Water Science reaching Policy and Industry – Snapshot of the Horizon2020 framework

Philippe QUEVAUVILLER

"Security Research and Industry" unit
DG Enterprise and Industry

Leuven , 20 November 2013

WFD

Adopted on 20.12.2000

+

Flood Directive

(and parent legislation)

Anticipating – Feeding with research outputs linked to well defined Poliy milestones

River basin districts Delineation water bodies 2005

Analysis of pressures and impacts 2005

Classification of bodies 'at risk'

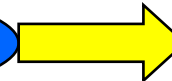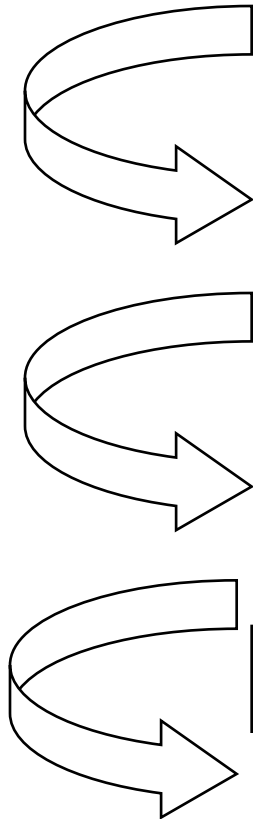**Design of monitoring Programmes 2006**

RBMP – 2009/2015

6 years cycle / Review

Programmes of Measures 2012

GOOD STATUS OBJECTIVE
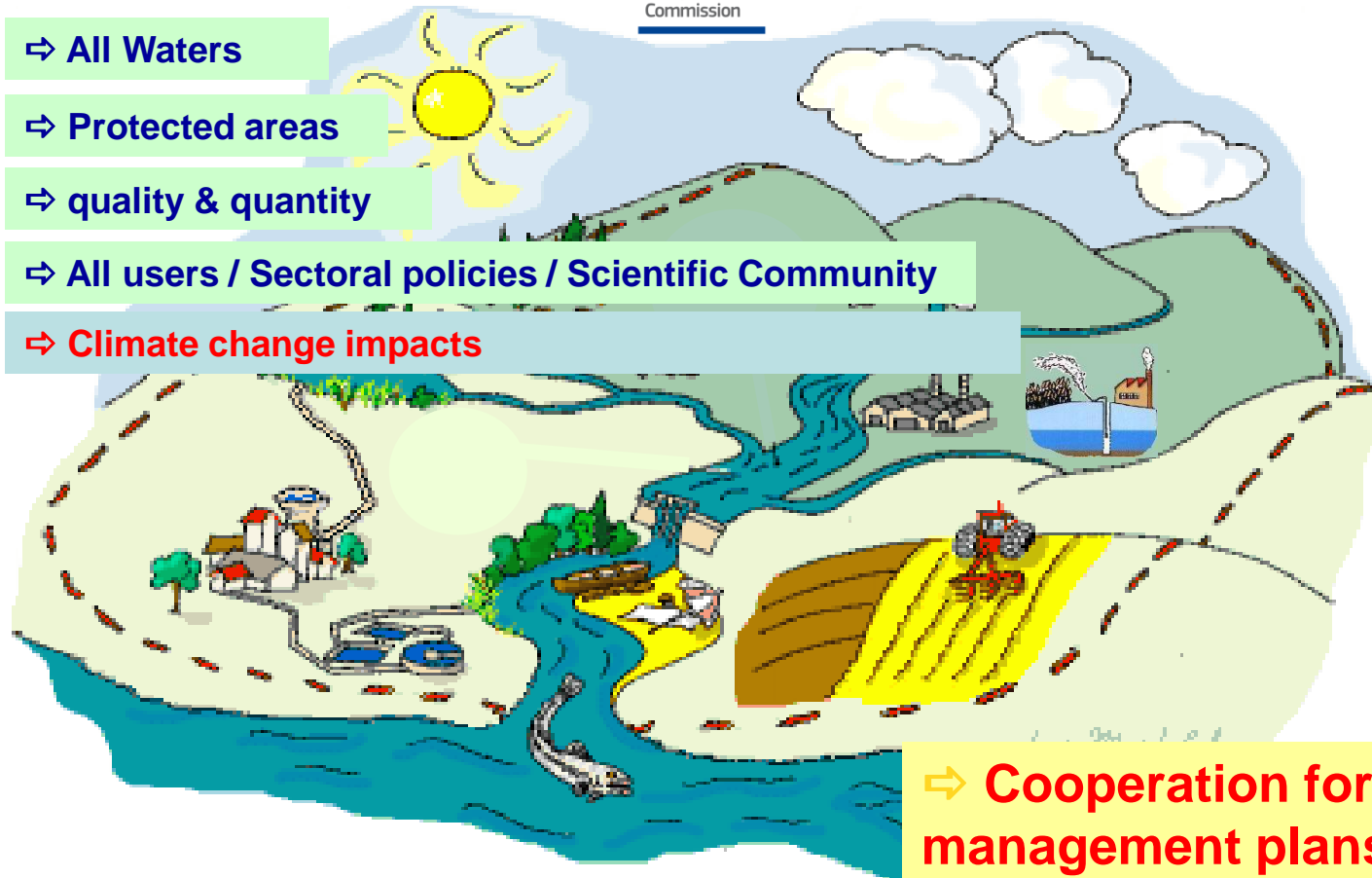
Working on a catchment level: regional scale!

European Commission

⇨ **All Waters**

⇨ **Protected areas**

⇨ **quality & quantity**

⇨ **All users / Sectoral policies / Scientific Community**

⇨ **Climate change impacts**

⇨ **Cooperation for water management plans including the climate change component (mitigation, adaptation)**

Links with policy milestones – ex. floods

DESIGN POLICY

...ICY ...ELOPMENT

P... I... ...ION

POLICY

RESEARCH, SCIENTIFIC PROGRESS, POLICY INTEGRATION

FLOODsite: Integrated flood risk analysis and management methodologies

2004–2008

IMPRINTS: Flash floods and debris flow events

2009–2012

CORFU: Flood resilience in urban areas

2010–2014

STARFLOOD: Towards resilient flood risk governance

2012–2016

European Commission

- **Building on experience (incl. <u>scientific knowledge</u>), planning and programmes already in place; using existing cooperation structures such as river basin agreements and civil protection plans**
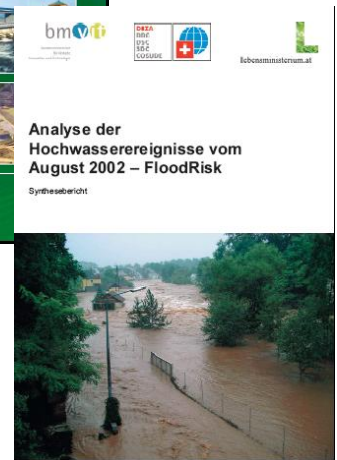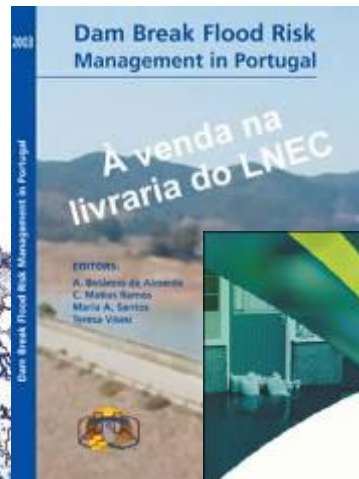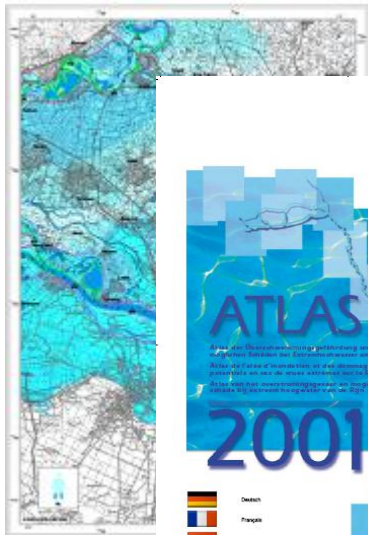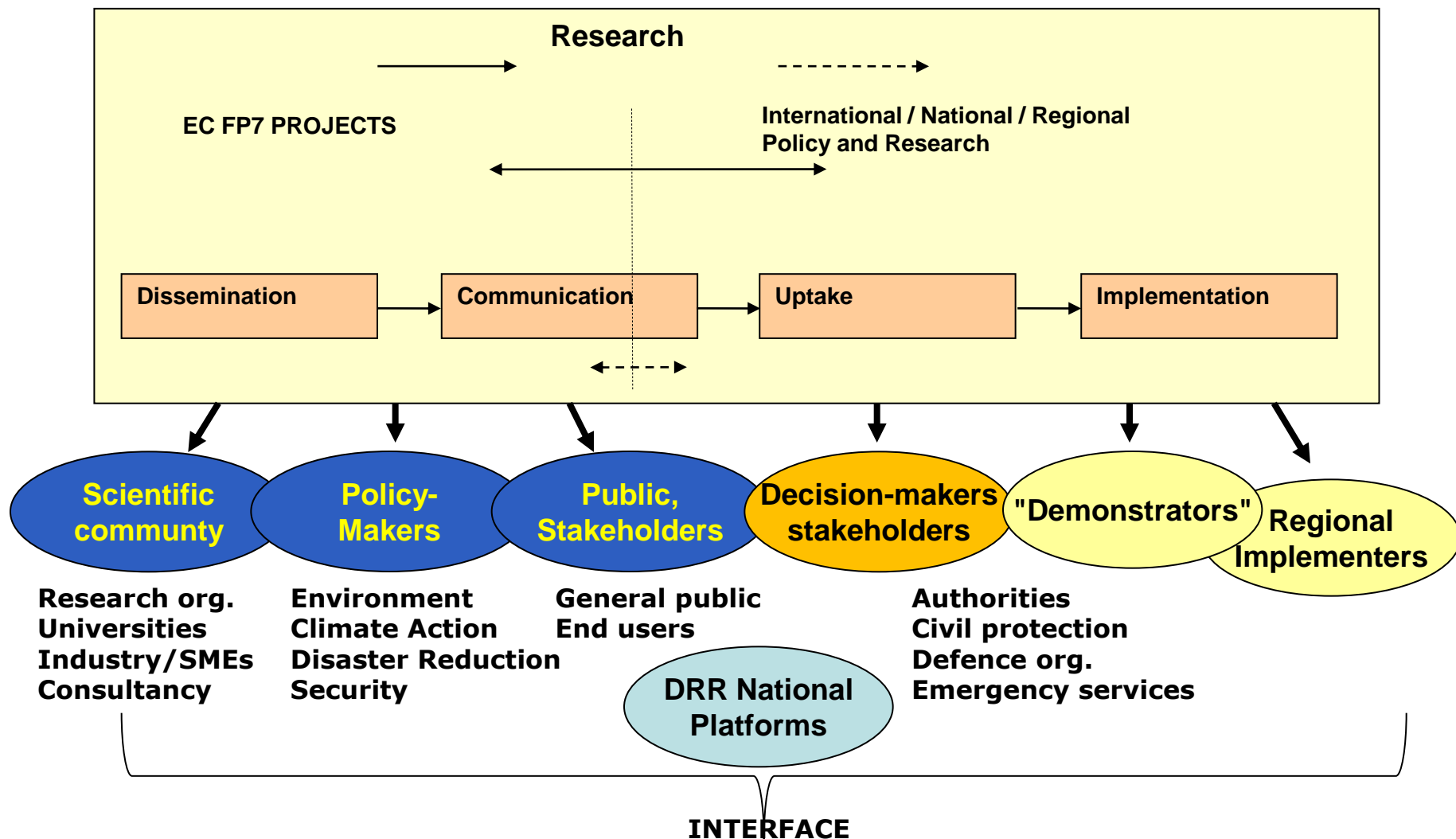
Research Implementation

Knowledge base

Technological Development

RESULTS

Public Research Organisations

S & T developing Organisations (SMEs)

PROGRAMME OF MEASURES

IDEAS

ACA

Beneficiaries

Catalan University System

INTEGRATED BY ACA

PROTOTYPES

CATALUNYA'S RIVER BASIN DISTRICT (MANAGEMENT)

Spin Off

Specialised enterprises

Technical Directorate

COMMERCIALISATION
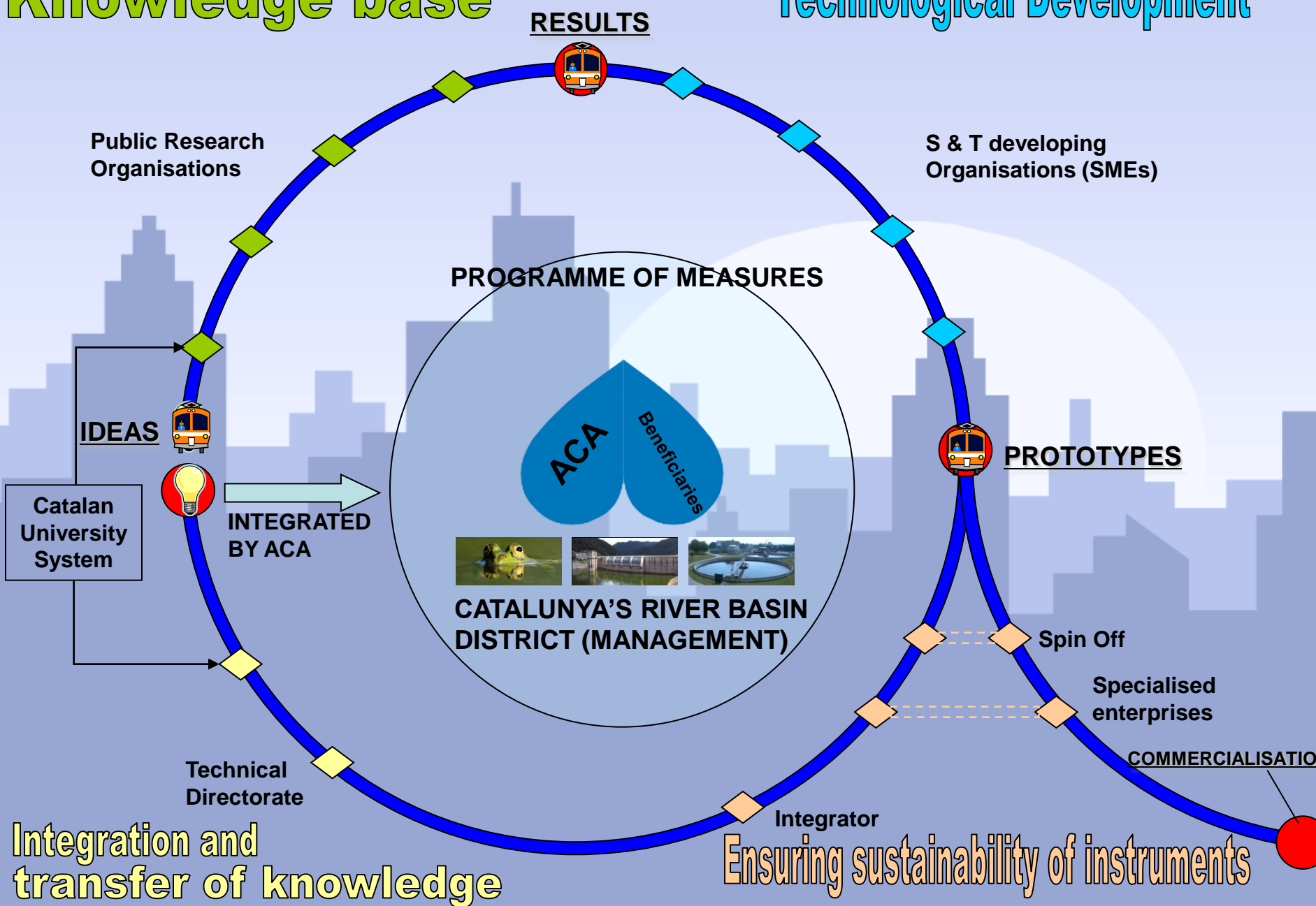
Integrator

Integration and transfer of knowledge

Ensuring sustainability of instruments

ourtesy of Catalan Water Agency

Networking efforts to limit fragmentation

Project partners: CC impacts on the Mediterranean

- CLICO
- CLIMB
- WASSERMed
- CIRCE

Third Partner Countries
- INRS, Canada
- Addis Ababa Univ., Ethiopia
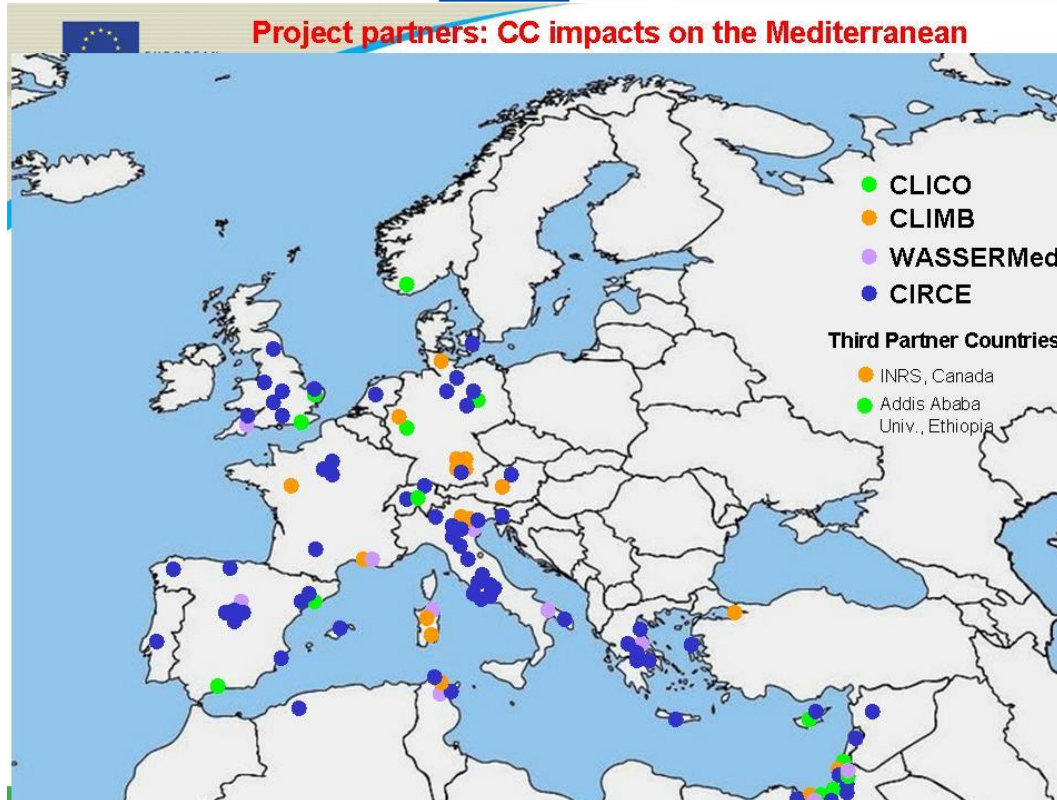
EU-Funded research

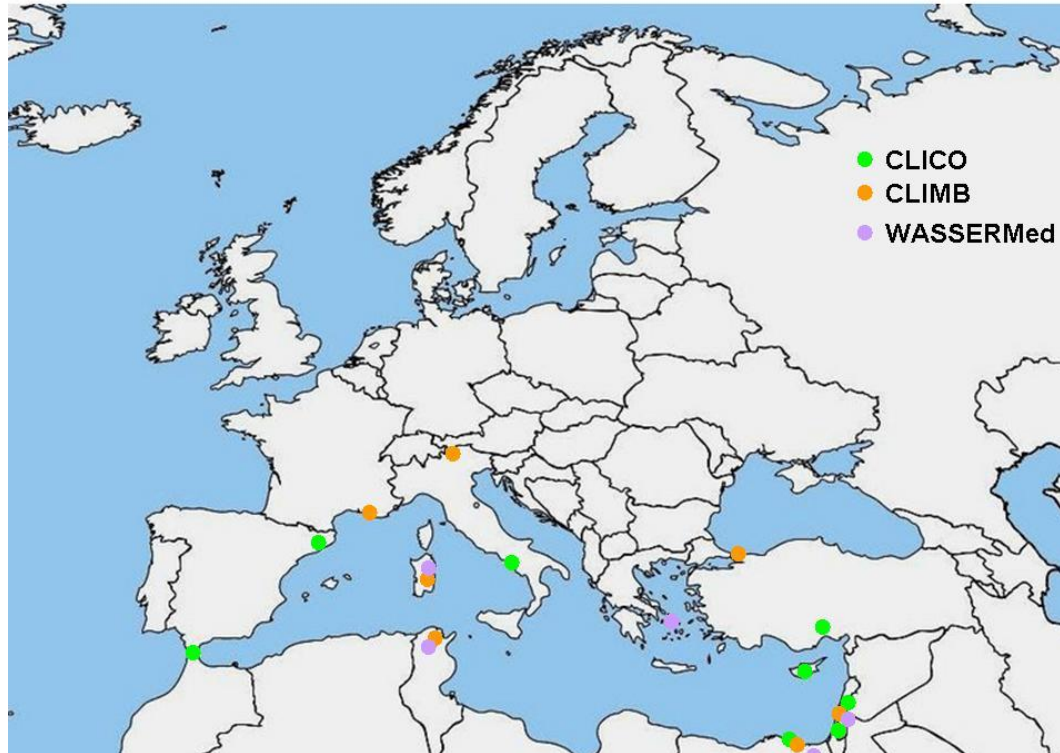**RTD synergies, Critical mass?**

Links with EU, National, regional stakeholders?

Joint dissemination strategies, communication efforts (single voice)?

Using case studies as a link to regional scale

Location of study areas

Case studies

Project data: EEA, WISE?

Links with regional projects, incl. INTERREG?

Links with River Basin Authorities, local science providers, others?

Needs for "mediation" mechanism

who - is your audience or the users of the information?

what - do they need to know?

how - is it best presented?

when - do they need the information?

Translators/transformers
a two-way process
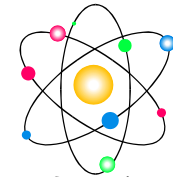
Research Community "Doers of science"

"Translator/Transformer"

"Users" (e.g. Policymakers & regulators)

DEFINING THE NEEDS ⟵

TRANSLATING & UNDERSTANDING ⟶

How to ensure an efficient „transforming" work?

Courtesy of Peter Allen-Williams (IWRM.Net) & Bob Harris
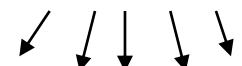
Policy implementation: strategic approach (embedded into the Blueprint)
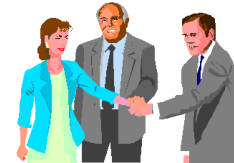
European Commission

Water Directors
Steering of implementation process
Chair: Presidency, Co-chair: Commission

CIS-SPI

Strategic Co-ordination Group
Co-ordination of work programme
Chair: Commission

Art. 21 Committee

WG A "Ecological Status"
Chair: JRC, DE, UK

WG D "Reporting"
Chair: EC, EEA, FR

WG F "Floods"
Chair: EC, IE

Climate Change & WFD
Chair: DE, EC

WFD and Agriculture
Chair: FR, UK

WG C "Groundwater"
Chair: EC, AT

WG E "Chemical Aspects"
Chair: EC, JRC, IT, FR, SE

Water scarcity and drought
Chair: IT, FR, ES

Established working groups

Temporary working groups

Stakeholders, NGO's, Researchers, Experts, etc.

Towards science-policy interfacing?

European Commission
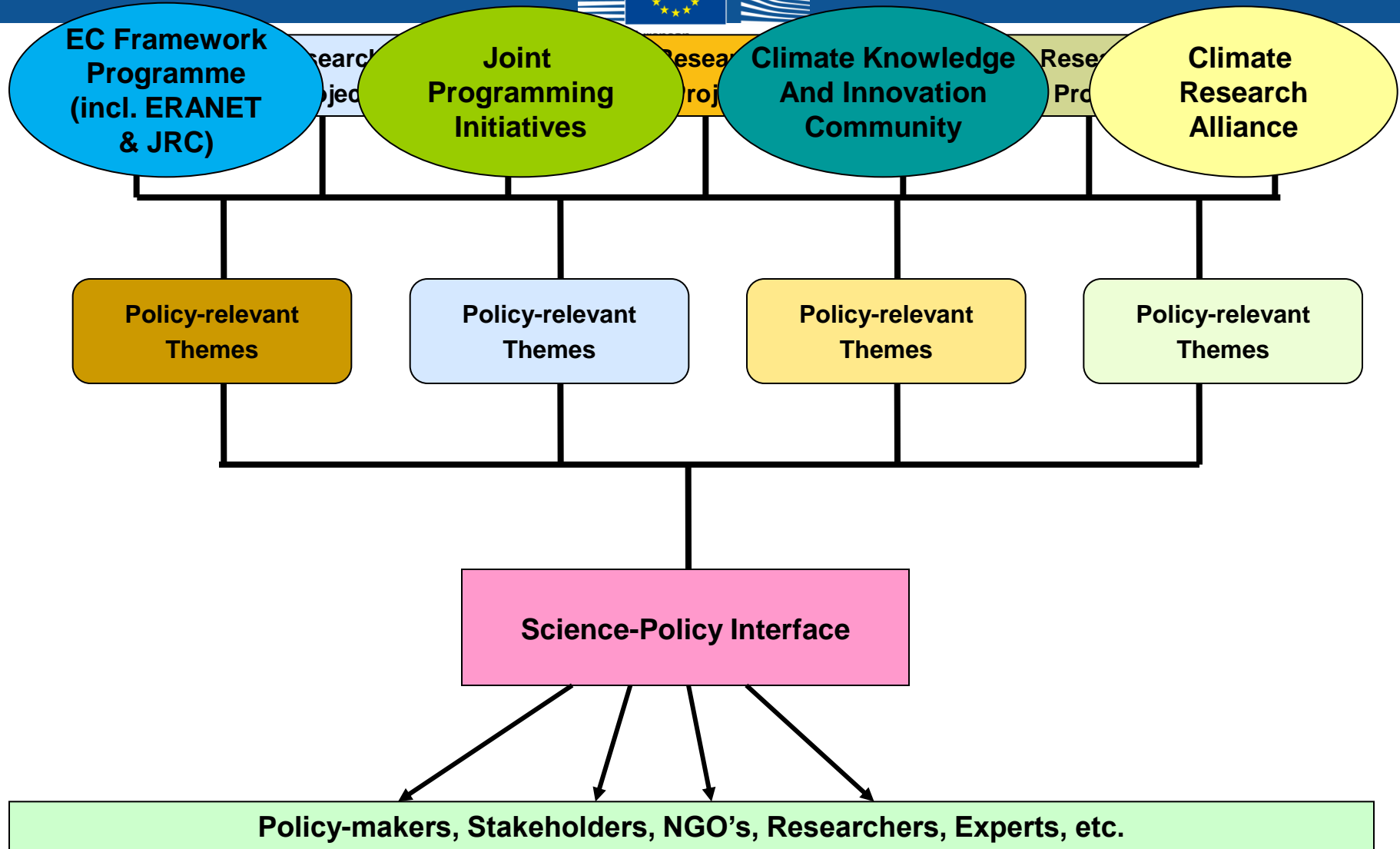
Horizon 2020 is different

➢ A strong challenge-based approach, allowing applicants to have considerable freedom to come up with innovative solutions

➢ Simplified list of possible actions (e.g. research and innovation - 100%; innovation actions - 70%,…)

➢ Less prescription, strong emphasis on expected impact

➢ Cross-cutting issues mainstreamed (e.g. social sciences, gender, international…)

A strategic programming approach

➢ Work programme preparation based on guidance obtained from a strategic programming exercise

➢ Work programmes with a 2 year-duration

➢ Leitmotif of the first work programme is the **economic crisis and the path to sustainable growth -** Horizon 2020 can make a significant contribution to this effort

➢ 'key drivers' used to identify areas on which resources and effort will be focused for maximum impact

  ➢ focusing on sustainable competitiveness, innovation and growth;
  ➢ measures to leverage engagement of industry, including SMEs;
  ➢ access to finance;
  ➢ developing new knowledge and contributing to skills;
  ➢ deployment of enabling technologies;
  ➢ measures to address the research and innovation divide;
  ➢ supporting strong partnership with Member States; and
  ➢ strategic approach to international cooperation.

Focus Areas

➢ Strategic programming identifies focus areas, each covered by a specific call, that:

- o Bring together activities from different challenges and enabling technologies

- o Provide support across the innovation chain from research, to development, to proof of concept, piloting, demonstration projects, and to setting standards and policy frameworks.

- o Make use of the full spectrum of funding schemes and types of action e.g. research and innovation actions, innovation actions, ERANets, SME instrument…

- o Integrate different perspectives, including from the social sciences and humanities, gender perspectives, and international strategy

Work Programme topics

Structure reflects the challenge based approach

– 3 key features

Specific Challenge

- o sets the context, the problem to be addressed, why intervention is necessary
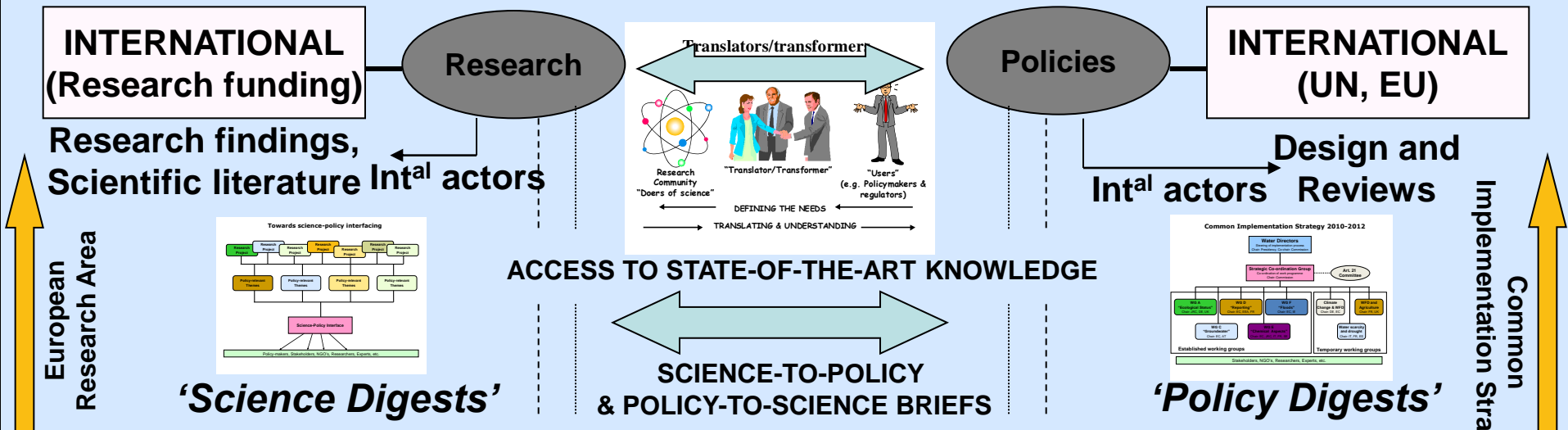
• Scope

- o delineates the problem, specifies the focus and the boundaries of the potential action BUT without overly describing specific approaches
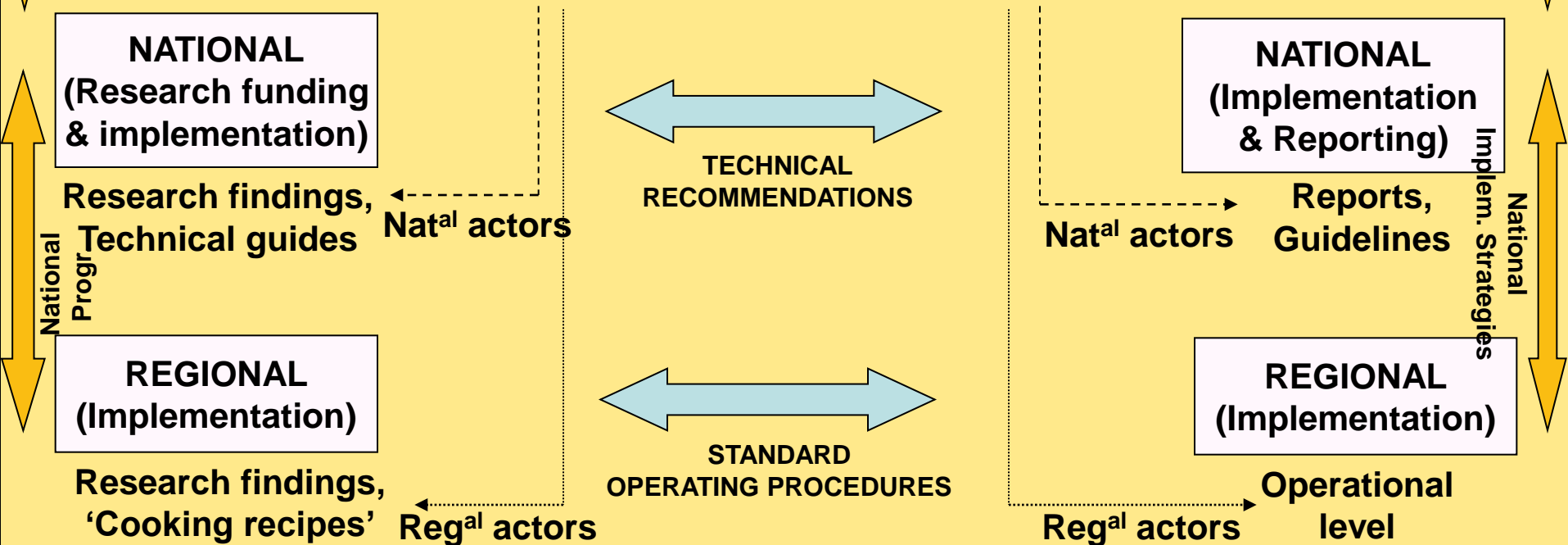
• Expected Impact

- o describe the key elements of what is expected to be achieved in relation to the specific challenge

Role for the EU: Common Implementation Strategy

INTERNATIONAL (Research funding)

Research

Translators/transformer

Policies

INTERNATIONAL (UN, EU)

Research findings, Scientific literature Int^{al} actors

Research Community "Doers of science"

"Translator/Transformer"

"Users" (e.g. Policymakers & regulators)

DEFINING THE NEEDS

TRANSLATING & UNDERSTANDING

Int^{al} actors Design and Reviews

European Research Area

Towards science-policy interfacing

ACCESS TO STATE-OF-THE-ART KNOWLEDGE

Common Implementation Strategy 2010-2012

'Science Digests'

SCIENCE-TO-POLICY & POLICY-TO-SCIENCE BRIEFS

'Policy Digests'

Common Implementation Strategy

Role for the Member States: Networking, Transfer and Implementation

NATIONAL (Research funding & implementation)

NATIONAL (Implementation & Reporting)

National Progr.

Research findings, Technical guides Nat^{al} actors

TECHNICAL RECOMMENDATIONS

Nat^{al} actors Reports, Guidelines

National Implem. Strategies

REGIONAL (Implementation)

REGIONAL (Implementation)

Research findings, 'Cooking recipes' Reg^{al} actors

STANDARD OPERATING PROCEDURES

Reg^{al} actors Operational level

The ultimate challenge?

Expertise, tools

Research recommendations
Linked to policies (short to long-term goals)

Scientific knowledge

INTERFACE

Transfer & dissem. "usability"

Data infrastructure "memory"

Demonstration, practical works at most appropriate level / scale

EU Institutions
Policy implementers
Industry
Stakeholders

Interactive interface

- **Challenge 1 –** Increasing and streamlining communication of knowledge derived from EU research projects to reach targeted audiences: needs for professional communication strategy with various vectors, e.g. layman factsheets, tailored seminars, established dialogue at all project steps, e-leaning etc.

- **Challenge 2 –** Improving accessibility and transfer of water research results through a "cascade-type" communication, e.g. factsheets, guidance documents, technical guidelines discussed and agreed among scientists, policy-makers and stakeholders, with established links to demonstration / capacity building initiatives at regional/local level

- **Challenge 3 –** Strengthening the water Science-Policy-Industry Interface to become results-oriented: linked to the above needs and challenges and requiring an effective "institutionalised" transfer mechanism with professional "mediators"

Thank you for
your attention!