Research Data infrastructures for Environmental related Societal Challenges
Organizers

Co-chairs

Donatella Castelli (CNR ISTI)
Odile Hologne (INRA)
Michel Schouppe (EC DG RTD)

Program Committee members

Mirko Albani (ESA)
Johannes Keizer (FAO)
Silvie Joussaume (CNRS)
Andrew Treolar (ANDS)
Max Craglia (JRC)
Philip Weaver (Seascape C. Ltd)
Objectives

1. What are the gaps and needs to promote better and more social-aware science?

2. How the world of science and innovation is changing with data and computing infrastructures?

3. How to make it happen?
## Agenda (morning)

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<th>Time</th>
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<td>10:00-10:15</td>
<td><strong>Welcome and Objectives:</strong> Donatella Castelli, CNR ISTI; Odile Hologne, INRIA; Michel Schouppe, Policy Officer Climate action and Earth observation, DG Research &amp; Innovation - European Commission</td>
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<td>10:15-11:30</td>
<td><strong>SESSION1 - Data infrastructure to address Climate change, marine and agricultural sustainability</strong></td>
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<td>• Data and computing infrastructures for climate modelling - Sylvie Joussauze, CNRS, Institut Pierre Simon Laplace</td>
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<td>• Closing the data/information gaps for marine policy: from local to global perspectives - Julian Barbiere, UNESCO-IOC</td>
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<td>• Data requirements for addressing environmental challenges faced by agriculture - Michèle Tixier Boichard, INRA</td>
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<td>11:30-12:00</td>
<td>Coffee Break</td>
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<td>12:00-13:30</td>
<td><strong>SESSION2 - Operational solutions, best practice and trends in infrastructures across the globe (Part I)</strong></td>
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<td>• The Copernicus Climate Change Service of the EU - Baudouin Raoulit, ECMWF</td>
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<td>• The European Marine Observation and Data Network (EMODnet) - Philip P.E. Weaver, Seascape Consultants Ltd</td>
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<td>• Building on iMarine for fostering Innovation, Decision making, Governance and Education - Donatella Castelli, CNR ISTI</td>
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<td>• DataONE: Facilitating Discovery, Access and Use of Scientific Data - William Michener, University of New Mexico</td>
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<td>• GEOSS Common Infrastructure and the Discovery and Access Broker - Stefano Nativi, CNR</td>
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<td>13:30-14:30</td>
<td>Lunch</td>
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Agenda (afternoon)

14:30-16:00
SESSION 3 - Operational solutions, best practice and trends in infrastructures across the globe (continued)
- AgInfra – Information Infrastructure for agriculture: lessons learned in the agINFRA project - Johannes Keizer, FAO
- INSPIRE and Environment Data in the EU - Andrea Perego, EC JRC
- Australia’s Integrated Marine Observing System: Data use and uptake. Can we close the loop? - Sebastien Mancini, IMOS – University of Tasmania, Australia
- Environmental Related Data Intensive R&D Activities and Infrastructures in South Africa - Anwar Vahed, CSIR, South Africa
- DIAS, Data Integration and Analysis System and agricultural decision support - Seishi Ninomya, Institute of Sustainable Agro-ecosystem Services, University of Tokyo, Japan

16:00-16:30
Coffee Break

16:30-17:20
SESSION 4 – Panel and group discussion on Data and computing infrastructures for more social-aware science
- Hervé Caumont, Terradue
- Jean-Pierre Villette, Institut de Physique du Globe - CNRS & Belmont Forum
- Gelsomina Pappalardo, CNR-IMAA & ESFRI ENV SWG chair
- Michel Schouppe, DG Research & Innovation - European Commission
- Augusto Burgueño-Arjona, Head of e-Infrastructures Unit, DG Communications Networks, Content and Technology - European Commission

17:20-17:30
Summary and Conclusions, Donatella Castelli, CNR ISTI; Odile Hologne, INRIA; Michel Schouppe, Policy Officer Climate action and Earth observation, DG Research & Innovation - European Commission
Panel and group discussion

Data and computing infrastructures more social-aware science
We are witnessing worldwide a high diversity of e-Infrastructures addressing notably the food, marine and climate challenges. Each of these digital infrastructures contributes to a very diversified “global ecosystem” of data infrastructures that often have been implemented in parallel by/for specific communities of practice.

• What about openness of e-infrastructure services to other communities than those for which they have been initially designed for? And what about openness to third-party applications and other e-infrastructures?

• Are there commonalities and synergies that could be exploited to maximise a combined exploitation of these e-infrastructures?

• What are the major issues to be solved to make this feasible?
Data infrastructures which are designed to address environmental-related challenges should not only serve science and knowledge creation; they also play a role in contributing to new data-driven innovation processes.

- What is the potential of e-Infrastructures to enable information services on the market place?
- Are infrastructure actors doing enough in terms of public private partnerships?
- How is the open data trend affecting e-Infrastructures today?
Knowledge creation to address planetary challenges such as climate change, food security, marine resources conservation increasingly rely on open, cross-border collaboration and on data that are produced in multiple scientific, industrial, social domains.

• Large gaps still exist in terms of exploiting fully these data resources in addressing socio-economic important questions. What should be done in order to reduce these gaps?
Question D

Several examples of data e-Infrastructures addressing environmental challenges have been presented today. The presentations have highlighted the many technical issues that arise in enabling optimal use of research data and methods in this area.

• How e-Infrastructures addressing environmental challenges differ from other kind of e-Infrastructures?

• Can they profit from experiences done in developing e-Infrastructures addressing other sectors?
Summary of the discussion

1. What are the gaps and needs to promote better and more social-aware science?
2. How the world of science and innovation is changing with data and computing infrastructures?
3. How to make it happen?