



DI4R 2018:

Analysis of National Nodes as foundation for the European Open Science Cloud

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National Node Working Group of e-IRG

Lisbon, 10th October 2018

The e-IRG National Nodes Working Group

- Following the e-IRG Roadmap 2016 and its recommendations, which also appear in the Competitiveness Council conclusions (28/29 May 2018):
 - *“ENCOURAGES **Member States** to invite their relevant communities, such as **e-infrastructures, research infrastructures, RFO’s and RPO’s, to get organized** so as to prepare them for connection to the EOSC and CALLS ON the Commission to **make optimal use of** ongoing projects, existing expertise and knowledge available via existing initiatives, such as **ESFRI, eIRG, GO FAIR** and others*”

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Decision to form a Working Group with intend to:

- Analyze the current status in EU countries and
- Develop recommendations/name good practices **towards national e-Infra Commons**, to ease integration at EU level

Process:

- **Questionnaire via e-IRG members** on the
 - organisation of national e-Infras (including data infrastructures)
 - coordination for national horizontal (generic) e-Infras
 - domain-specific national nodes

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Preliminary outcomes



Responses
from
27 countries

**Publication will be presented at the e-IRG Workshop in Vienna (20-21 Nov)
Attached to the EOSC Stakeholder Forum, EOSC launch event (21-23 Nov)**

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Preliminary outcomes

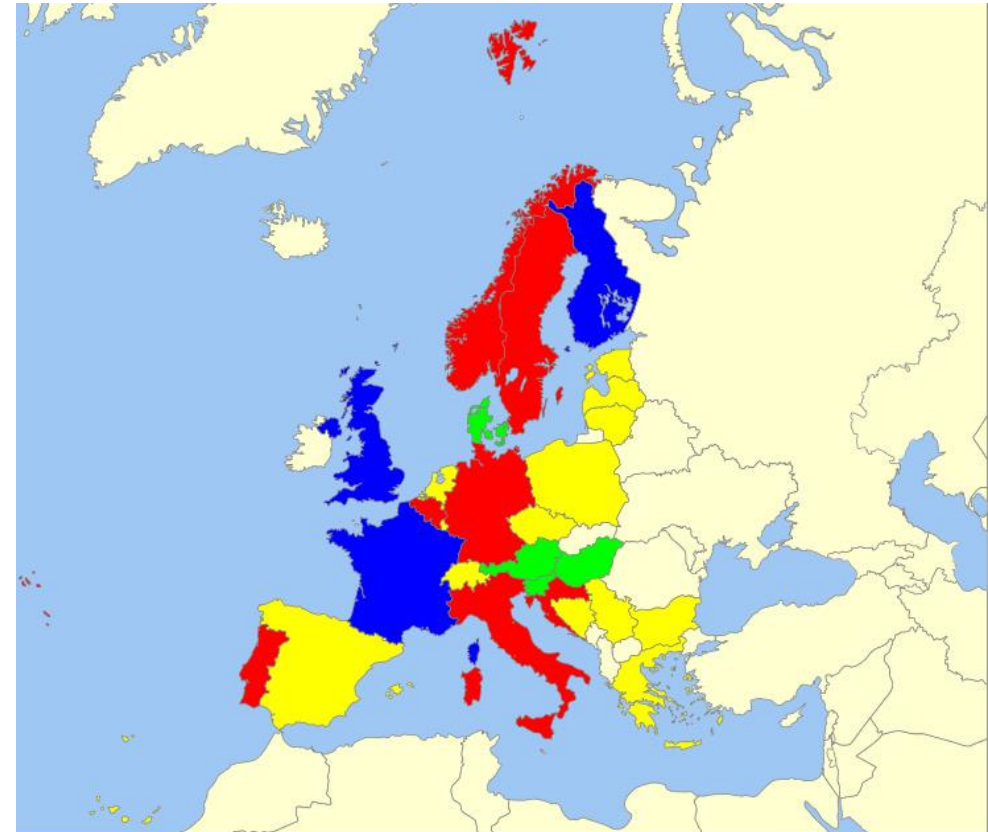
- Classification of countries according to the number of e-infrastructure provisioning organizations

Category A: Green = 1 provider

Category B: Yellow = 2-3 providers

Category C: Red = more providers

Blue for unclear replies



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Preliminary outcomes

- Today **some** countries have a **single coordinating e-Infra service entity**
 - data infrastructures are usually separate from computing and networking ones; sometimes even **competing** entities
- **Most** countries show good level of coordination
- There are examples of **bottom-up multi-stakeholder coordination of both generic (network-computing-data) and domain-specific ones**
 - As part of a forum with the corresponding ministry as an observer
- Some countries have **on-going processes aiming at coordination** of e-Infras initiatives and/or coordination of e-Infras and domain Ris

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Preliminary outcomes

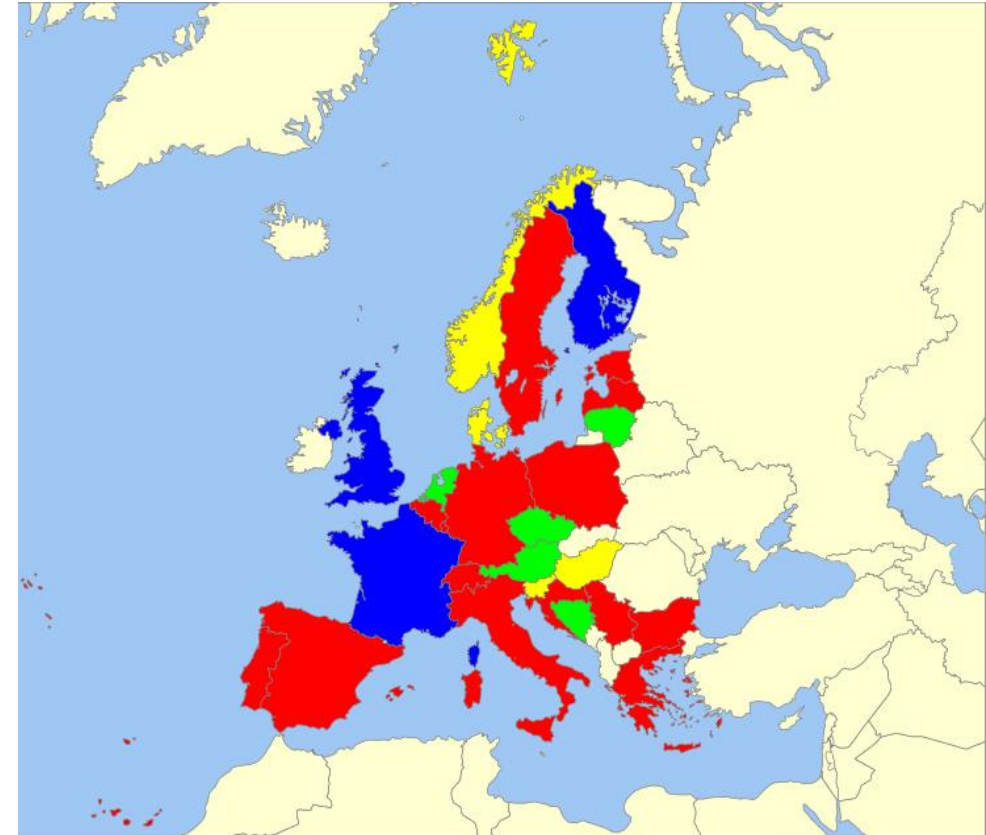
- Governance of countries according to governing body characteristics of the e-infrastructure providing organizations in general

Green = Research Inst., Univ., Users

Yellow = Ministry

Red = Mixed case

Blue = unclear replies



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Preliminary outcomes

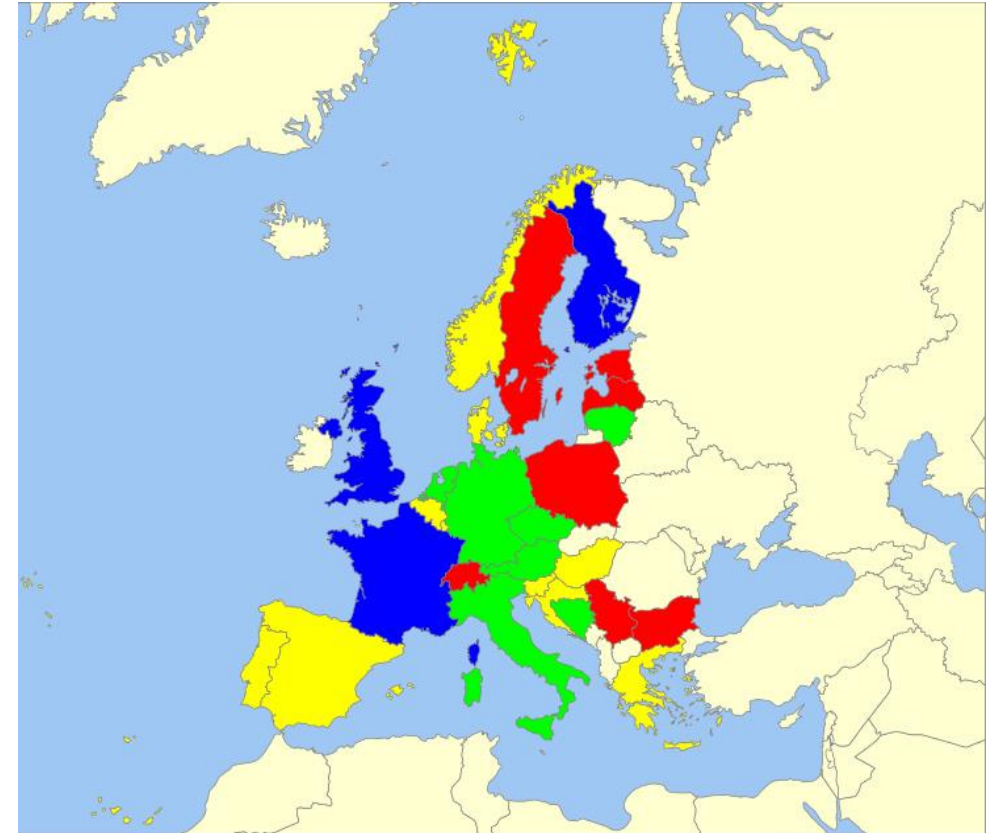
- Governance of countries according to governing body characteristics of the network e-infrastructure providing organizations

Green = Research Inst., Univ., Users

Yellow = Ministry

Red = Mixed case

Blue = unclear replies



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Preliminary outcomes

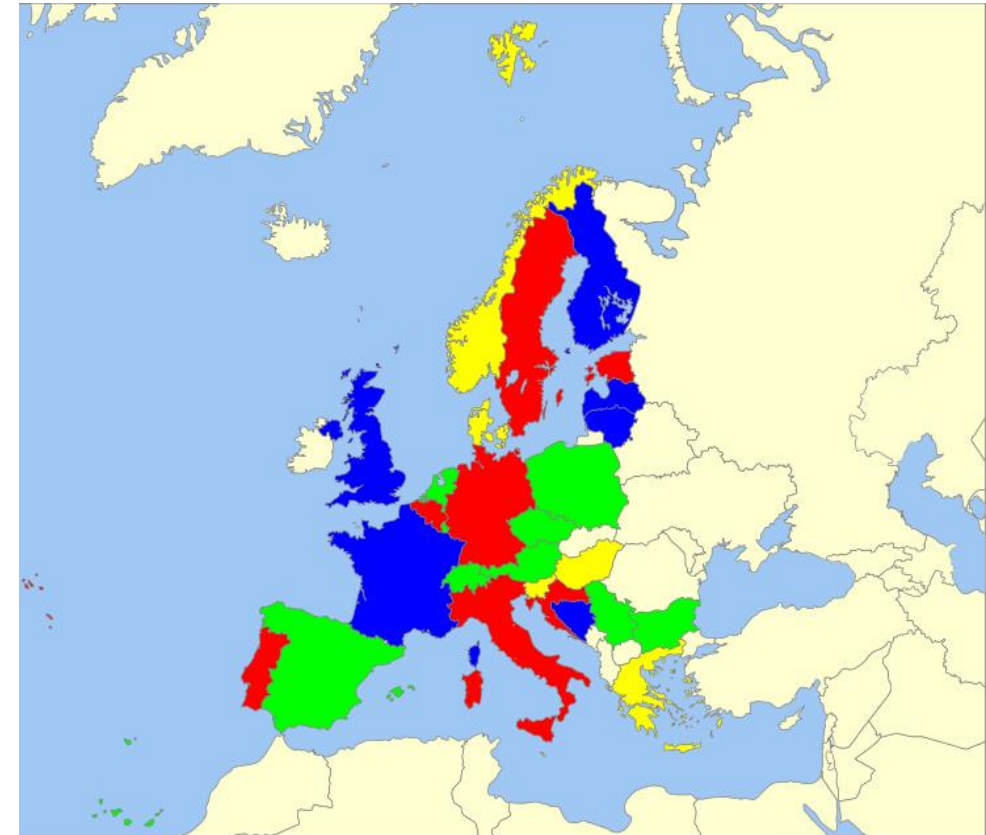
- Governance of countries according to governing body characteristics of the HPC e-infrastructure providing organizations

Green = Research Inst., Univ., Users

Yellow = Ministry

Red = Mixed case

Blue = unclear replies



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Preliminary outcomes

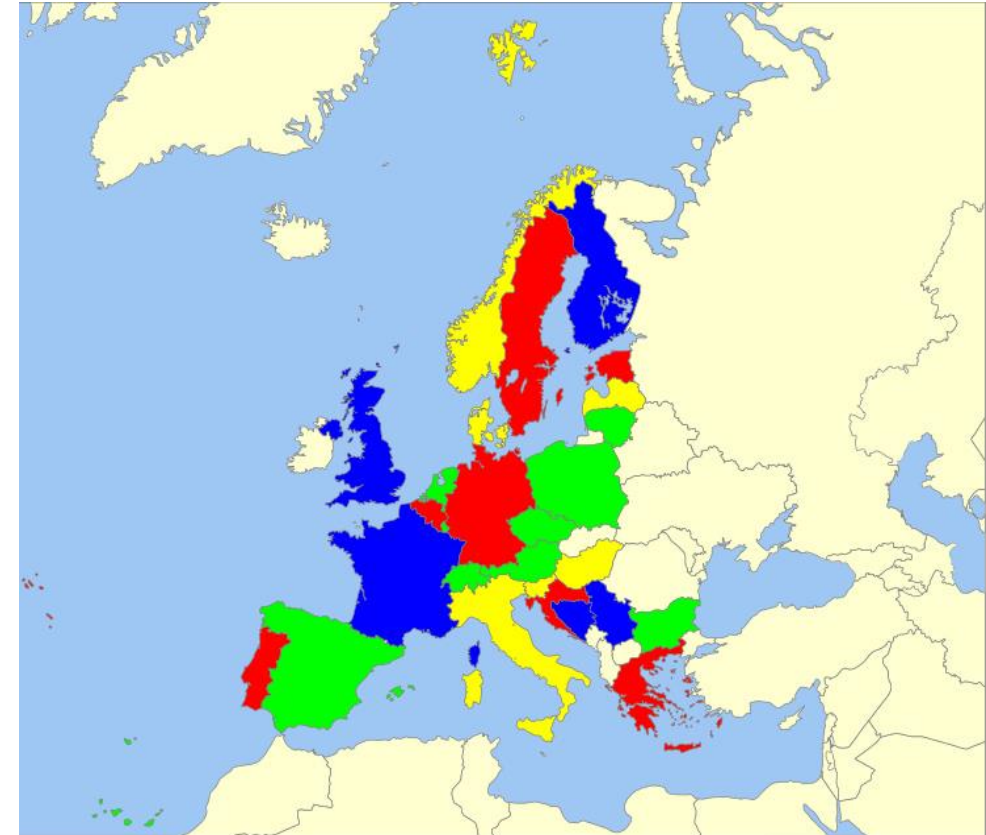
- Governance of countries according to governing body characteristics of the Data e-infrastructure providing organizations

Green = Research Inst., Univ., Users

Yellow = Ministry

Red = Mixed case

Blue = unclear replies



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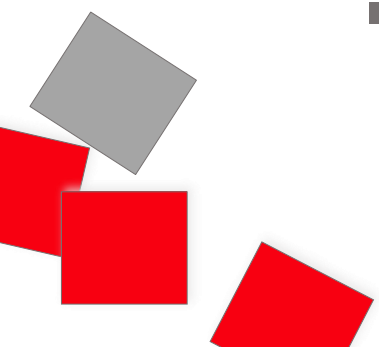
Preliminary outcomes

- Large **variety in governance and involvement of stakeholders** (ministries, research funders, universities, research communities)
- In most cases **horizontal data infrastructures** are not available or not coordinated. Data infrastructures often exist at the domain (discipline)-level
- **Network** type e-infrastructure is **quite different** compared to **HPC**, **Data** or **Services** type of e-infrastructures in governance
- **HPC**, **Data** or **Services** type of e-infrastructures have **similar** governance models in **most** countries

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Preliminary outcomes

- A **few** countries have **well-developed data access policies**
- **Access** to resources (especially computing and storage) is mostly **national**
- Some countries describe interesting mechanisms to **channel funding streams to horizontal e-infrastructures**, with involvement of research communities etc.
- **Best practices for other countries!**



Conclusion

On-going national/EU/international efforts for harmonizing e-infrastructures & RIs

- major role of **governance and coordination**
- **sustainability** and funding question
- **data** as the common currency between e-Infras & RIs
 - quality, trust, management and handling in connection to FAIR+R data
- EOSC, EuroHPC and the connected initiatives
 - **Easy access** for researchers **to all services** loosely integrating compliant services from all providers; to become a marketplace!
 - The **national building blocks** are key for their success!

Thank you for your attention!

For further information see e-irg.eu

Special thanks to all e-IRG delegates contributing to this presentation,
as well as the support project (e-IRGSP5) for performing the analysis

e-IRG is supported by e-IRGSP5

<http://e-irgsp5.e-irg.eu>

