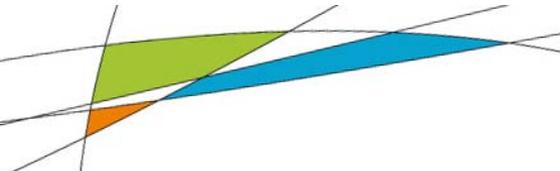


Cemagref

**Research institute for sustainable
land and water management**





Cemagref

Public research institute (EPST)

- **9 centres** + 2 branches (Strasbourg and Martinique)
- Workforce of **1400** including **500 scientists**, **200** doctorate and **40** post-doctorate fellows
- **110 M€** budget including **79 M€** Core Budget and **31 M€** contracts (2010)





Land, water and environmental technologies
Fields directly related to the **needs of Society**



Scientific and technical support for **public policy** in the form of research, science advice, models and operational tools



An **engineering** culture based on **multi-disciplinary approaches**



Cemagref 2020 strategic plan based on 3 scientific challenges

Multi-sectoral approaches for **land and water management**

Risk management and the viability of environmental systems



Methods and techniques for **environmental quality**



Organisation

3 departments

- **Water**
Resources, environments, uses and risks
- **Environmental technologies**
Networks, water treatment, waste
- **Land**
Territorial development, biodiversity, risks and vulnerabilities

12 research programs

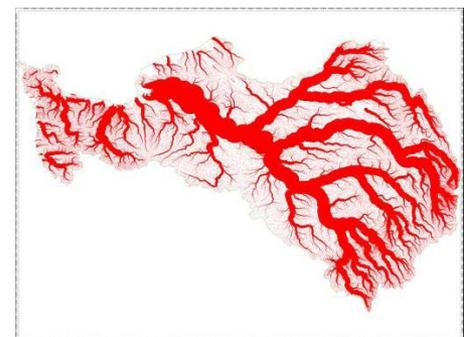


Cemagref organisation

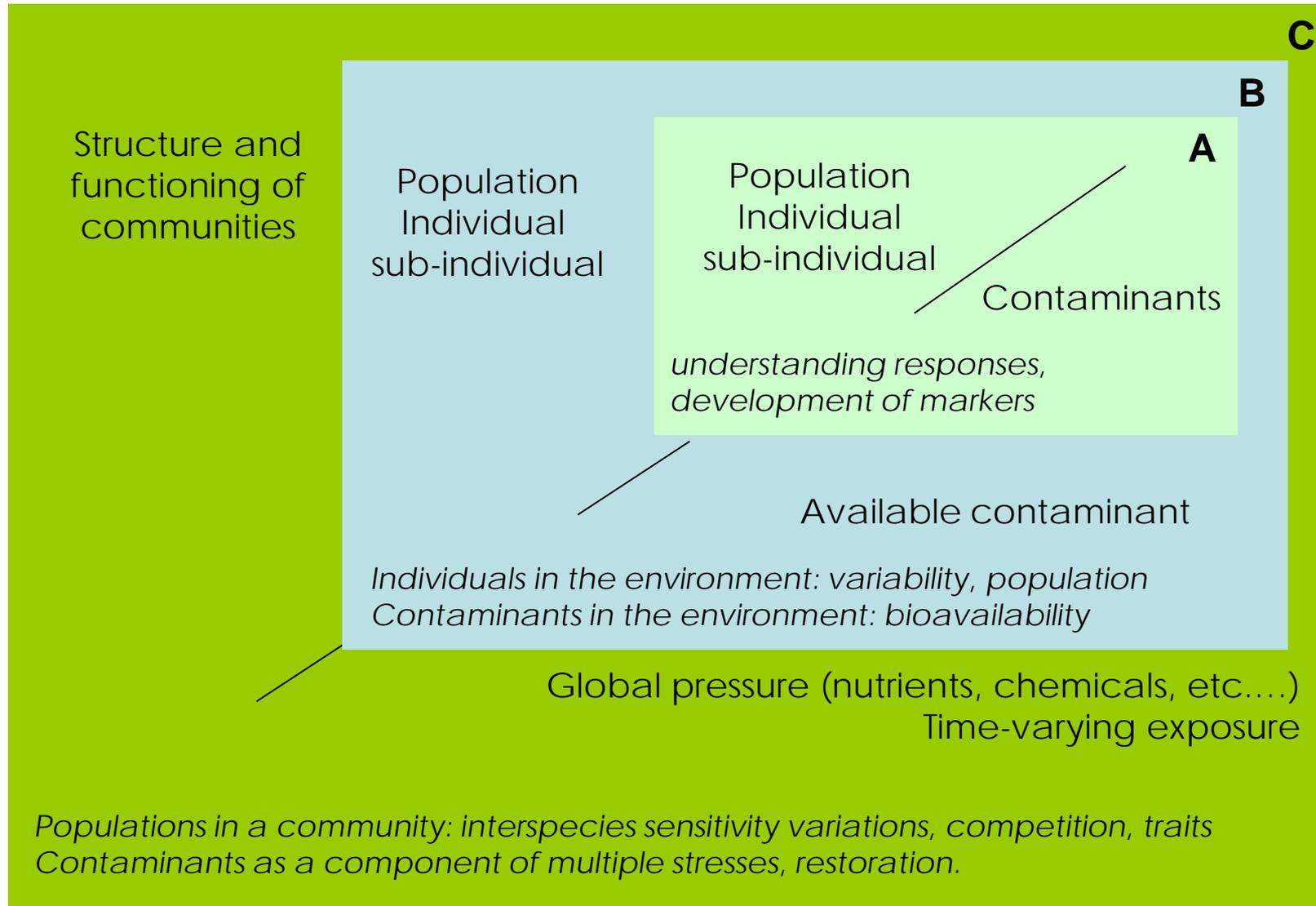
Water

Resources, environments, uses and risks

- Quality of aquatic ecosystems and ecosystem restoration
- Anthropogenic pressures and impacts of chemical pollutants on aquatic ecosystems
- Risks and hazards related to the water cycle
- Risks due to flows, vulnerability and the safety of installations
- Management of water, of water uses and services, and of their impacts



Research organization illustrated by "BELCA"





BELCA's contributions to strategic challenges

- **Environmental quality**
 - Methods for assessing environmental quality
 - Indicators design and test
- **Risk management**
 - Vulnerability assessment
 - Contribution to the design of management endpoints (systems viability, resilience ...)

Public-Private Partnership



Partnership with EDF

- Water: link the high-level research in hydrobiology and hydraulics for sustainable management of installations and civil work
- Refrigeration: develop innovative technologies reconciling cold-chain effectiveness and reduced environmental impacts

With Suez

- AMPERES: Evaluate the effectiveness of waste-water treatment plants in eliminating priority and emerging substances (medication)

With Veolia

- Determine the technical performance of water distribution networks and create statistical, optimisation and modelling software to manage the ageing, rehabilitation and upkeep of pipes with the help of Veolia teams

Competitiveness poles, e.g. Axelera



Public-private partnership acknowledged by the **Carnot Label** since 2006



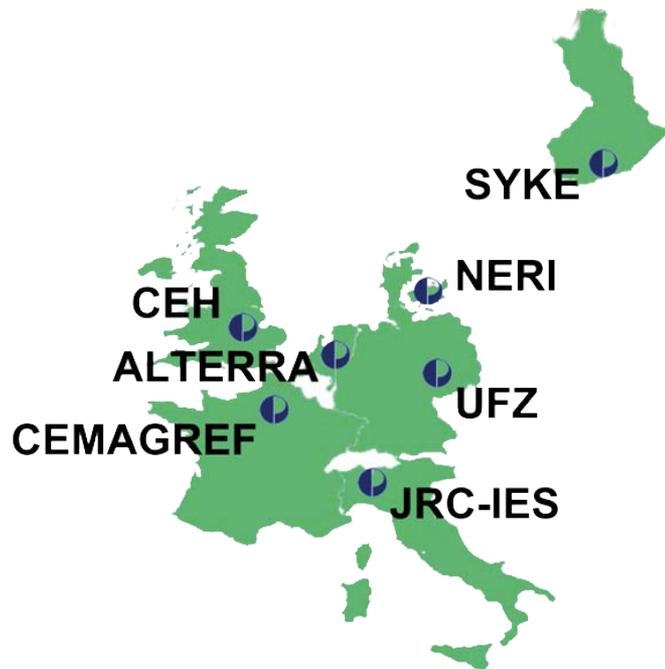
European partnerships

- **EurAqua** - European Network of Freshwater Research Organisations (chaired by Cemagref since Oct. 2009)
- **AlterNet** - A long-term Biodiversity, Ecosystems and Awareness Research Network (management board chaired by Cemagref in 2009)
- **Connect** - European Network of research institutes for Biodiversity
- **Landscape Europe** - European Network of expertise on landscapes
- **PEER** - Partnership for European Environmental Research

PEER (partnership for environmental research in Europe)

is a network of 7 major environmental research institutes in Europe

sharing of strategic information
good visibility at the European institutions level
common projects and joint programming
scientists exchanges



persons 4700

Million € per year 363

scientific publications per year 5200

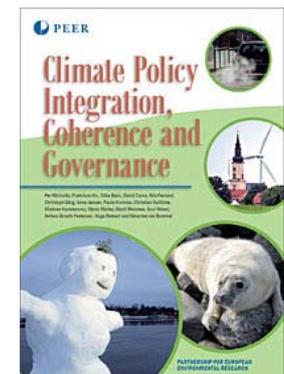
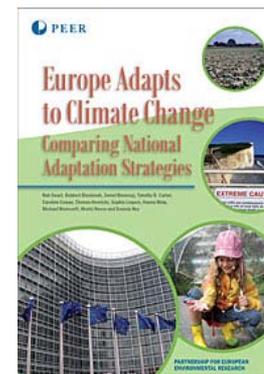
doctorates 700

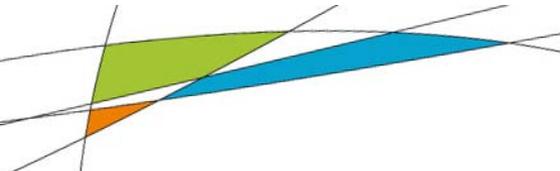
Research projects within the EU FP numerous

books on Climate Change 2



<http://www.peer.eu>





Euraqua

is the European Network of Freshwater Research Organizations



- Most EU countries represented, + some non EU countries
- Integration of European research resources through joint actions and initiatives
- 1. Involvement in the programming processes of the EC on waterrelated research
- 2. Promoting the collaboration and efficient transfer of knowledge between scientific institutions and between researchers
- 3. Providing expert advice to EU institutions and other stakeholders
- 4. Increasing the competitiveness of the European water sector on a global scale



International partnerships

Canada : Laval University, INRS, University of British Columbia, Mc Gill Univ., Ministry of Natural Resources

US : USGS, MIT, UC Berkeley, UC Davis

Brazil : Sao Paulo University, Brasilia University, EMBRAPA, National Water Agency (ANA)



Mediterranean area :
IAV Hassan II Marocco,
INRGREF Tunisia

South Africa :
Cape Town University, IWMI

Australia :
ANU, CSIRO, USYD,
UTS, UNSW, Univ. of
Western Australia,
Monash Univ.,
Newcastle Univ.

New Zealand :
NIWA, Landcare Research