the **ageing population** and the raise of **chronic diseases**.
- Cost reduction in European public budgets : high demand of quality and efficiency to the medico-social systems



Leading Group “e-Care”

✓ Challenges in the Alpine Space

- The lack of health professionals in Alpine Space
- The difficulties to reach hospitals because of isolated situations
- An increasing tourist population during winter and summer seasons
- Transnational area : **different** features of the European medico-social systems and medical information systems



Leading Group “e-Care”

✓ The main objective to reach is :
To take a better care of isolated patients and/ or at home by using ICT technologies integrated to medical devices : “Personalized care services”



BIOTECHNOLOGIES AND MEDICAL TECHNOLOGIES IN THE ALPINE SPACE

Alps Bio Cluster Catalyst Event
«ICT & Care: toward personalized services»

7-8 July, 2010
Grenoble, France



Registration online:
www.alpsbiocluster.eu



Alps Bio Cluster
Biotech and Medtech in Alpine Space

Programme in collaboration with
UNIVERSITÉ DE
GRENOBLE



Alps Bio Cluster
Biotech and Medtech in Alpine Space

Leading Group “e-Care”

✓ Composition

- around 12 experts from companies, academics, research institutes, medico-social field, end-users organizations of the Alpine Space

✓ Missions

- Exchange of good practices and mutual learning
- Identification of problems to overcome in setting up European collaborative projects and solutions to bring
- Identification of the key success factors for transnational projects' success
- Build transnational collaborative project to apply for European calls: AAL Call 3 &4, FP7 ICT Call 7 Challenge 5, CIP –ICT Call 2011

Leading Group “e-Care”

1st meeting

7th July 2010 - Grenoble, France

✓ 4 defined axes of working :

1. A common technological European initiative: integrated platform open source & interoperable, development of technologies : low energy, self adaptive system and data fusion software
2. Access to the market for SMEs:
 - how to reach a strong dissemination, what is the good level of deployment: regional, national, European ?
 - How to involve big medical devices companies in the network ?
3. Lobbying at European level: recommendations on PPP e –health to take into account specific mountains areas
4. Transnational management of projects : methodology & support to set up European projects for the FP 7 ICT & Health Call

“Converging technologies and Personalized medicine” Pilot Network

linked to the axis “New diagnosis and therapies”





EUROPEAN REGIONAL DEVELOPMENT FUND
Investing in your future



Alps Bio Cluster
Biotech and MedTech in Alpine Space

Leading Group “Converging technologies and personalized medicine”

✓ Global Context

- Personalized medicine is an extension of traditional approaches to treating diseases, with greater precision
 - tailoring of medical treatments to individual genetic characteristics of each patient.
- Multidisciplinary sectors involving different industries (biopharmaceuticals, diagnostics, medical devices...)
- Personalized medicine means innovative, cross sector and highly specific characteristics – involving advanced technologies and raises social issues..





NON-RESPONDERS AND TOXIC RESPONDERS

Treat with alternative drug or dose



RESPONDERS AND PATIENTS NOT PREDISPOSED TO TOXICITY

Treat with conventional drug or dose



Rebecca Henrietta

Leading Group “Converging technologies and Personalized medicine”

✓ Composition

- around 10 experts from companies, academics, research institutes, insurance, venture capitalists...

✓ Missions

- Identification of project ideas that could be set up at the European level within a European call
- Building transnational networks to apply for European calls
- Set up applications for European projects (supported by Alps Bio Cluster team)



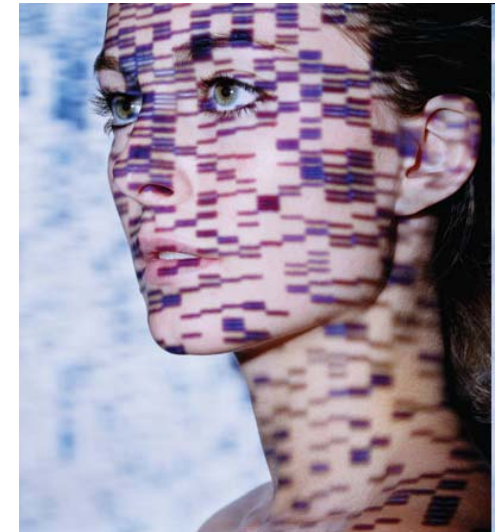
Leading Group “Converging technologies and Personalized medicine”

1st meeting

October 26th (with Biotech Fair 2010), Milan

✓ Road Map and Action Plan

- Identify the expectations of the participating experts
- Identify key common area of interest
- Analyze the first expressions of interest for the creation of partnerships related to specific EU calls



“Ecosystem services for human health” Pilot Network

linked to the axis “New diagnosis and therapies”

Leading Group “Ecosystem services for Human Health”

✓ Global Context

- It is an opportunity to successfully address EU policy goals, among the others:
 - sustainability, reduction of CO₂ emission, energy efficiency and sustainable development
- Green Biotechnologies cover a wide range of requirements: **modern biotechnology methods for plant improvement, improvement of nutrition...**
- Technological improvements in these fields are crucial



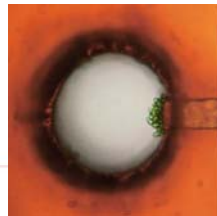
Care has to be taken to

- ✓ preserve the Alpine region as an independent economic space to meet the needs of the resident population through sustainable development;
- ✓ shape and manage the cultural landscape in order to preserve the Alpine region as a living space based on diversity;
- ✓ permit a greater role to be played by the forces of natural development without anthropogenic interference.
- ✓ refrain from making unsustainable use of the Alpine space

Leading Group “Ecosystem services for Human Health”

✓ Objectives to reach

- The leading group = a representative voice of the Alpine space, through which the above issues could be addressed
- Care has to be taken to preserve the Alpine region as an growing economic space in a delicate environment
- Networking and clustering are indispensable:
 - to yield best impact of accumulated academic knowledge and practical green solutions offered by SMEs
- Important to stimulate discussions between stakeholders: local authorities, policy makers, SMEs and researchers on green biotechnologies and foster public/private partnership

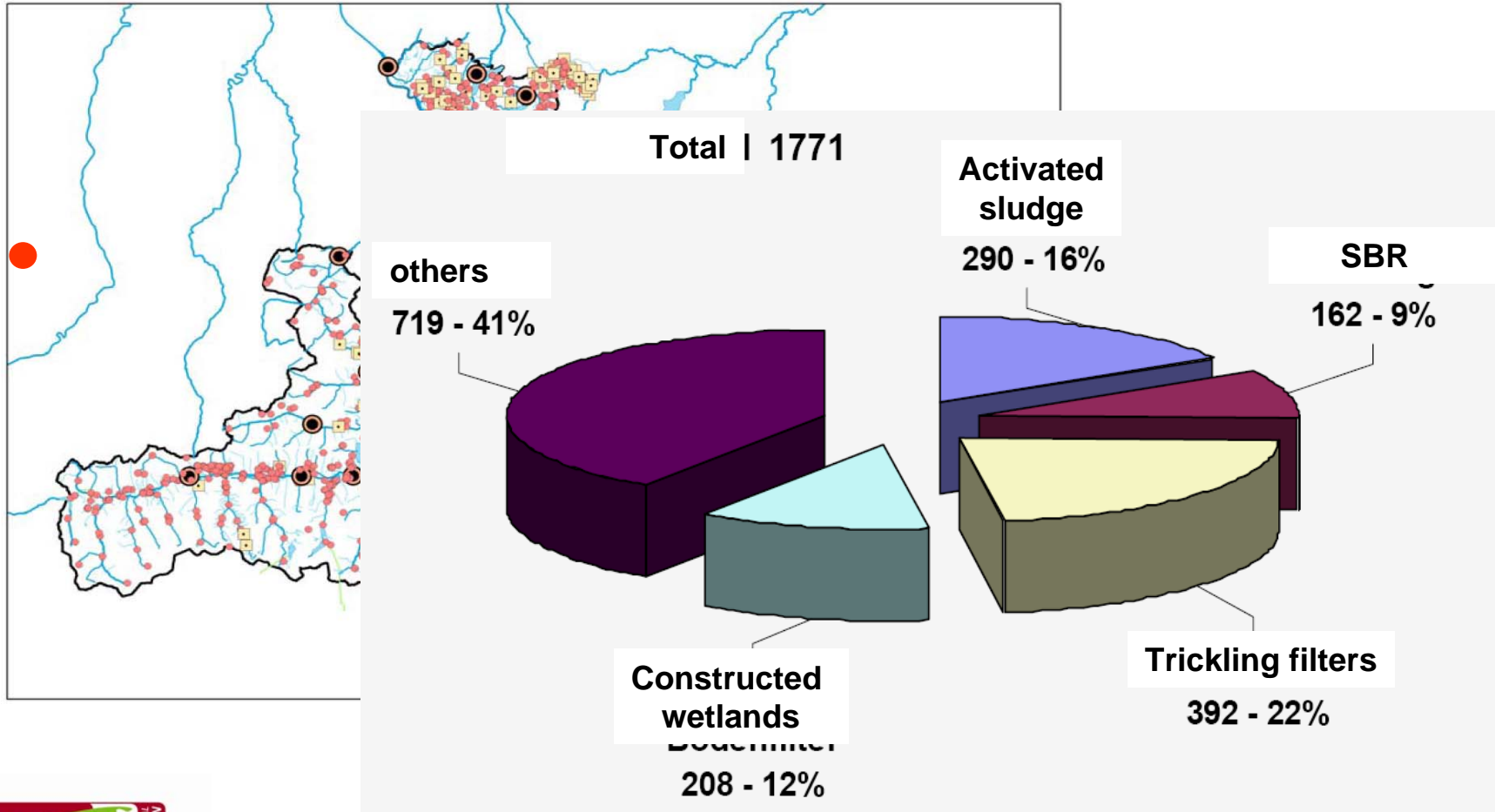


Welcome



Practical experiences with CWs

Example Salzburg (1771 small WWTPs)



The uniqueness of the Alps

- The Alps are home to 13 million people.
- In 190.912 sq.km. within the Alpine arc we find the territory of seven countries, 83 regions and about 6,200 communities.
- The Alps have a unique combination of natural and cultural history, and have become a living space, an economic area and a recreational playground of eminent importance at the heart of Europe.
- To preserve the Alpine Space as an overall region, specific models and concepts are just as important as individual measures. (Alpine Convention)

„micropollutants“

ppq

1 %



1 ppt



1 ppm



1 ppb



Alps Bio Cluster EVENTS

Past events

- ✓ **ESB** - Sept.8, 2009, Industrial Day C@ ESB in Lausanne, Switzerland (12 speakers, 53 face-to-face meetings)
- ✓ **Medtech Partnering Day “ICT & Health”** - Nov.24, 2009 in Innsbruck, Austria (58 attendees – 74 face-to-face meetings)
- ✓ **Alps Bio Cluster Catalyst Event on “Biotherapy and Diagnostics”** - Dec.1, 2009 in Lyon, France (35 attendees – 3 thematic round tables)
- ✓ **Winter Seminar on Environmental Biotechnologies to improve Human Health and Quality of Life – Solutions for the Alpine Space** - Feb 3 & 4, 2010 in Munich (Neuherberg), Germany (70 participants – 17 experts)
- ✓ **“ICT & Care: toward personalized services”** - July 7 & 8, 2010 in Grenoble, France (70 participants – 23 speakers)
- ✓ **International Summer School on Biotechnologies – Freising (Munich)** - from 26 July to 1st August 2010 in Munich (Freising), Germany (26 student participants)

Up coming events

- ✓ **Alps Bio Cluster brokerage event for Business and research profiles @ Biotech 2010** – Oct. 27, 2010 in Milan

Info on upcoming events on www.alpsbiocluster.eu/events



Experts present problems to be solved by green Biotechnologies in the Alpine Space:

- Christina Mayer, University of Weihenstephan-Triesdorf, Germany
- Jean-Paul Schwitzguebel, EPFL Lausanne, Switzerland
- Andre Gerth, Bioplanta, Leipzig, Germany
- Stan Cieslik, Joint Research Centre, Ispra, Italy
- Elena Maestri, University of Parma, Italy
- Muriel Raveton, University of Gernoble, France
- Martin Schaub, CTU, Switzerland
- Andrea Vallan, Chamber of Commerce, Milan, Italy



Leading Group “Ecosystem services for human health”

1st meeting

Spring seminar in Munich in May 2011

✓ Road Map and Action Plan

- Set up a system of criteria and indicators to point out local needs of Green biotechnologies
- Production of draft guidelines for policymaking and decision making in the field environmental biotechnologies
- Identification of collaborative / research projects that could be set up at a European level