

COOPEUS: TransAtlantic cooperation in the field of environmental research infrastructures



COOPEUS Background

Expand the International cooperation between the EU and the USA on common data policies and standards relevant to environmental Research Infrastructures

EC funded project

FP7-INFRASTRUCTURES

Duration: 09/2012 – 08/2015

Matching support for US partners from NSF

SAVI mechanism

COOPEUS Participating Environmental Research Infrastructures:

<u>Focus Area</u>	<u>EU</u>		<u>USA</u>
Atmospheric radar	Eiscat	–	AMISR
Ocean observations	EMSO	–	OOI
Biodiversity	Lifewatch	–	DataOne
Solid Earth dynamics	EPOS	–	IRIS/UNAVCO
Carbon observations	ICOS	–	NEON

COOPEUS Consortium

EU Partners

- UNIVERSITAET Bremen (Uni-HB) (the Coordinator) -
- ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA (INGV)
- EISCAT SCIENTIFIC ASSOCIATION (EISCAT)
- COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES (CEA)
- AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)
- KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT (KNMI)
- ILMATIETEEEN LAITOS (FMI)
- UNIVERSITA DEGLI STUDI DELLA TUSCIA (Unitus)
- MARINE INSTITUTE (MI)

Partners from USA

- UNIVERSITY OF WASHINGTON (UW)
- WOODS HOLE OCEANOGRAPHIC INSTITUTION (WHOI)
- THE REGENTS OF THE UNIVERSITY OF CALIFORNIA (SCRIPPS)
- NATIONAL ECOLOGICAL OBSERVATORY (NEON)
- INCORPORATED RESEARCH INSTITUTIONS FOR SEISMOLOGY NON-PROFIT CORPORATION (IRIS)
- UNAVCO INC (Unavco)
- Advanced Modular Incoherent Scatter Radar (AMISR)
- DataONE

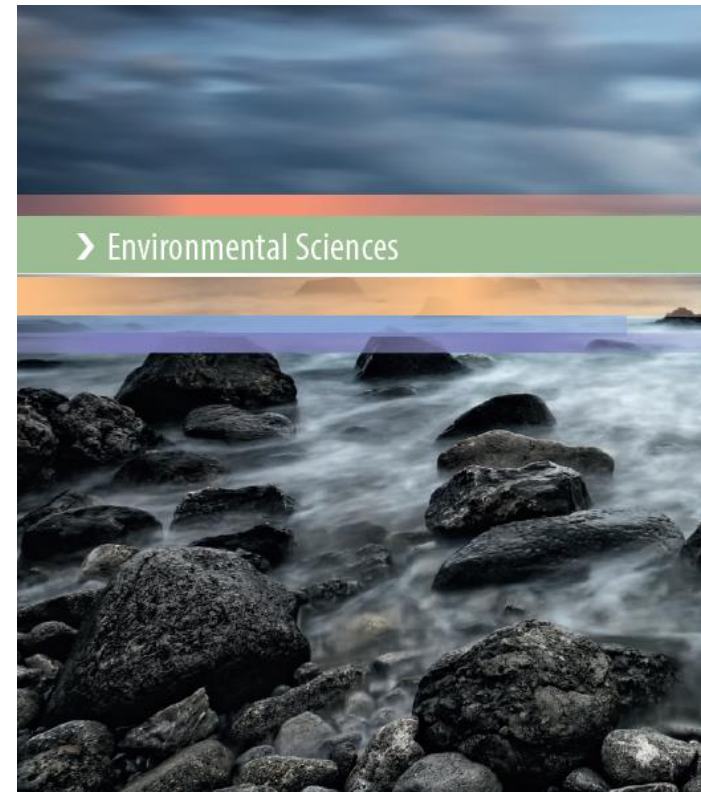
COOPEUS VISION

- COOPEUS has to contribute to roadmapping processes by providing relevant scientific information



Forward-looking strategic thinking about infrastructures

ESFRI Brochure:
European Research Infrastructures with global impact
Some examples from the ESFRI Roadmap



COOPEUS VISION

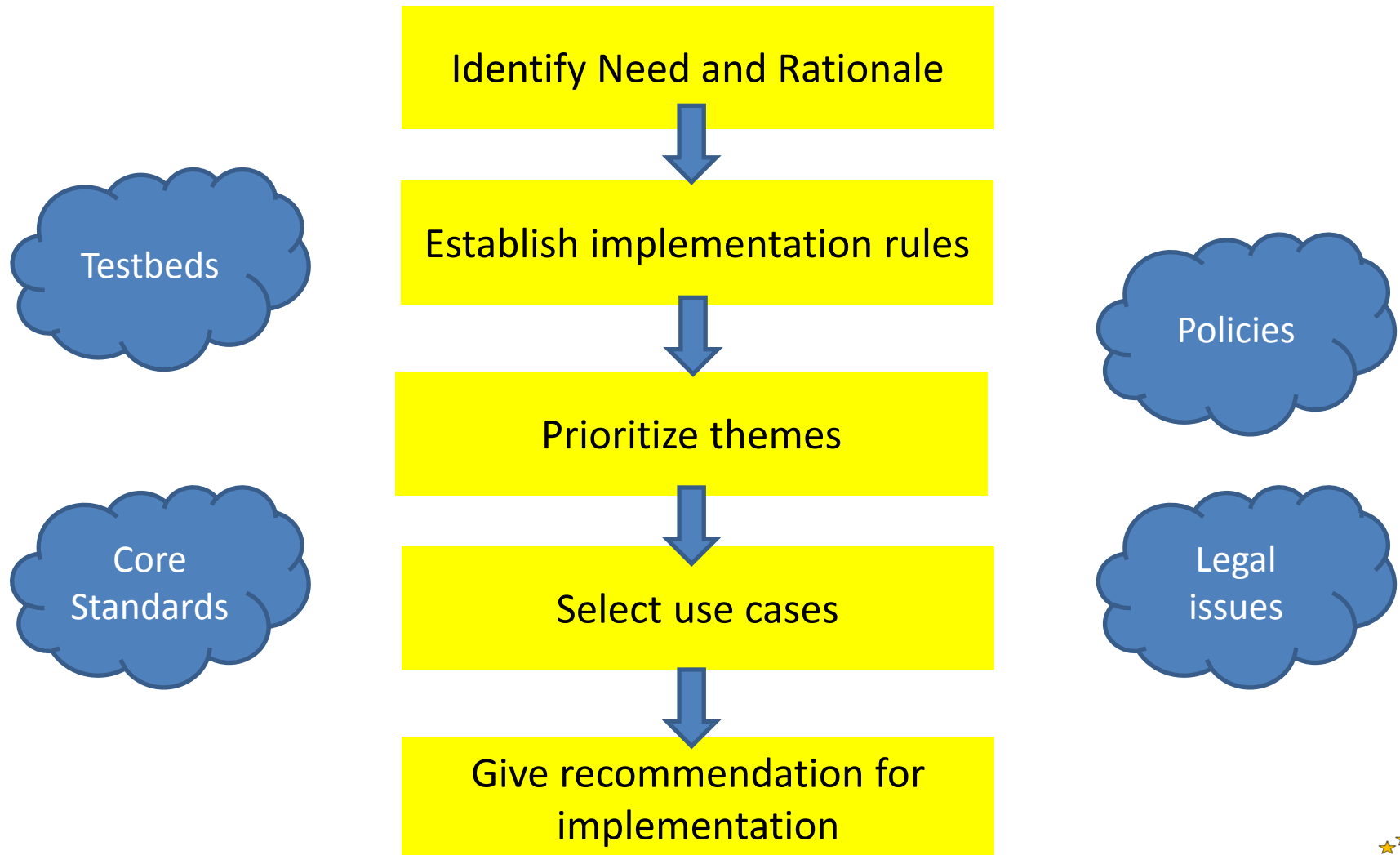
CAVEATS

- Infrastructures **are very costly** and the funding available for non-infrastructure oriented research **necessarily shrinks**.
 - One should try to **preserve the ability to respond quickly and creatively to new discoveries**
- **Roadmapping can be a victim of its own success** If an attempt is made **to set priorities across disparate fields a loss of specificity and focus** can occur and the outcomes of the exercise could become less actionable

OECD Global Science Forum, Report on Roadmapping of Large Research Infrastructures, December 2008

COOPEUS

Framework - Overall Structure - Workflow



Addressing the Challenges

- Architectures have to be: Interoperable, Scalable, Extensible and Adaptable
- Using a Brokering Approach
 - Geographic and environmental information systems are calling for **integration of metadata and vocabularies**
 - Information brokering is **providing arbitration between user and provider**

CONCLUSIONS

COOPEUS

- is meant to explore benefits of transatlantic and cross-disciplinary cooperations in the field of environmental research infrastructures
- will produce new concepts on how to consolidate knowledge and information to enable cross-disciplinary use
- Exploring standards and brokering approach to improve multidisciplinary research

Further information on COOPEUS project

[HTTP://WWW.COOPEUS.EU](http://www.coopeus.eu)