

## ANNEX 3: INTERVIEWS - Jean-Philippe Torterotot



### **Jean-Philippe Torterotot**

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### **1 – Considering the different degree of challenges faced by the European member-states regarding climate change and water management, how do you see the role of Joint Programming Initiatives, networking and interdisciplinary knowledge transfer in creating a genuine single market for knowledge, research and innovation?**

Research and knowledge transfer about water resources, aquatic ecosystems and water uses are quite specific because of different key features of water issues:

- These issues take place in an “open world” and require systemic approaches because of many interactions with other sectors, with different types of activities and phenomena
- They concern a wide diversity of stakeholders, addressing the three dimensions of sustainable development
- They may address various time scales (from real time risk alert to long term asset management) and space scales (local characteristics influenced by global trends)
- They need a real interdisciplinary approach, because of the above mentioned features.

In addition, in many countries research and development teams are quite scattered. As an example, in France there are about 200 public research labs addressing, at least for part of their activities, water related research topics.

On the demand side, water public policies and effective water management are strongly structured and influenced by European directives, and among these by the Water Framework Directive. The WFD is a real trigger for research, depending on knowledge and methods which are produced along the implementation of the regulation.

These are part of the reasons for collaborating, networking, and more generally joining forces and resources in European water related - or more generally environment and agriculture related - research. In this context, JPIs and their outcomes are an important asset to reinforce research: making resources available for key topics which cannot be sufficiently addressed at national levels, creating better opportunities through extended cross-collaborations, avoiding duplicating efforts while other key issues might be insufficiently addressed...

In addition, interdisciplinary research is highly necessary but also quite complex to initiate and to develop. “Downstream driven” research topics appear to be a quite efficient way to foster interdisciplinary work and approaches.

### **2 – Innovation is vital for economic growth, for job creation and for improving the quality of life in Europe. In your opinion, what are the largest barriers that hinder innovation and technology/knowledge transfer in Europe?**

Let us focus on some barriers to innovation and knowledge transfer which may be specific to water issues, in addition to the complex features mentioned above (considering open systems, many interactions, space and time scales...).

Water is an intensively regulated sector. This can be both a barrier or a trigger, according to the specific question addressed. Public procurement regulations may also make support to innovation in the real world more complicated, because in many cases investors and owners of assets and systems are public. Different

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initiatives are dealing with this point. In addition, there is a concern about the way a single local authority may invest in a real size experiment, carrying the burden and the responsibility of a more or less risky investment, while many others may benefit by the conclusions of such an experiment. Finding ways to mutualize experiments amongst local water managers is of crucial importance.

Water management often involves and relies on long life assets, which may be difficult to adapt significantly over time without rebuilding. Regulation, pressures and societal needs may evolve quite quicker than the life cycle of such assets.

Finally, there is a strong need for reinforced dialogue and interaction between research, development and innovation on one hand, decision making and management on the other hand: co-construction of research questions, scientific accompaniment of the implementation of institutional, managerial or technological innovation... This must be based not only on mutual knowledge and understanding, but also on explicit collaboration and interaction frameworks recognizing the respective needs and stakes. For instance, time scales for scientific or operational activities are quite different, and this must be taken on board for fruitful collaboration.

#### **3 – Following the latter question, how do you assess efforts between the public and private sectors regarding research funding and development?**

Innovation and public-private collaboration on research are high on national and European agendas, in order to support both sustainable water management and economic competitiveness. Green growth objectives fully apply to water issues, on one hand by protecting resources and reducing production inputs, on the other hand by developing new technologies and know-how which are competitive internationally.

At strategic level, European initiatives like the Water supply and sanitation technology Platform - WssTP, the Water JPI and other related JPIs, the European Innovation Partnership on Water, are complementary in fostering and coordinating research, development and innovation in a multi stakeholder and multilateral perspective. Their strong interaction and collaboration guarantees for this complementarity and coherence. More generally, the growing dialogue amongst different European level initiatives and bodies on water (including thematic and professional associations) is fruitful and positive.

At local level, development of multi stakeholder R&D and innovation consortia, such as the competitiveness clusters in France, allow for more intensive and long term public-private collaboration and co-funding. Given the specific features of the water domain, such clusters need to involve both technology providers, utility operators, engineering and their R&D teams on the private side, scientific institutes, education, operators and local authorities on the public side.

#### **4 – To the public opinion, concepts such as “economic growth” and “sustainable development” are often perceived as independent. However, without a societal consensus for sustainability, governments cannot sustain the political power necessary to protect their natural and human resources. How do you evaluate public awareness, in Europe and worldwide, regarding this critical issue?**

From a personal view on media and public expression of opinions in France, I have quite a feeling that public awareness about sustainable development continuously increases, in spite of the economic crises which may favour short term choices, depending on specific issues and stakeholders. Environmental issues are not the easiest ones for understanding, because of the mixture of global and local phenomena, because of the systemic nature of many of them, because of the “hidden” or time delayed character of part of human impacts...

A recent consultation about water shows that people in France prioritize health concerns over other ecological concerns, but the latter are still considered as important by a vast majority, for example with a majority of opinions in favour of the polluter pays principle. The understanding of environmental issues increases within the population, still in a heterogeneous way according to the different topics. When it comes to taking

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sustainable development in consideration for decision making, understanding is one point, but conflicting objectives and stakes is another one: personal vs collective, short term vs long term, ...

The dependence between on one hand sustainable development and on the other hand economic growth, or economic and social well-being, is now more addressed and expressed than ever before, by policies and politics. In my view, the understanding of this dependence, for instance with green growth/economy concepts, is growing. It is still important to go on explaining, showcasing experiments and results, and involving all concerned stakeholders in the implementation of innovation.

#### **5 – What are the priorities regarding the post-2015 agenda for water and sustainable development?**

A recent action plan for water policy has been set in France, based on an assessment of public policy. The headlines of this action plan are:

- Struggle against pollutants (nitrates, pesticides, micro pollutants, heavy metals)
- Struggle against wasting water
- Recovery of the quality of aquatic ecosystems and ecological continuities, struggle against the coverage of soils by artificial surfaces
- Job creation
- Articulation of water policy with other policies impacting aquatic ecosystems.

In a wider perspective about sustainable development, the French agenda is currently addressing two major laws, one on energetic transition for green growth, under discussion at the Parliament, the other one about biodiversity in preparation. To mention examples of the legislative contents which make sense in relation to JPIs, the first law expresses the importance of research in the energy sector, in order to support decision and action, while the second considers reorganising some of the agencies active in interaction with research and transfer of knowledge/methods to practitioners.

A national strategy for ecological transition towards a sustainable development has been prepared, and has been presented to public consultation. The initial drivers are climate change, loss of biodiversity, growing scarcity of natural resources, increase of environmental health risks, which all are concerns for the water sector. Recommendations and targets address the following issues:

- Develop territories which are sustainable and resilient
- Enter into a circular and low carbon economy
- Prevent and reduce environmental, social and geographic inequalities
- Create new economic and financial models
- Accompany the ecological mutation of economic activities
- Turn production of knowledge, research and innovation towards ecological transition
- Educate, teach and raise awareness for ecological transition and sustainable development
- Mobilize stakeholders at all levels
- Promote sustainable development in Europe and internationally.

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