# e-IRG Workshop during Czech EU Presidency - Session 1

#### Zoom link:

https://cesnet.zoom.us/j/91629168367?pwd=VTRMbk9XeVpXMjVZZ0tNUkh1T3FRdz09 Meeting ID: 91629168367 Passcode: 210104

**1st Session** 

Welcome address

**Moderator** 

**Statement** 

**Questions** 

### **1st Session**

(12. December, 13:30 - 15:30 CET)

## Topic: Coordination and collaboration among European e-Infrastructures - the e-IRG White Paper 2022

**Description of the Session:** The session will be used to present the pre-final version of the e-IRG White Paper 2022, which comprises the analysis of responses to a form of questionnaire on coordination and collaboration between European e-Infrastructures. The so-called "Guiding Questions" were sent to the e-Infrastructure initiatives and the analysis of their inputs will be presented. The session will be used to request further feedback from the e-IRG major audiences, namely, the policy makers and funders (including the EC, both DG RTD and DG Connect), the e-Infrastructures themselves (commenting also on each others' views), and the end users. This workshop will act as the final round of consultation before the publication of the e-IRG White Paper 2022 and the inputs received will be integrated into its final version that will be released after the e-IRG Workshop.

<b>13:30 - 15:30</b> (120 Min)	presentation	speaker
13:30 - 13:40	Topic: White Paper (10 Min) Opening and Welcome	e-IRG vice Chair - Jan Gruntorad (opening), Prof Radka Wildová (deputy minister of Education, Youths

Moderator: Sverker Holmgren (SE e-IRG delegate) (confirmed)

		and Sports of the Czech Republic) (welcome) e-IRG Chair Paolo Budroni (strategy outlook)
Hand over to Sverker Holmgro	en (present the session, speakers and	topic)
13:40 - 13:55	e-IRG White Paper 2022 (20 Min, incl Q&A)	Paolo Budroni (e-IRG Chair), Fotis Karayannis (e-IRG White Paper editor)
13:55 - 14:45	Short statements from the e- Infrastructures (50 Min)	Cathrin Stöver (GÉANT) (confirmed), Sergio Andreozzi (EGI) (confirmed), Antti Pursula (EUDAT) (confirmed), Natalia Manola (OpenAIRE) (confirmed), Philippe Segers (PRACE) (confirmed), Ignacio Blanquer (EOSC-A) (confirmed) (remote), Volker Beckmann (confirmed) (remote), (EOSC-SB), Jana Kolar (ESFRI) (confirmed)(remote)
14:45 - 15:00	Statements from the EC (15 Min)	Michel Schouppe (EC, DG RTD) (confirmed)(remote)
15:00 - 15:30	Panel discussion (including Menti/ Slido for feedback from the audience) (30 Min)	

## Welcome address

Prof Radka Wildová



Radka Wildova is Czech Deputy Minister for Higher Education, Science, and Research. She graduated from the Faculty of Education at Charles University. After teaching practice at several primary schools, she started in 1993 as an academic worker at the Faculty of Education, Charles University, where she was also the dean from 2009 to 2016. From 2016 to the end of January 2022, she held the position of Vice-Rector of Charles University for the conception and quality of education. She is the author or co-author of a number of professional publications and a member of several domestic and foreign expert teams. Since 2022 she has held the position of Deputy Minister for research and Higher Education.

## Moderator

Sverker Holmgren		
	Sverker Holmgren is the Director of Chalmers e-Infrastructure Commons. He is appointed as the Chalmers Delegate to the European Open Science Cloud Council and the Chalmers representative in the European university network CESAER's Working Group on Open Science. Sverker appointed as Swedish e-IRG delegate.	

Speakers

Paolo Budroni (e-IRG)



Since 2019 Paolo Budroni has been a senior researcher at TU Wien and Head of the EOSC and International Liaison Office ( TU Wien Library). His other positions include Chair of the e-Infrastructures Reflection Group, Coordinator of the Austrian EOSC Mandated Organisation, and member of permanent staff of the University of Vienna (since 1991). Budroni holds a PhD in Philosophy, Art History, and Romance Philology (University of Vienna, 1986).

#### Fotis Karayannis (e-IRGSP7)



Fotis Karayannis has worked for major e-Infrastructure projects such as the GEANT, EGEE series, EGI Design Study, PRACE, EGI, EOSC-hub and the e-IRG and ESFRI support projects. He has also acted as a national delegate of the Programme Committee of the FP7 Research Infrastructures and the e-IRG. Fotis is coordinating the current support activities to e-IRG and acting as the White Paper editor from e-IRGSP7.

#### Cathrin Stöver (GÉANT)



Cathrin has belonged to the GÉANT team since 1997, holding various positions as the organisation has grown and developed, always with a specific focus on growing the geographic reach of the GÉANT network and the deepening of the global R&E collaboration for the benefit of the global research and education community. Since 2020 Cathrin Stöver carries the overall responsibility for the GÉANT Marketing Communications and Design teams as well as GÉANT's EU Liaison Team. Cathrin is member of the SIAB of the Human Brain Project as well as the Scientific Council of the German NFDI.

#### Sergio Andreozzi (EGI)



Sergio Andreozzi is Head of Strategy, Innovation and Communications of the EGI Foundation. In his role, Sergio contributes to strategic planning and execution, governance, and business models for the EGI Federation. He has a long experience in developing international digital infrstructures for research and also served as a member of the EC Open Science Policy Platform.

Antti Pursula (EUDAT)



Antti Pursula has been working at CSC since 2001 as Expert, Development Manager, Director of Application services, and Project Director. His current position is Program Director for Research Infrastructures. Focus on research data management and analytics services for biomedical and environmental sectors. Specialties: Information technology services, software services, software development, computing, cloud services, Big Data, IT Infrastructure

#### Natalia Manola (OpenAIRE)



Natalia Manola is a research associate in "Athena" Research and Innovation Center and in the University of Athens, at the Department of Informatics & Telecommunications. She is the managing director of OpenAIRE (www.openaire.eu) since 2009, a pan European e-Infrastructure supporting open access in all scientific results, the coordinator of OpenMinTeD (www.openminted.eu) an infrastructure on text and data mining, and is now involved in the implementation of HELIX, the Greek e-Infrastructure for research. She has expertise in Open Science policies and implementation and she served in Open Science Policy Platform, an EC High Level Advisory Group to Commissioner Moedas to provide advice about the development and implementation of open science policy in Europe. Natalia has also served in the EC Future Emerging Technology (FET) Advisory Group (2013-2017).

#### **Philippe Segers**



Philippe Segers, MBA, is the Head of European High Performance Computing (HPC) projects for GENCI, the French HPC & Quantum Computing Research Infrastructure, where he manages the contribution of the French partners (CEA/CNRS/University and Inria) to the PRACE projects. He is member of PRACE Technical Board, Management Board, Board of Director and Strategy Working Group, and he was work-package leader of the PRACE Pre-Commercial Procurement (PCP) on "Whole System Design for Energy Efficient HPC" (procurement of R&D for Finish, French, German, Italian and UK partners), co work-package leader of the WP in charge of supporting the organization of the IR and its Stakeholder Management, and at the Management Board of the Public Procurement of Innovation PPI4HPC (procurement of innovative systems for German, French, Italian and Spain partner, GENCI being the lead procuring entity). He is also representing PRACE and GENCI at the European Open Science Cloud (EOSC) Association aisbl.

#### Ignacio Blanquer (EOSC-A)



Ignacio Blanquer is professor of the Computer System Department at UPV since 1999, has been a member of Research Group on Grid and High-Performance Computing of the Institute of Instrumentation for Molecular Imaging (I3M) since 1993 and becoming the leader of this group in 2015 and the vice-director of the I3M in 2019.

He is currently the coordinator of the Spanish Network of e-Science and serves as an expert to the Spanish Ministry of Science in the areas of e-Science. He is also the Spanish delegate of e-IRG.

#### Volker Beckmann (EOSC SB)



Since 2020 Volker is program manager for the European Open Science Cloud (EOSC) at the French ministry for higher education and research (MESR). In this position, he's representing France e.g. on the EOSC Steering Board, at the e-IRG and serves on the HORIZON-INFRA programme committee. Since 2022 he is the co-chair of the EOSC Steering Board. From 2016 to 2020 he was scientific director for Computing and Data Science of CNRS-IN2P3 in France. He was work-package leader in the EOSCpilot project and in EOSC-Pillar, and he served as EGI council member and was special advisor on EOSC matters at CNRS.

#### Jana Kolar (ESFRI)



Jana Kolar is the chair of ESFRI and the Executive Director of a research infrastructure CERIC-ERIC.She has a broad range of expertise, ranging from policy development and implementation to research and innovation. Among others, she was Director-General of Science in Technology at a ministry in Slovenia, a member of the Governing Board of the European Institute of Innovation and Technology and was chairing the Board of Slovenia's Technology Agency as well as the Board of Slovenia's research agency. She was a member of ERA Council Forum Austria - a high-level expert body advising the Austrian Minister responsible for Science and Research.

Michel Schouppe (EC, DG RTD)



Michel SCHOUPPE is Senior Expert and team leader on the European Open Science Cloud (EOSC) within the Open Science Unit of the European Commission's Directorate-General for Research and Innovation (DG R&I). He joined the European Commission in 1998. For more than 20 years, he has been responsible for the development of R&I policies and the management of EU research framework programmes in the fields of Earth observation, global observing and forecasting systems, ICT for crisis management, web sensors for the monitoring of the environment and environmental technologies for water supply and sanitation. He has represented the Commission in various international boards and committees (e.g. Belmont Forum, the Water JPI, GMES/Copernicus, GEO/GEOSS, IGOS-P, CEOS, ESA, NASA).

## Statement

about your presentation (1-2 sentences)

Catherin- GEANT: happy to be here. GEANT merger of Dante and TERENA (30 years). This collaboration has matured over the years. Geographically grown, also grown on the requirements. Traffic increasing 30%, thanks to EU funding, GEANT is future proof for the next 15 years. To offer 100 Gbps everywhere and also move to Terabit networking. When I joined in 97 we had 11. Today it is 38 plus Nordunet. Globally 2 international connections. Today 120 countries connected. Collaboration further with EGI, EUDAT, OpenAIRE. And on EOSC. 2 years in EOSC EB. Collaboration is key. Interdependence is happening today. Coordination is not enough. Interdependence! Scale up, share and cooperate. A few words on funding. Resources are available but the rules and eligibility criteria are very complex. Quantum and terabit have different criteria and all within the CEF program. If we are to coordinate we need to step up. More structured and Long standing. e-IRG neutrality is important. We need to come up with a commonvision and also how it is funded. Thank the e-IRG to enable this Forum.

Sergio - EGI: Welcome the work done in this White Paper 2022. Also at EGI Conference 2022. EGI federation has been contributing for many years, not only on resources, but also via expanding with peer infrastructures so that we better serve the community. The EGI Federation welcomes a more systematic cooperation among e-infrastructures to better serve research communities and support world-class research and innovation. In the almost 13 years of activity of the EGI F viederation, we have always strived to join forces and create synergies for the benefits of the European Research Area. For instance, in the early phase of EOSC, we co-authoried a joint position paper with the main e-infrastructures and research infrastructure clusters. Also, we have co-developed the EOSC-hub project with EUDAT and many research infrastructures, also establishing collaboration with OpenAIRE and PRACE. Often, collaboration were project-based or stimulated by open workshops like those offered by e-IRG. We believe that a more systematic approach in aligning would

increase our impact, therefore we welcome the idea to create a lightweight governance focusing on defined areas of cooperation of common interest. For instance, this could cover:

- Identification of opportunities to participate in common R&I programmes

- High-level coordination of service delivery for communities that require integrated access (this can training and technical support)

- Formulation of position papers for funders to inform policy making based on the practical experience of servicing research

- Contribution to EOSC (e.g. SRIA, MAR)

Important points to address are:

1. How to create a lightweight structure that can be agile and can bring benefits without too additional overhead?

2. How to structure a regular representation within e-IRG? ESFRI have an observer in the delegate meeting; should we foresee seats for e-infra as well?

3. How to recognise the European perspective of e-infastructures in the EOSC GA? At the moment, mandated organisations are per country with the exception of RIs who can nominate their own representative.

These are important practical points to be addressed and we look forward to continue the discussion also on the other aspects of the upcoming e-IRG white paper.

Antti Pursual - EUDAT: Head of secretariat of EUDAT infra. That's why I give the EUDAT views. Thank e-IRG for organising this session. And also for your efforts for advancing the coord effort. EUdAT offers data services, 24 members, EUDAT solutions to make their data FAIR, and building blocks for Web of FAIR data. For the coordination, we support the stepping up the interactions with other organisations. Very much needed to build the services and support R&I. EUDAT believes that the Forum should first be on sharing experiences and building views and in general facilitating the strategic discussions, including areas such as Data Spaces and i/f with EOSC. Regarding the organisation it should be consensus-based body which is open for all e-Infras. Not a closed club. Open and transparency. Advisory role for the governance of e-Infras. These strategic level discussions and how to interface with data spaces and EOSC. Starting with a lightweight. e.g. round of table discussion. And then we are open to deepening and more increased coop and coord.

Ignacio Blanquer - EOSC-A: EOSC-A represents the community in the EOSC partnership. 250 members and observers and a lot of experts in the TF. Collaboration takes place in these. We are not an e-Infra and we understand the role of e-Infras in EOSC as data have to be stored and process by e-Infras. Several points: not only representing users but also have a role in the provisioning of services. Also EOSC procurement, EOSC Core & Exchange, the Data Places etc. So this Forum could coordinate. Bring these requirements in the table and in the documents to be defined. many ways to implement the Forum and we will happy to help.

Natalia Manola - Managing director of OpenAIRE: OpenAIRE; Scholarly comms e-Infra: not only publications, but also any kind of research info from the very beginning until published. 15 services to discover and share data. What I would like to say: Federating e-INfra and connecting. What Catherine and Sergio, is about fed and connecting. Horizontal services and what is imperative: how to coordinate in terms we do but how this vision is changing and how coord our services for the users. But we need to be practical with users. We see already

connections, complementarity and also overlaps. So very valuable coord. How to bring forward: lightweight gov. It has to start lightweight. But we cannot wait for ages. We started it with services. Connecting our collabs and dissemination. Strategy needs to come first and then how we commit in more closed collabs without interdependencies at least at a loose leave knowing what other are doing.

Philippe Seggers- PRACE: common understanding and also common projects with other e-Infras such as GEANT, EUDAT, EGI, also CERN and SKA etc to provide HPC services, and access to huge computation. (sound not very good). From a user point of view: they don't want to know the label of service. Whether it is PRACE, EGI or whatever. They need seamless access, efficient AAI, and they need clarity. Our Industry advisory committee is telling us that the research ecosystem is too complex. They want to use HPC resources to test and computations, so that they move their efforts into operational resources. So, this is what we need to offer to them. The work of the White Paper is important. From a gov point of view: some rules to take into account: 1. the one who pays is one who decides. EuroHPC is the funding agency. 2. rules of gov: need to consider the most important stakeholder which is the user. We are not here to compete between each other RI. We are competing in geographical way with e.g. US or China. Also competing with GAFAM with some free resources until some point. If we move to that kind of services, that could be tempting for fast prototyping, we will lose important skills, that are mandatory for European Research and Industry Sovereignty. We need to combine the top down strategic approach with bottom-up approach, taking into account real user needs. We are sharing 2 things: we sharing the same values and we also sharing same or similar users. EOSC mandate is to provide access to digital resources, some that can be accessed directly on line, some more costly that will still need a Peer Review evaluation. We also need EuroHPC to provide their view on this cooperation.

#### ESFRI - Jana Kolar:

About European Strategy Forum on Research Infrastructures (ESFRI) brings together national representatives and European Commission supports a coherent & strategy-led approach to policy-making on RIs in Europe Its outputs include an ESFRI Roadmap for RIs of pan-European interest. €25 billion investment agenda in new facilities or major upgrades spanning all scientific domains, enabling curiosity-driven, responsible and socially relevant research *ESFRI and e-IRG:* HEurope definition: e-infrastructures are research infrastructures Development of EOSC all RIs have an e-infrastructure component (data) Repeated messages of policymakers that the cooperation should be increased (CC 2020,

21, ERA Action 8, ERAC)

Current relevant activities:

e-IRG chair is observer in ESFRI meetings

ESFRI involves e-needs where relevant – roadmap application, monitoring

e-infrastructures are included in the ESFRI landscape analysis (SWG DIGIT)

Opportunities for further cooperation:

Re. e-Infra Forum: Excellent to have: ESFRI will also need it. This morning we had the ESFRI Forum meeting and discussed our cooperation with various stakeholders. Today we discussed whether to involve them as umbrella organisation. So having an e-INfra umbrella

forum would be very welcome. Stakeholders are not only relevant for us but also for the ERA and include opinions. Further

Across the ESFRI Workplan (financing, energy challenges, cooperation, etc) The e-Infrastructure umbrella Forum (only Prace and EGI are currently represented in the RI umbrella organisations). On energy challenges.

Following the CC on ERA (21), ERA Action 8 and the recent ERAC discussion, mechanisms for further cooperation are expected to be elaborated in the coming months.

Volker Beckman - EOSC SB: A lot of challenges mentioned. Complex landscape. Not so much in favour of e-Infra Forum. This is the opinion of the Co-Chairs, not all countries. Have a lot of governance already. Users don't care about gov but things work. ESFRI, SHF, e-IRG as think tank. We would rather a joint group. Also part of CC conclusions. Foster this collaboration. Re. tech and operational forum there is a support action to provide a structure on the EOSC interop framework.

Michel Schouppe - European Commission DG R&I: Thanks to e-IRG for initiating this process. Tackling important issues. When I see the panel we have many important orgs around EUrope. I do not make any comments to . Clear political demand to consolidate RI ecosystem including e-INfra. This came out very clearly as raised by Jana and Fotis. In the CC of ERA, ERA Policy, .. the Council encourages MS to provide incentives to scenarios to integrate services at regional, national and European levels. Major issue we are facing in the e-Infra landscape. Happy to hear Cathrin on inderdependencies. We need a systematic approach at EU level. Societal challenges. Efficiancy and economies of scales. We have many users and many of them require the same things. There may be needed the same underlying services. The ERAC meeting in September: need to connect further, systematic approach across the various levels and cope with the fragmentation. The user dimension: the researcher at the center at the discussion. The users are not focusing on infra and tools but on their research. Integrate multiple services and data so that new workflows are developed. EOSC Federation with systems of systems. That's why we need common approach. We already have EOSC Governance and tools in the ecosystem, so i am happy to hear that a lightweight structure is proposed. Promote an interconnection with existing structures. Not only about e-Infras but about generic services being integrated with thematic services. Not isolating e-Infras on one side and thematic one the other and users on a third level. The EOSC-A was setup to hear the community. How the EOSC-A can accommodate this and possibly ESFRI Governance. These are the main messages.

#### PANEL DISCUSSION:

Paolo introduction: Key players around this topic. Relevance of NRENs, connecting the continents. Then coordination and interdependencies. Services are very relevant and coordination is needed. Is there a common vision and if not how do we go there. There are also some urgencies. Re. the bottom up process (users), who is it and how is represented. And do we need a separate Forum (as by Volker) or can be accommodate in existing structure. Also talent shortage. And the role of e-IRG.

Cathrin: A lot of interesting things have come up: NRENs can play a role in this. Many NRENs have gone into an internal process of coord within the countries. They are the connection to every institution. Jana: e-Infras are RIs and we need to stay. Volker: Why new forum: Science is funded in many programs. Funding opps come up with HE, CEF, DE, RRF

etc. Similar call at the same time, e.g. on data spaces. That shows a risk of fragmentation. Need to have a level of opening and coordination on these aspects. That level of strategy discussion needed within such a Forum. How do we deal with that. What influence can we have. So that the next Framework Programme is level fragmented.

Natalia: Support Cathrin points on fragmentation of funding programmes. Regarding coordination of visions: How do you deal with computing: e.g. on cloud, HPC, HTC, also commercial. E.g. what is the common vision on 5G. And then also what is the vision on scholarly comms and data sharing. What is the common vision? And how these visions are interconnected. Convergence of visions needed. One crucial component is the innovation. Our focus is in operations and also coordination. We are leave behind the innovation. This common vision has to have this innovation component. Cathrin: Yes, we need to pay attention on the strategic aspects, not only to put out the fire on operational things, to fullfill the requirements of the ERA and have a lead in the global race.

Antti: Open for emerging infra or new areas. It won't look good if it is a just a selection of initiatives. This was the main point of openness and transparency. Start from somewhere. Not to think about terms of reference. But start discussions! agree on the Importance of the strategic level.

Philippe Segers (Zoom comment): Nowadays we are more and more confronted with projects where we need to combine multiple fundings... 50% from there, 30% from there, 20% in kind, with partners that doesn't even have the same funding rate... And we try to attract post-doc to that labyrinth...

Volker: of course funding is more difficult but there is also more funding. Build on communication channels but bodies are already there.

Paolo: how to develop a common vision, how to attract talents, how to tackle the issues that were raised.

Philippe: Two things at stake: this is not only an issue for us to answer. I would like to see some projects move to operation. And not just always moving from project to project. ESFRI and ESFRI Roadmap should help on this. So we need more permanent (sustainable) way of working. Move from project manner to operational manner with long term funding and permanent activities and services. Without these our users will have difficulty to navigate in our ecosystem. This requires a strategic view and long term commitment, both from the European Commission and from our Member States.

Michel: Strategic visions are important for all areas. We need visions for these to meet the digitalisation of RIs which has been raised in the context of ERAC and ESFRI. And I am sure this will happen. I have more questions about operation and technical aspects and technical coordination of e-Infastructures and their operation. E.g. EOSC-Future is a mega project and brought many beneficiaries together with RIs and ERICs. Only a grant but we managed to combine thematic and horizontal. This finishes in 2023. How to sustain this? Is there a role of this e-Infra Forum? Composability of services is a big issue.

Philippe (Zoom comment): We ask all our user to provide Data Management Plan, before providing access to our Digital resources, and we need to ask for Machine Readable DMP, mandatory for an efficient FAIR access to results of science. In an other hand, that mean that we need to provide them with sustainable resources on which they can rely on long term. and for that we need to hear the needs of our community. And to implement the ressources...

Jana: Enjoyed very much learning from this panel. Support the opinion of Michel. very important to have vertical and horizontal infras together. And to develop and optimise the services for this environment. The position of the Forum and the connection with EOSC: I cannot comment on this. I can reconfirm my previous statement: to have the voice from the community well represented. If this can come via ESFRI or e-IRG this fine. If separate need ok. But need to be complemented by ESFRI.

Natalia: We need a Forum to understand what we will do. With existing bodies our messages are dilutted. EOSC Future is a good example but difficult to manage. With a new consortium you need at least 6 months to know each other. So mega solution.

Sergio: A dedicated Forum is needed, agree with Natalia. On the coordination of visions: more design the end to end user experience. How they work today and how it should be in 10 years time.

Stefan - e-IRG new Chair: It is all about cooperation. How can we move from discussions to real work? Come up with useful points for all groups. Degree of equilibrium among the groups is high but can be higher. We can start with concrete issues, e.g. energy crisis and also provide an overview for funders presenting the overall e-Infra framework.

Antti Pursula (Uoom comment): Good points Philippe. Providing sustained resources for implementing DMPs is important. I see that longer term data management solutions and HPC systems need to be better integrated to promote this. Not to forget the funding for operations.

#### SUMMARY OF SESSION

There is agreement that moving from the current ad-hoc coordination and collaboration, to a regular, well-framed and high-level coordination at strategy level would be beneficial. This would ensure a steady dialogue, constant flow of information and common understanding across all actors. The exact form of the coordination still needs to be decided, but e-Infrastructures agree that it should be lightweight & progressive.

Key points raised by the e-Infrastructures representatives regarding the need for coordination were among others on the following:

1. Laying out each of their (e-Infrastructure) visions, as well as interconnecting and coordinating their visions, as well as evolving their visions over time given the ongoing developments.

2. Going beyond coordination towards working together and paving the way towards having "interdependencies".

3. Organising joint R&D projects for the introduction of their next generation services 4. Sharing experiences and building views and in general facilitating the strategic discussions via means such as joint position papers for funders to inform policy making based on the practical experience of servicing research or joint contributions to major European initiative such as EOSC (e.g. EOSC SRIA and MAR), Data Spaces, EuroHPC, etc.

5. Synergies, connections and joint communication and dissemination efforts towards the communities.

6. The coordination should ultimately benefit their end users, with high-level coordination of service delivery for communities that require integrated and seamless access (this can also include training and technical support), simplifying the complex research ecosystem. This means that a combination of the top-down strategy setting approach with the bottom-up user needs is needed. Regarding the user representation in the coordination structure, this needs further discussion. Although there was considerable progress in the areas of coordination, the exact areas need to be further discussed and agreed.

Regarding the form of the cooperation, e-Infrastructure prefer a consensus-based, lightweight and agile structure, without much overhead, which is open to e-Infrastructures and transparent to the community, having an advisory role to the e-Infrastructures governance. The coordination structure should start working very soon, without many formalities. If the coordination is appreciated, then it can be go deeper.

The EuroHPC view as a major stakeholder in the ecosystem would be greatly appreciated.

#### Follow-up meeting

Natlaia: Would like to see e-Infrastructures (5-6) to have a discussion forum. SOunding wall with peers. The first point of interaction. Having identify a few strategic points, see after 10 months how to continue. If we take it to the EOSC-A or 20 ministers, not sure what we will get out. Informal forum to understand each other. What our strategic goals/targets and how to approach the issues? Probably not researchers.

Cathrin: Not starting from scratch. Those are mostly bilateral. The main environment is via the project environment. Its operations, short steps. i think that works, because we can bring different people together. No sense to discuss about AAI in this forum. Blossomed. PRACE is no longer there. EUDAT, OpenAIRE, OpenAIRE being part of EOSC. GEANT retains budget line. EOSC has a budget line split between EOSC-A and also procurement. Interesting development. And also EUroHPC with billions. Without a Forum without ESFRI for 2035, e-Infras may be considered as done. Very generous funding from EC. But connectivity from EuroHPC and also Quantum is very high. So, fragmented environment.

Brussels there are a lot of parallel activities with governments at the table. We are nota membership organisation. Who is our interfaces. We need to do something about that.

Paolo: e-INfras work very well. And what works well does not get attention. One cafe on NRENs. NRENs works well. So no attention. Leiden: FDO Forum. Not talking about infras, only data. Data without Infras is not useful. We need a codify a way.

Sverker: A bit of history. ESFRI 20 years, e-IRG 19. Was formed as a reaction to ESFRI by DG Connect. The development during my presidency: proposal to merge ESFRI and e-IRG. It was a mistake. e-IRG has difficulties. Connect wanted to run the business themselves. What root do you go?

Natalia: What is the difference between EOSC SB and e-IRG.

Stefan: SB is the MS representation in the tripartite governance. Same for GEANT. Cathrin: Europe should be as GEANT: a voluntary effort. Bottom-up, without governmental reps. Too bottom-up!

Stefan: EuroHPC is soaking up all efforts around HPC. Initially not happy, also our users. But they have billions. EOSC started in a similar way. e-IRG is the only independent group without EC control. Melting pot from all the groups.

Paolo: From my point of view/personal: to start discussions by offering the ultimate solution is not the right way. The ultimate solution is the Forum. The right way is to start by raising questions to people who are able to take decisions, like Michel or Volker. E.g. how can we develop a common vision.

Natalia: e-IRG are representatives from Ministries. In many countries didn't reach back the ministry and the e-Infras. EOSC is a hype. There should be a body of contry reps and a forum of us. How do you get back the discussion to the e-Infras. ESFRI setup a roadmap with projects. There is a process. This is a pity. e-IRG needs to deal with this. ESFRI is not able to deal with e-Infras. Natalia: All of ESFRIs have a data element. Sverker: but not horizontal.

Jan W: recommended to minstiries to involve data persons.

Cathrin: How do you deal with programmes where some countries are not eligible. I can see the political drivers (sovereignty, security) but breaks the old model, e.g. including AC countries. What's your conversation within e-IRG. Paolo: 2009 OpenAIRE started. It was not compulsory to share results. Only few points were obligatory. Covid showed us that e-Infras are critical in crisis situations. e-IRG cafes also very useful. Invited CH, TR, NO. To have a perspective from AC or other (e.g. Ukraine).

Cathrin: Shift from HE to CEF and Digital Europe. And it is not only CH and UK. Natalia: If we use e-IRG, which will be our role. Paolo: what role do you expect? Sverker: ESFRI sets the strategy based on some inputs from the countries and then projects are selected.

Cahtrin: e-IRG: Neutrality/independence. Access to national govs that I don't have. We (geant) go to each country. What i would need is an organisation that is interested in e-Infras, believes on e-Infras and its necessity in the future, to have a forum to make the space and guarantee the funding without coming from thematic sources. Now EuroHPC and quantum can end up with their own e-Infrastructures. Before they take this decision, we need to talk to them. Paolo: We invited the e0INfras to talk. We didn't invite the whole community. Sverker: my proposal is that you (e-Infras) create a cluster initiative. Natalia: this is the Forum.

Tiziana; Major challenges on funding. Top-down decisions. e-IRG can play a role. A coordination structure, Forum or whatever. But e-IRG can play a role. The e-Infras have been invited to present but not discuss the policies. Also sustainability, funding, etc. Policy domains.

Fotis: e-INfras were observers in past. Strong voices. Observers seats lost. Now can be discussed. e-IRG overlooking all areas, networking, computing, data.

Tiziana: New scenario: how e-Infras respond to crisis. Ukraine and Russia, etc. e-iRG could become a reference point on such discussions. Also China.

Sverker: The e-Infra Forum is important. Not observers as e-IRG.

Cathrin: e-IRG: honest broker role.

Natalia: Form this cluster. And give input to e-IRG and others, e.g. EOSC-A.

Cathrin: Have the discussion inside e-IRG. We (e-Infras) see what you come up with and what you recommend. See where it goes on the inputs from all projects. Answer is the White Paper.

Paolo: But we need a counterpart.

Cathrin: Rolling black-outs to exclude science. France declared so.

Jana: ESRI: Questionnaire to RIs on energy crisis. We can send it to e-Infras. Objective to come up with a doc to describe the range of challenges from national to Eu levels. How to come forward. Cathrin: We had this discussion in GEANT. Jana: Two synchrotron are planning to close (in France and Italy).

Ignacio: The two levels of e-IRG discussion and then national feedback: e.g. if there is a consensus in e-IRG, then the impact will be much higher.

Paolo: One day in Science Europe: proposal for a post grant agreement after a project is finished.

## Questions

for the panel discussion (what would you like to be asked?)

by Paolo:

- how to develop a common vision?
- How to develop and coordinate "visions", because they develop very fast and the tasks are very difficult
- There are some urgencies, like the flow of informations, qualified information
- How can the monitoring of the coordination be organized?
- if we talk about "bottom up processes": what is the bottom, who are the players

- the issue of transparency
- are we ready to address the talent shortage we are experiencing ? (legal issues, m management , technical skills..?
- the role of e-IRG ? is there a possible role?

The role of NRENs (coordination/integration)  $\rightarrow$  only research infrastructures ? The role of the fragmentation The coordination of visions/  $\rightarrow$  convergence of visions it is all about cooperation

the collateral issues relate to fundings

energy crisis/ inflation:  $\rightarrow$  funding is asked to choose how to fund

the relevance of the e-infrastructure commons