



Environmental Research  
Infrastructures Providing Shared  
Solutions for Science and Society

**ENVRI\_plus:** Toward Joint Strategy and  
Harmonized Policies for  
**Access to Research Infrastructures**

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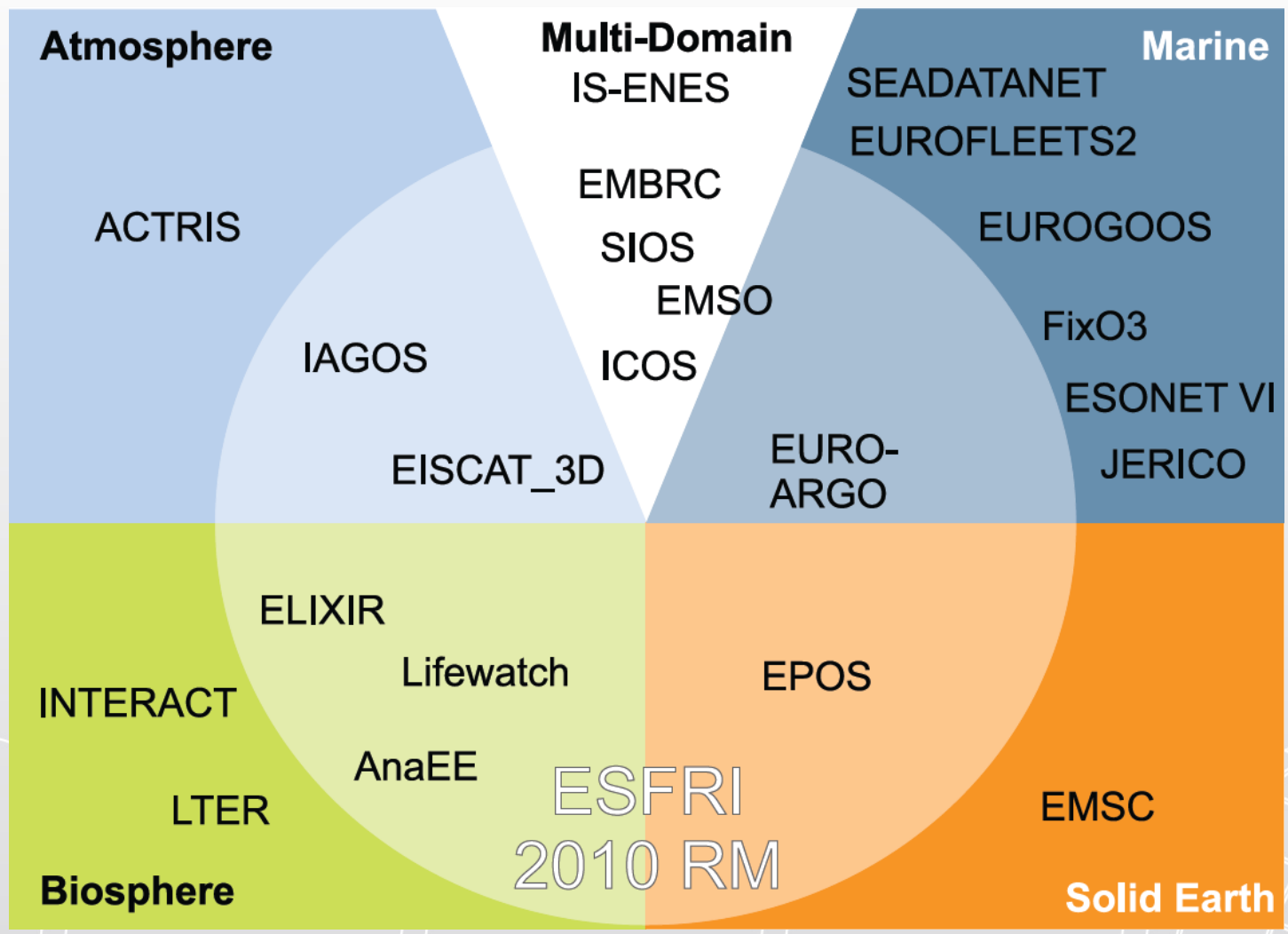
The objective of ENVRI<sup>PLUS</sup> is to provide common solutions to shared challenges for European Environmental and Earth System Research Infrastructures (RIs) in their efforts to deliver new services for science and society.



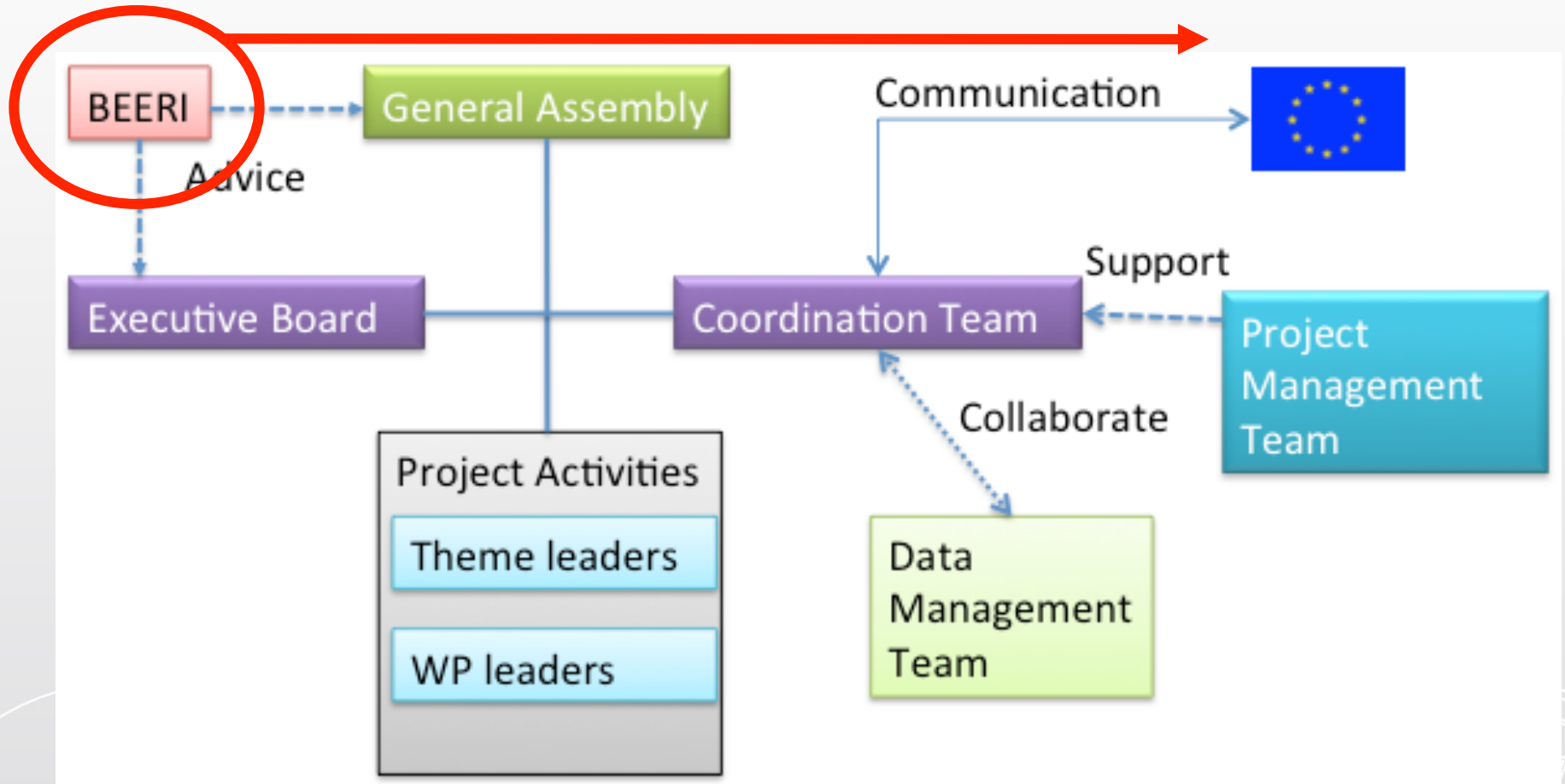
22 Research Infrastructures (11 ESFRIs),  
1 ERIC, 2 Associations; total 37 Beneficiaries



# Consortium coordinated by ICOS ERIC (Helsinki)



# Project Structure



# Project Themes

1 Innovation

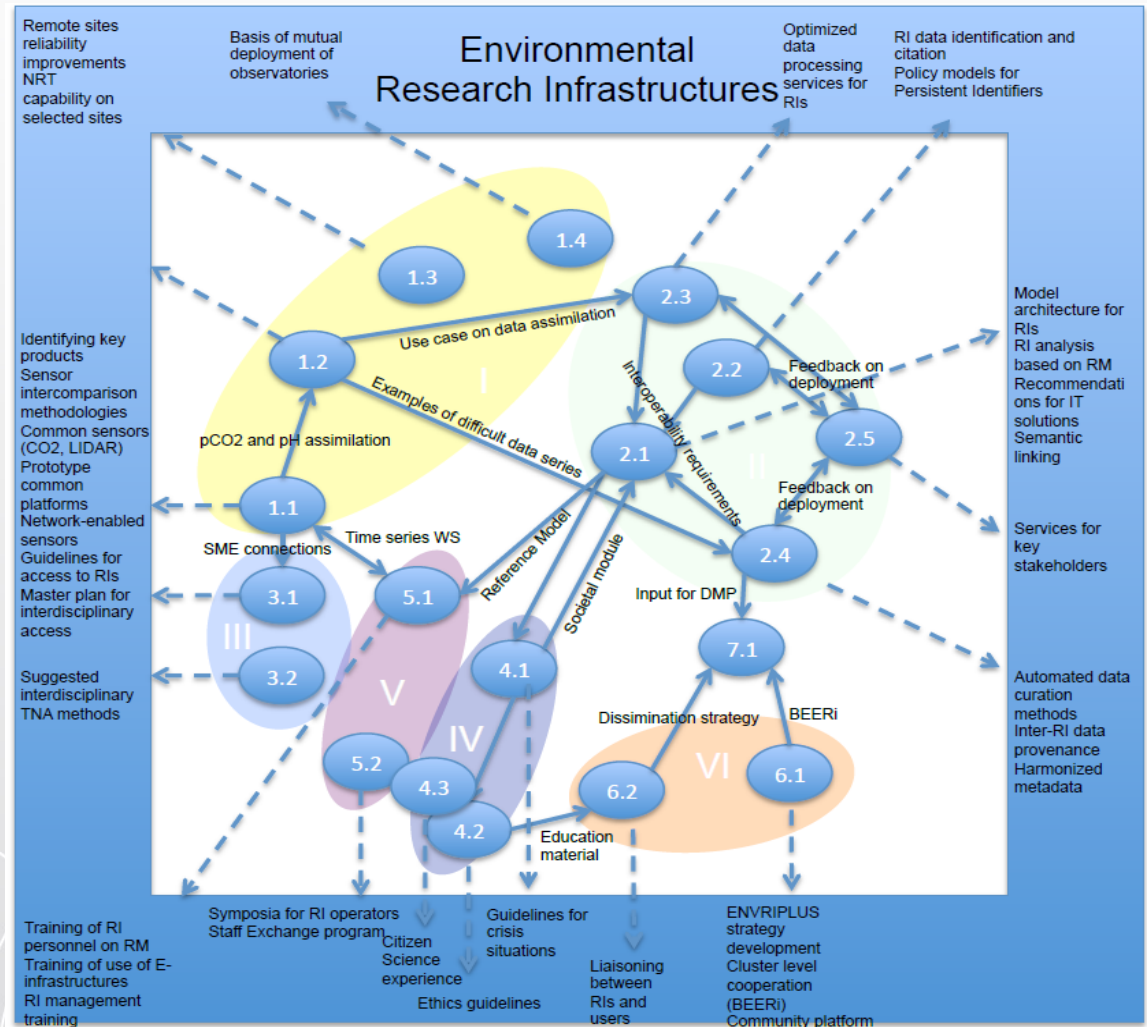
2 Data

3 Access

4 Societal Relevance

5 Knowledge transfer

6 Dissemination





**Generate common solutions for shared information technology and data related challenges of the RIs**

in data service discovery and use, workflow documentation, data citations methodologies, user characterization and interaction.

Theme coordinator: Zhiming Zhao  
(Keith Jeffrey, Cees des Lat, Wouter Los)

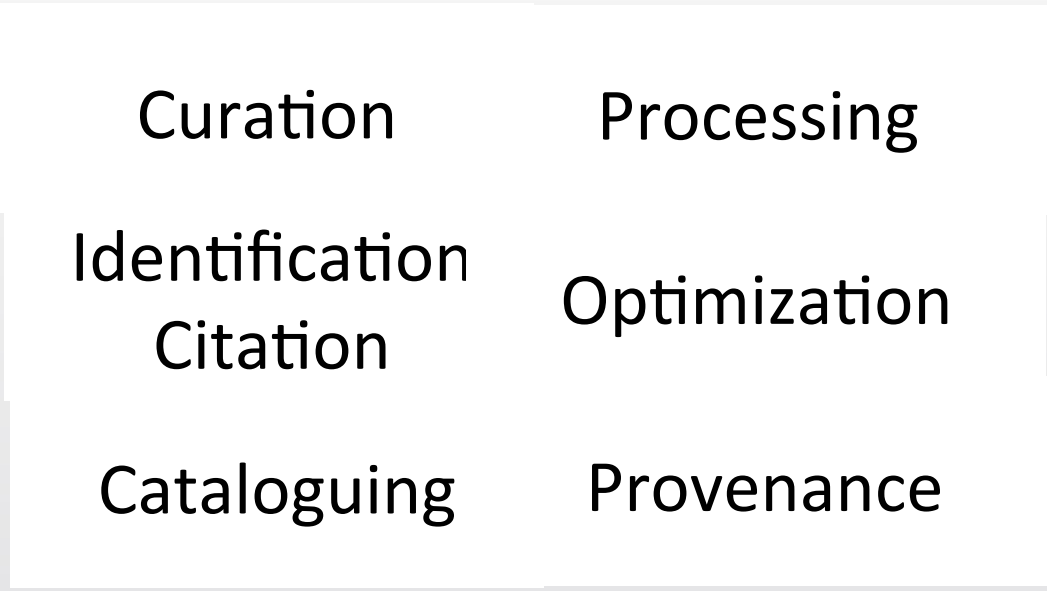
## Data Theme

1. Lack of common models, rules and guidance for research data workflow documentation
2. Difficult to discovery and access data and services from heterogeneous sources,
3. Difficult to cite data among different research infrastructures
4. Difficult to obtain the provenance data from different infrastructures
5. Lack of support for communities from different research infrastructures
6. ...

- WP 5 Reference model guided RI design
- WP 6 Inter RI data identification and citation services
- WP 7 Data processing and analysis
- WP 8 Data curation and cataloguing
- WP 9 Service validation and deployment



# Common data services



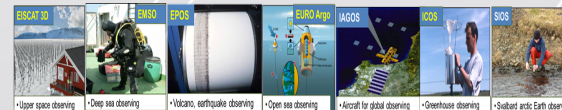
Common operations  
customized to  
specific RIs.

1. A common understanding for smart  
RI data solutions

2. Prototype prioritized common RI  
data solutions

3. Bring common RI data solutions  
into practice

RI specific  
requirements  
and common  
abstractions



## Theme 3: Access to RIs

Main Objective: Develop **harmonized policies** for access (physical and virtual) for the environmental RIs, including access services for the multidisciplinary users;

WP 10

Governance for sustainable and adjustable access to RIs

WP 11

New Concepts and Tools for Physical Access

Theme coordinator: Ingrid Mann

(Abad Chabi, Gelsomina Pappalardo, Sabine Phillipin)

Access Theme

WP 10

develop:

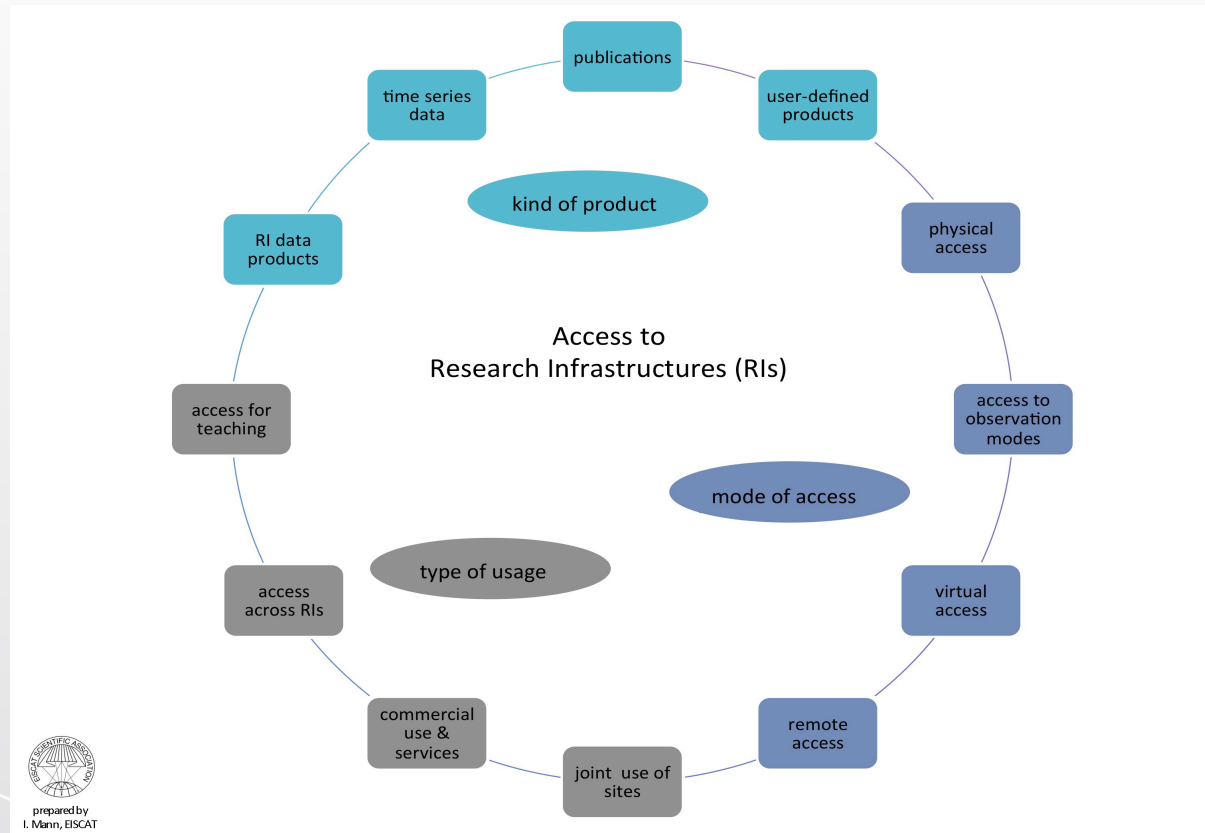
**Guidelines**

**Master Plan**

**RI Strategy**

take into account  
experience from

WP11



# Theme 3: Access to RIs

Access Theme

WP 10

develop:

**Guidelines**

**Master Plan**

**RI Strategy**

take into account  
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WP11

Type of Access	Expected outcome of activities
Kinds of products	
Access to RI data products	Harmonized data policies in guidelines
Access to time-series data	Common archiving & data management strategy in master plan
Access to publications	Solutions for Green Open Access offered by RIs in guidelines
Access to user-defined products	Solutions for user platforms in guidelines
Mode of access	
Physical Access	Master plan and guidelines
Access to observation modes	Master plan and guidelines
Virtual Access	Common solutions in guidelines
Remote Access	Common solutions in guidelines
Type of usage	
Joint use of sites	Master plan and guidelines
Commercial use & services	Common approach to legal, ethical, operational issues
Access across RIs	Master plan and guidelines
Access for teaching	Master plan and guidelines
Common	
	RI workflow to update and revise master plan and guidelines

## RI access across disciplines

- **HYTTIÄLÄ** boreal forest site (SMR) including its ICOS, ACTRIS, ANAEE components (UHEL)
- **LA REUNION** Island multi-disciplinary platform (CNRS) a research infrastructure located in southwestern Indian Ocean (French overseas department).
- **Mt. ETNA INGV Observatory**, a multi-disciplinary RI, contributing to the EPOS-ESFRI project and managed by INGV.
- SOERE-ACBB **multidisciplinary platform**. SOERE ACBB multidisciplinary set of platforms in three different parts of France. (INRA\_ANAEE)
- Research Vessels ERVO (**European Research Vessels Operators**).

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**Metadata:** The data need to come with sufficient **documentation and information** for the researcher to be able to exploit the data and the information needs to enable the user to assess the quality of the data.

**Limit the data volume:** Less is more. Procedures need to be developed for the archiving and the de-commissioning of the data. Ultimately RIs have to decide what data volume to store for long time and who will take over the data toward the end of the lifetime of the RI. It is also important to keep in mind that usage of data does not increase linearly with its volume.

**Data rights:** RIs need to define the conditions for external data use, the interfaces between RI-defined data products and user-defined data products. The usage of data beyond basic research (commercial – societal relevance) needs to be negotiated.

This planning requires a strong link between the governance and the user communities of the RIs with other stakeholders. The discussion needs to be made from a point of view of **aiming toward high scientific standards while at the same time addressing broad user communities** from different disciplines. The process of making these decisions needs to be transparent and flexible. Most RIs have these problems in common

# Access Theme Participants

- Participants:
  - Abad Chabbi (INRA\_ANAEE), *Task Leader*
  - Anders Tjulin , (EISCAT)
  - Ari Asmi, (FMI, UHEL)
  - Florian Haslinger (ETHZ\_EPOS)
  - Gelsomina Pappalardo (ACTRIS, CNR), *Task Leader*
  - Ingrid Mann (EISCAT), *Theme Leader*
  - Jon Børre Ørbæk (RCN\_SIOS)
  - Laura Beranzoli (INGV EMSO)
  - Massimo Cocco (INGV EMSO)
  - Sergio Andreozzi, (EGI)
  - Sabine Philippin (CNRS\_ACTRIS), *Task Leader*

We look forward to  
collaboration with the  
EGI community

and other

# Acknowledgement



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