



Scientific Support to the EU Strategy for the Danube Region and the Danube Water Nexus project

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***UNECE and ISRBC Sava River Basin Workshop
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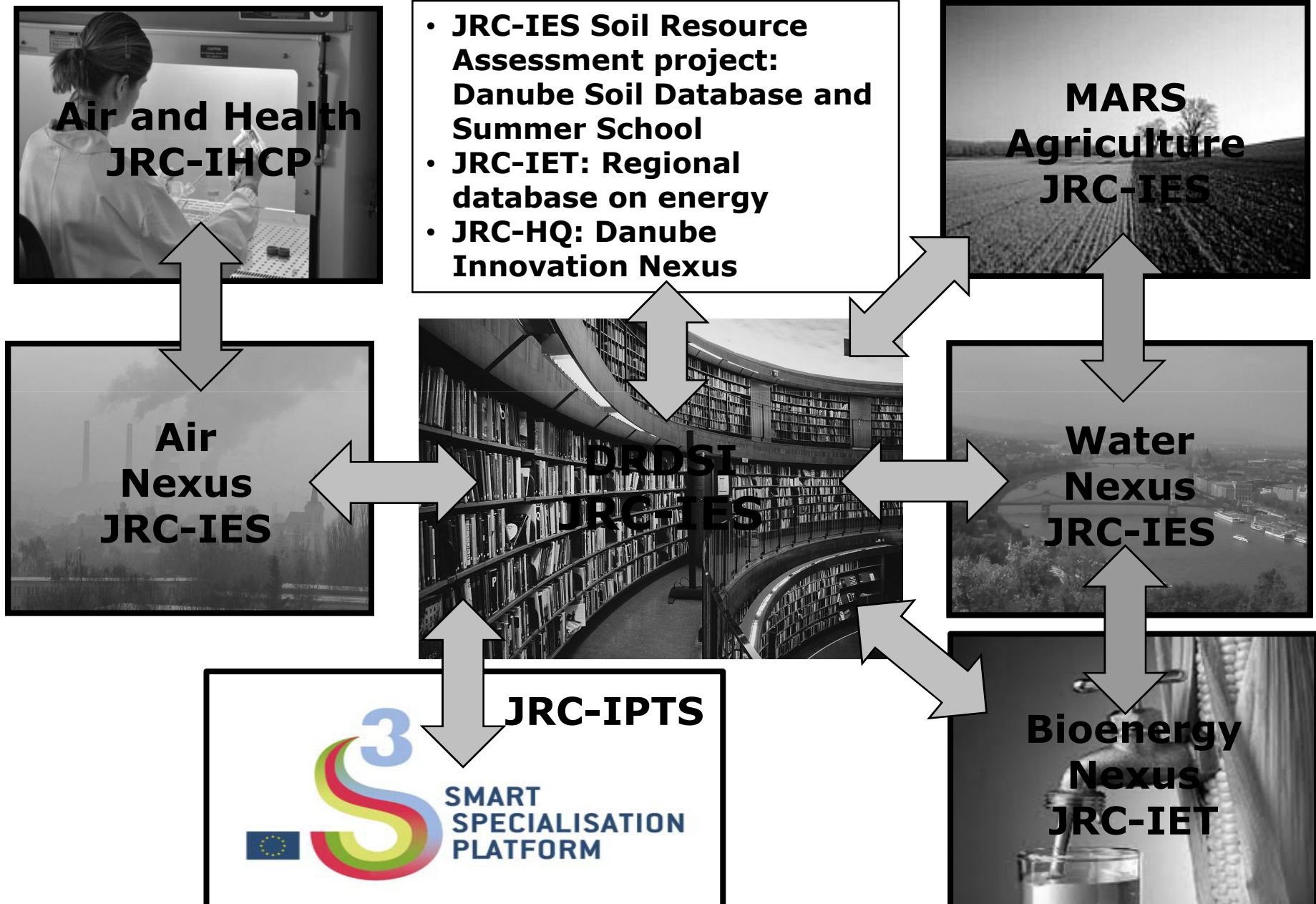


The rationale for the JRC action in the Danube Region

- Contribute to the reinforcement of ties and cooperation amongst the scientific community of the Danube Region
- Help decision-makers and other stakeholders to identify the policy needs and actions needed for the implementation of the EU Strategy for the Danube Region (EUSDR)
- Tackle challenges and priorities of the region in an integrated manner by anchoring the EUSDR in the EU 2020 Strategy



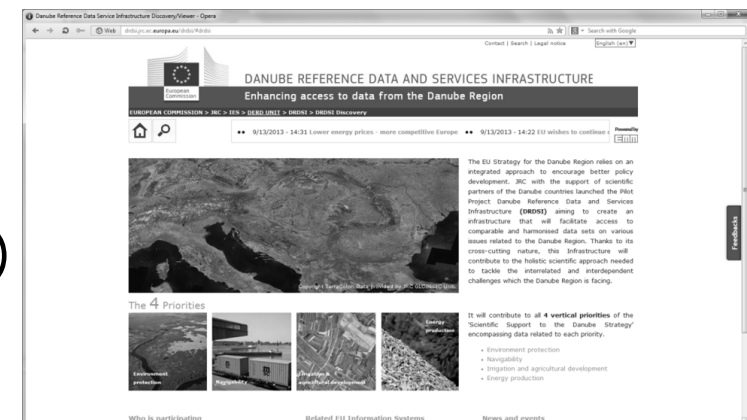
Addressing key scientific needs in the implementation of the EUSDR



Danube Reference Data Spatial Infrastructure: A single access point to Danube Region data

- DRDSI Design and Development (2014)
- Inventory of the JRC data as starting point followed by an inventory of external sources and collaboration (2014)
- Operations and development of DRDSI (2014-2015)
- Pilot and prototype platform on Monitoring Biodiversity of Danube Delta (2015-2016)
- Use of novel technologies

<http://drdsi.jrc.ec.europa.eu> (release 1)

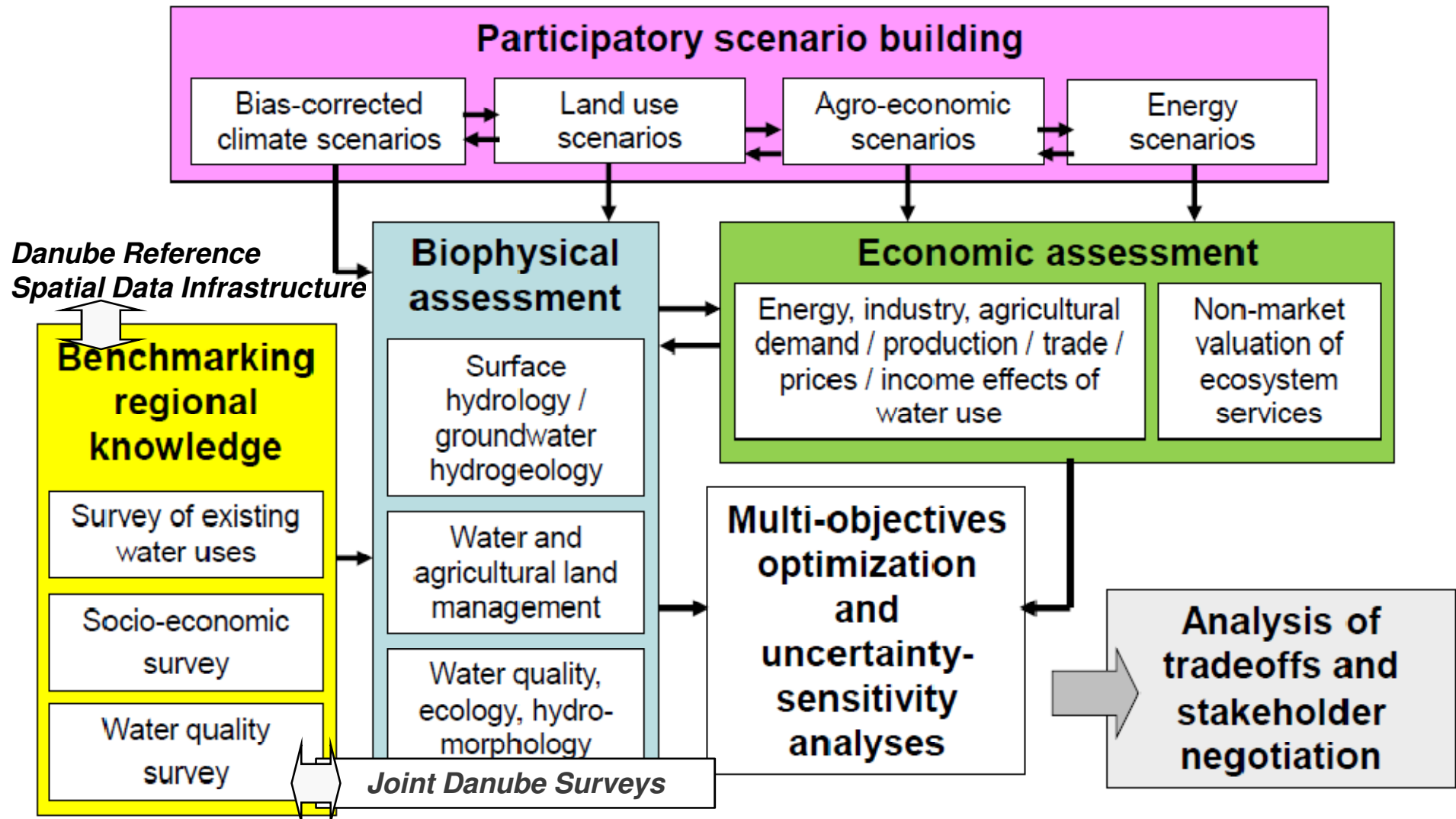




Danube Water Nexus: Support decision making about sustainable futures of water resources

- **Scenarios of environmental and economic impacts** of alternative water allocation measures across competing water-using sectors, including an assessment of the provision/valuation of ecosystem services
- Methodology for modelling of water resources in the Danube river basin, integrating quantity, quality, ecology and hydro-morphology, **in coordination with other tools at national and river basin level** and extension to non-EU countries of the Danube Region
- Supporting efforts of countries and international cooperation bodies in the **implementation of the Water Framework Directive** and planning of medium and long-term actions for the 2nd and 3rd cycles of River Basin Management Plans

From baselines to solutions





A collaborative assessment

- **Build on existing experience** deriving from national projects and international initiatives (e.g. ICPDR, ISRBC, KLIWAS, GLOWA-Danube, Danube Flagship Project DREAM)
- Establish a **Transboundary Modelling Partnership** aiming at the development of a multi-model ensemble for the Danube Region with a common database
- Facilitate **joint building of assessment capacity** and contribute to harmonization across countries

The role of sub-projects

- **Water Quality Modelling**

A follow up to the Resolution 3/3 at the 16th Ordinary Meeting of the ICPDR, December 2013:

g) asks the Secretariat to continue in dialogue with the JRC on basin wide modelling and pollution load assessment

- **Irrigation Tisza**

Formulate new model, include economics, optimisation to assess which would be the best strategies to cope with decreasing amounts of surface water in the lower Tisza area

- **Sava river basin**

Join efforts with ISRBC and UNECE in the Sava Water Nexus assessment



The timetable

- Water quality monitoring in the ICPDR Joint Danube Survey 3 (2013-2014)
- Models and scenarios inventory (2014)
- Transboundary hydro-economic multi-model ensemble for the Danube with a common database (2014-2015)
- Benchmarking models for the Danube (2015)
- Scenarios of environmental and macro-economic impacts of alternative water allocation measures across competing water-using sectors (2015)
- Dissemination and training (2015)
- Feeding the WFD policy process (2016)



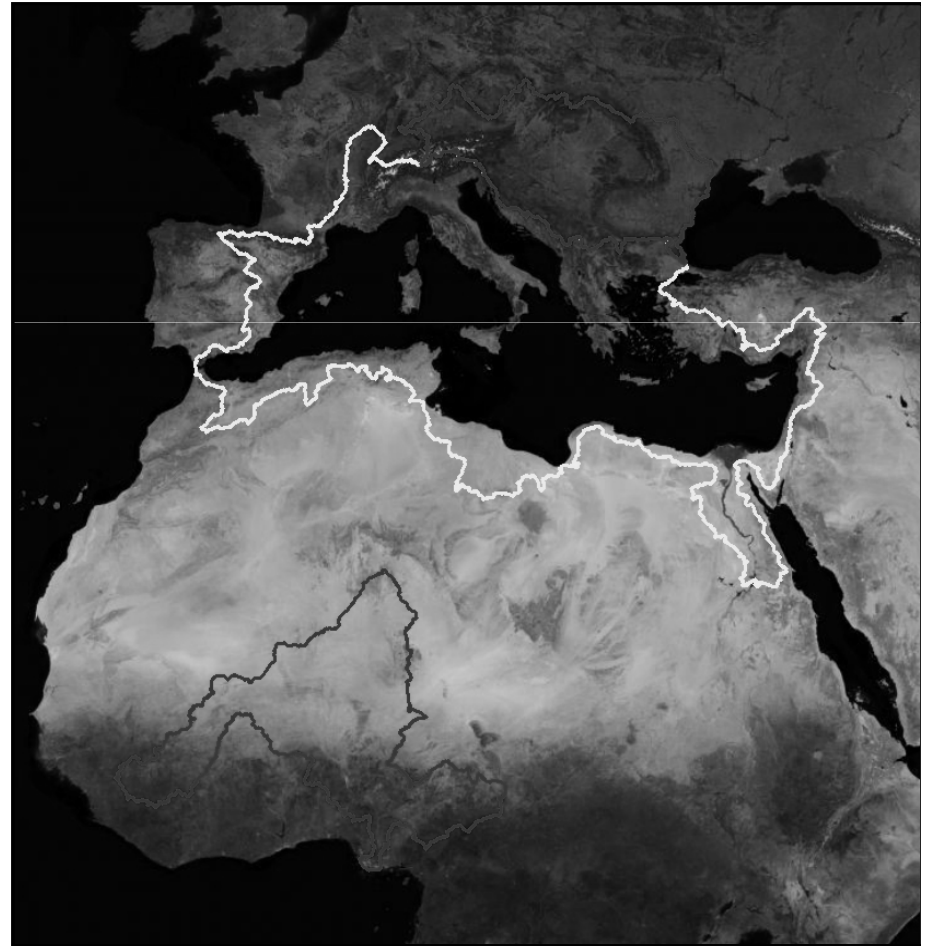
Some networking activities

A non-exhaustive list

- GEO BalkanGeoNet Workshop (Novi Sad 09/2013)
- Macro-Regional Water Conference (Budapest 09/2013)
- 2nd Annual Forum of the EU Strategy for the Danube Region (Bucharest 10/2013)
- Meeting ICPDR on data exchange (Vienna 11/2013)
- 3rd meeting of modelling experts (Ispra 01/2014)
- High-level event co-organised with the Austrian government in Vienna on 26th June 2014 (date tbc)

Going beyond Europe

- The Danube as element of a broader **macro-regional perspective** for the assessment of the Water-Agriculture-Energy-Ecosystem Services Nexus
- Focus on Europe and Africa: **Danube-Niger** river basins and the **Mediterranean region**
- Deliver **integrated impact assessments** of water resources in the face of increasing trends of global population, urbanisation, pollution, over-exploitation, climate change





Thank you for your attention



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