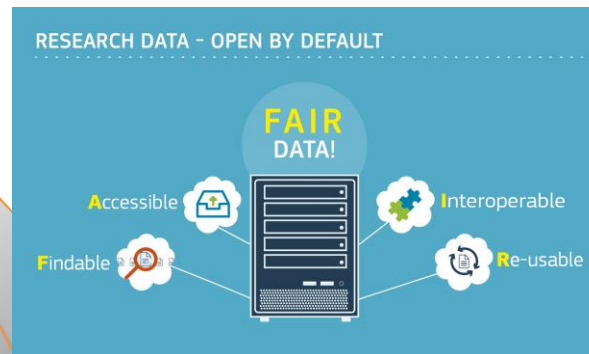
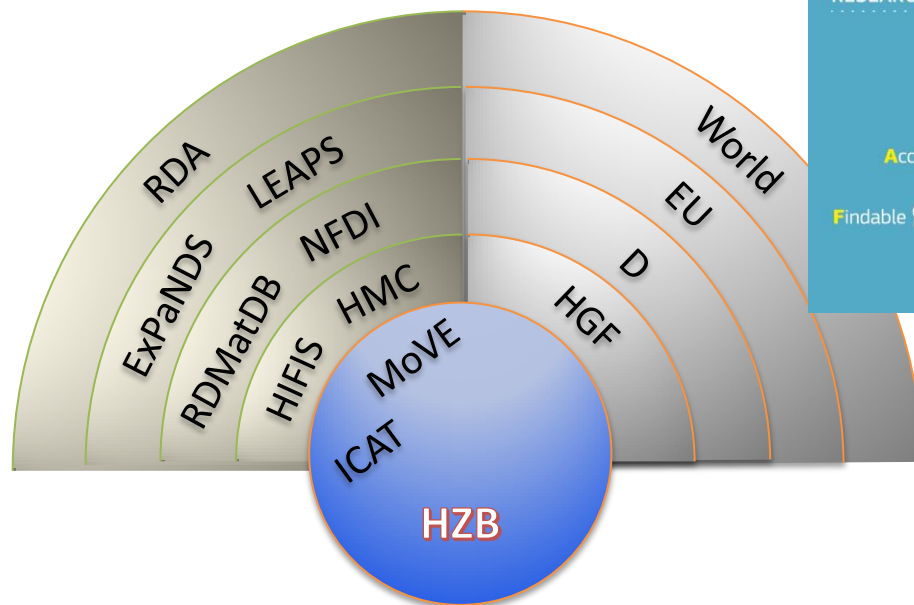
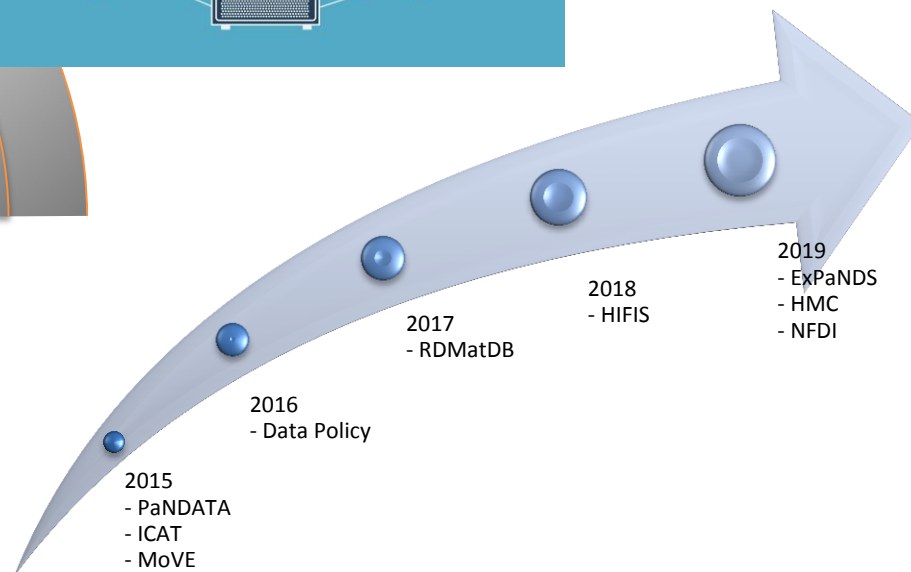


Overview FDM - HZB-relevant Projects

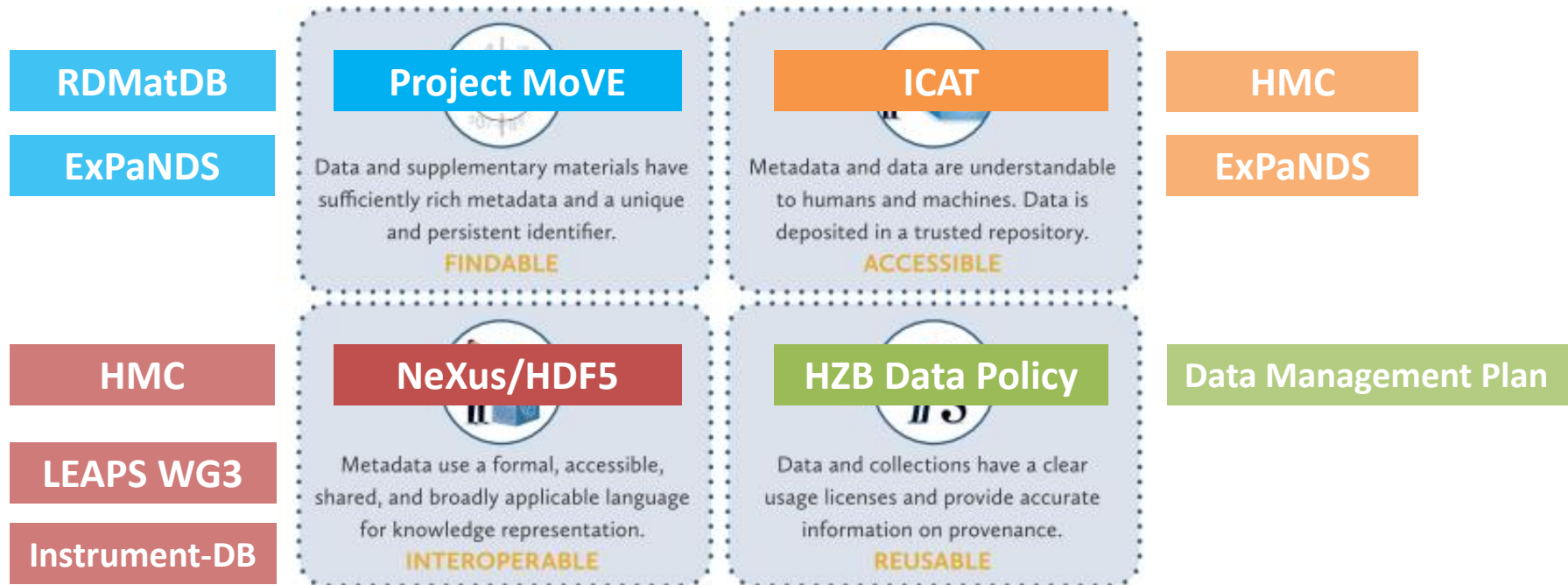


Ron Dekker,
Seconded National Expert
European Commission

- HIFIS - Helmholtz Infrastructure for Federated ICT Services
- HMC - Helmholtz Metadata Collaboration Platform
- NFDI - Nationale Forschungsdaten Infrastruktur
- RDMatDB - Research Data Management at Dresden/Berlin
- LEAPS - League of European Accelerator-based Photon Sources
- ExpANDS - EOSC Photon and Neutron Data Services



What is FAIR DATA?



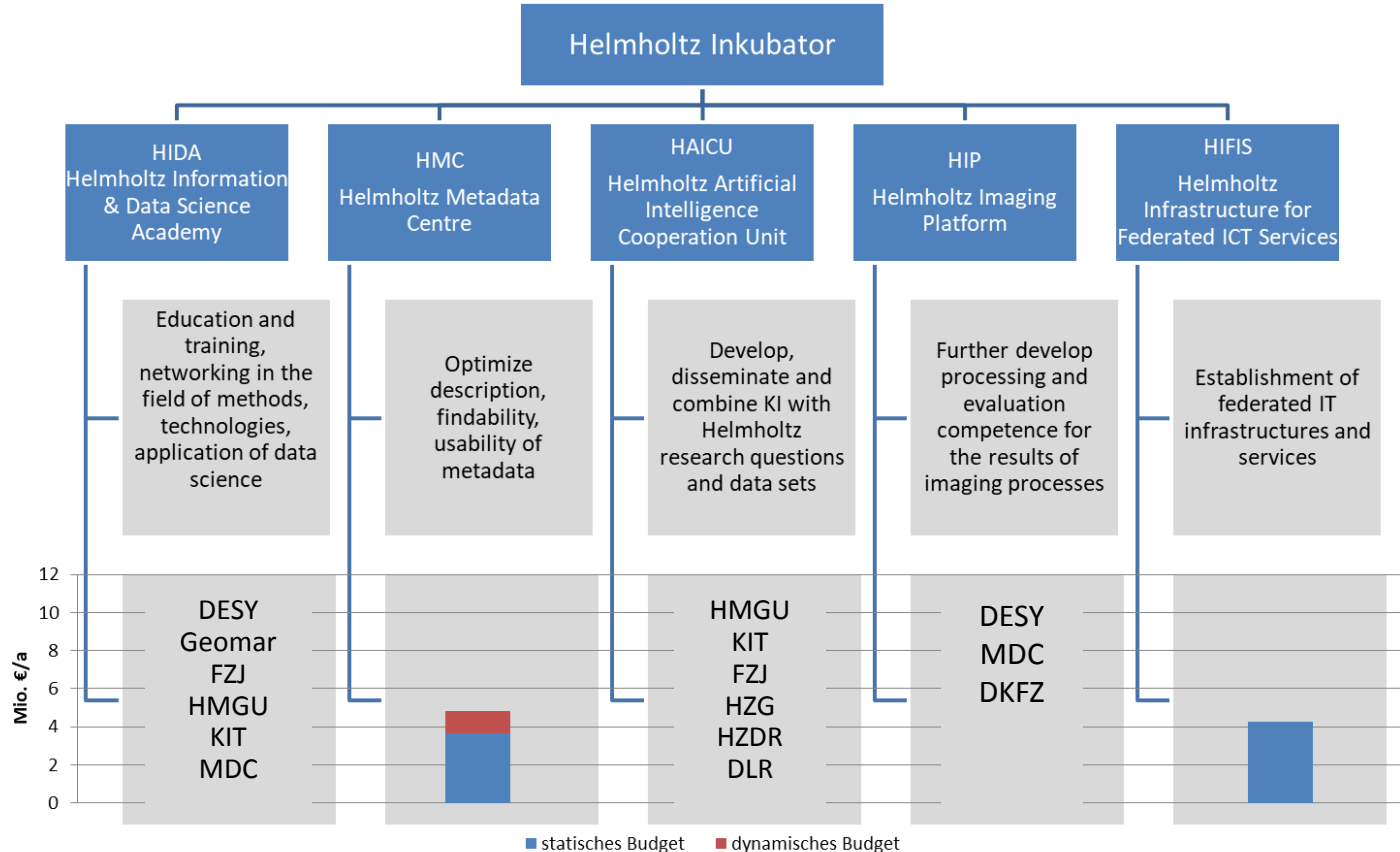
RDMatDB: Research Data Management at Dresden/Berlin, funded by BMBF

HMC: Helmholtz Metadata Collaboration Platform, funded by HGF

ExPaNDS: EOSC Photon and Neutron Data Services, funded by EC

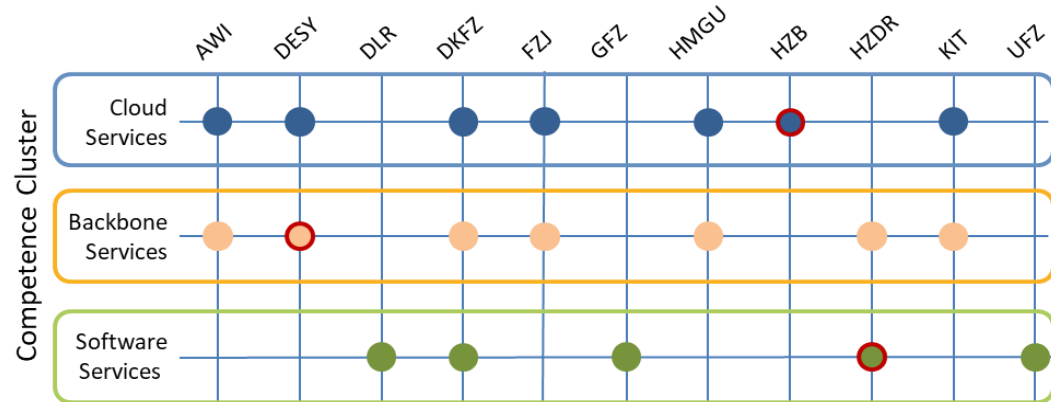
LEAPS: League of European Accelerator-based Photon Sources

<https://libereurope.eu/blog/2018/07/13/fairdataconsultation/>



■ Helmholtz Infrastructure for Federated ICT Services

- Central coordination : DESY, HZDR, HZB
- other parties:

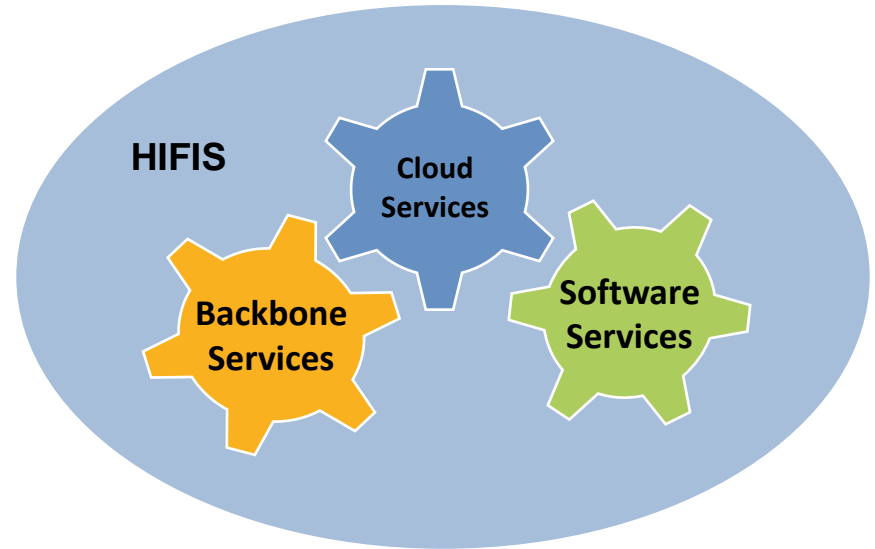


- Contact person at HZB : Ants Finke / Ingo Heinzel
- Volumen HZB: 5 FTE, 593 T€ p.a. (ohne matching fund)
- Decision at the HGF General Assembly 09/2018:

○ Competence Centre

genehmigt

- **Cloud Services**
federated platform for proven first class cloud services
- **Backbone Services**
high-performance trusted network infrastructure with unified basic services (e.g. authentication)
- **Software Services**
platform, training and support for high-quality, sustainable software development



■ Helmholtz Metadata Collaboration Platform

- Central coordination: DKFZ, KIT, GFZ
- other parties: none
- Contact person at HZB: Ants Finke
- Decision at the HGF General Assembly 09/2018:

- critical remarks from AWI/UFZ/FZJ, HZI/HMGU, KIT

- Returned to the workgroup for revision

- A decision on a changed proposal is to be made at HGF General Assembly 04/2019.

- New: one [Helmholtz Metadata Hub](#) per research area



genehmigt

1. Erschließung der Forschungsdaten durch Metadaten

- Informationsbasis über Metadatenontologien und -standards, Werkzeuge und Vorgehensweisen zur automatisierten Erfassung von Metadaten, FAIR Prinzipien praktisch umsetzen

2. Forschungsdaten durch Metadaten FAIRwertbar machen

- Community-spezifisches Methodenwissen aufbauen, in Form von Beratung, Schulung, etc. bereitstellen und Expertise für Community-übergreifende Fragestellungen nutzbar machen

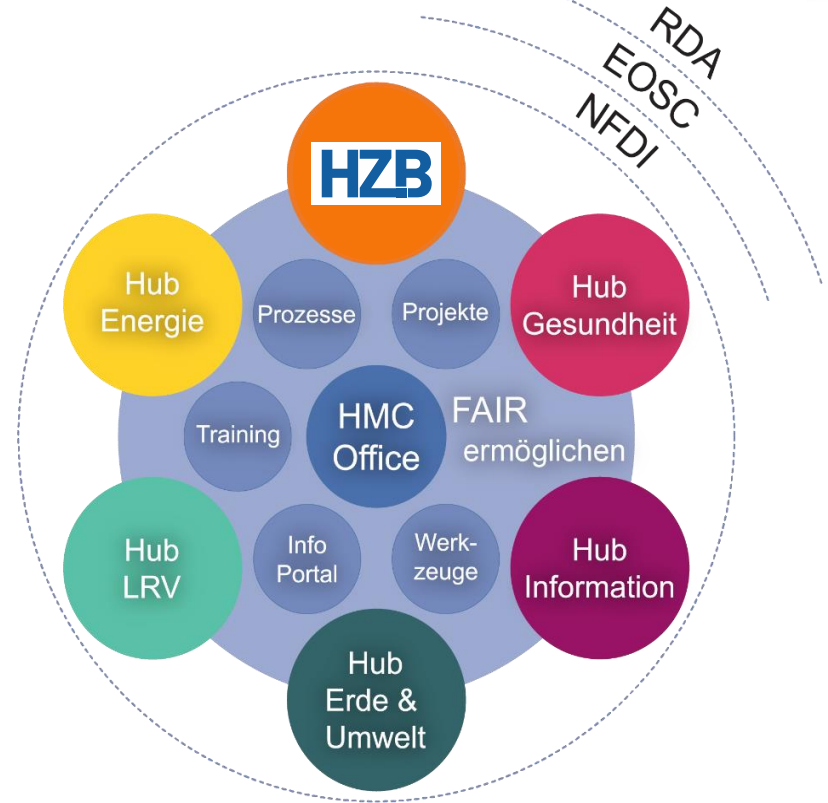
3. Anerkennung durch qualitativ hochwertige Metadaten für Forschungsdaten

- Prozesse, Werkzeuge, Dienste und Schnittstellen im Bereich der Metadatenorganisation, der Provenienz und der Ontologien bereitstellen; Kompetenzen Community-übergreifend aufbauen

4. Optimale Vernetzung und nationale/internationale Anschlussfähigkeit

- Basisinformationen und Schulungsinhalte über HIDA verfügbar machen; Aufbau einer „Metadaten-Community“; Vertretung in internationalen Gremien (z. B. der Research Data Alliance) und Projekten (z. B. EOSC)

1. Aufbau von domänenspezifischen Metadaten Hubs entlang der Expertise und der Bedarfe der Forschenden.
2. Standards, Best Practices, Prozesse und Werkzeuge in den Hubs auf Bedürfnisse der Forschenden zuschneiden.
3. Unterstützung der Forschenden bei der professionellen Organisation Ihrer Forschungsdaten und Nutzung bestehender Strukturen.
4. Vernetzung und Bündelung der Aktivitäten über HMC Office erlaubt Austausch und Entwicklung gemeinsamer technischer und organisatorischer Ansätze.



STRUKTUR DER HELMHOLTZ METADATA COLLABORATION PLATFORM

- Council for Scientific Information Infrastructures (RfII)
 - Members appointed by the Joint Science Conference (GWK),
 - Helmholtz represented by Mr. Marquardt (FZJ)
 - Output:
 - Leistung aus Vielfalt. Empfehlungen zu Strukturen, Prozessen und Finanzierung des Forschungsdatenmanagements in Deutschland, Göttingen 2016, 160 S.
 - Schritt für Schritt – oder: Was bringt wer mit? Ein Diskussionsimpuls zu Zielstellung und Voraussetzungen für den Einstieg in die Nationale Forschungsdateninfrastruktur (NFDI), Göttingen 2017, 4 S.
 - Entwicklung von Forschungsdateninfrastrukturen im internationalen Vergleich. Bericht und Anregungen, Göttingen 2017, 93 S.
 - In der Breite und forschungsnah: Handlungsfähige Konsortien. Dritter Diskussionsimpuls zur Ausgestaltung einer Nationalen Forschungsdateninfrastruktur (NFDI) für die Wissenschaft in Deutschland, Göttingen 2018, 6 S.

Aim of the NFDI

... to systematically manage scientific and research data, provide long-term data storage, backup and accessibility, and network the data both nationally and internationally.

... by means of a coordinated network of consortia tasked with providing science-driven data services to research communities.

► Address the needs of researchers

- in line with the subject-specific and/or methodical needs of the research community
- by enabling subject-specific tools and support structures

► Facilitate easy access to data

- by identifying and addressing academic research needs
- by indexing, securing and FAIR handling of research data for re-use

► Foster sustainability

- by providing long-term data storage, backup and accessibility
- by enabling reliable and sustainable RDM services tailored to the needs of

► Establishment phase

- Main issue: governing bodies, i.e. Consortia Assembly, Scientific Senate and Directorate, have not yet been established
- Exceptional challenge: How to coordinate cross-cutting topics among consortia?

► Conference objectives

- Discuss what individual consortia can contribute to the NFDI
- Draft an overview of relevant cross-cutting topics and areas of joint action (but implementation and organisation remain the responsibility of the Directorate)
- Build a common understanding of cross-cutting topics that consortia can and should address themselves, but also identify topics that need to be addressed otherwise

► NFDI Directorate:

- will be established at KIT and FIZ
http://www.kit.edu/kit/pi_2019_064_direktorat-der-nationalen-forschungsdateninfrastruktur-wird-in-karlsruhe-angesiedelt.php

- ▶ First call for proposals in June 2019 - published 06.06.2019
- ▶ Submission of **non**-binding letters of intent for all three calls(!) by the end of June 2019
 - The Expert Committee will consider using the Lol as another way to encourage cooperation between consortia
 - This will be done by publishing the Lol openly and to include information on who will be involved and how other interested parties and initiatives could get involved
- ▶ Proposals to be submitted for the first call in October 2019
- ▶ Review and assessment of proposals from November 2019 to April 2020
- ▶ Funding decision by GWK in June 2020
- ▶ Details will be updated regularly at <http://www.dfg.de/nfdi/en>

https://www.dfg.de/foerderung/info_wissenschaft/2019/info_wissenschaft_19_37/

- **DAPHNE:** Data in X-ray Photon Science NFDI entity, initiated by DESY and KFS
- **FAIRmat:** FAIRe Dateninfrastruktur für die Materialwissenschaften und verwandte Forschungsgebiete (<https://fairdi.eu/fairmat>)
- **KonsortSWD:** NFDI-Konsortium für die Sozial-, Verhaltens- und Wirtschaftswissenschaften
- **TEXT+:** Geisteswissenschaften, Text- und Sprachforschung
- **NFDI4Ing:** Nationale Forschungsdateninfrastruktur für die Ingenieurwissenschaften
- **ForumX:** Offenes, an der experimentellen Methode orientiertes Forum
- **NFDI4Health:** Forschungsdateninfrastrukturen für personenbezogene Gesundheitsdaten
- **NFDI4Life:** Forschungsdateninfrastruktur für die Lebenswissenschaften
- **NFDI-Neuro** Nationale Forschungsdaten-Infrastruktur für die Neurowissenschaften
- **NFDI4Chem** Konsortium Chemie für die Nationale Forschungsdateninfrastruktur
- **NFDI4BioDiversity:** Biodiversity, Ecology & Environmental Data
- **NFDI4Microbiome:** IT solutions and infrastructure for the microbiome research community
- **Astro – NFDI:**
- **NFDI4Earth:** NFDI Konsortium „Erdsystemforschung“
- and many more
- a total of 57 consortia have registered for the conference with an extended abstract



Current fragmented setting

INFRAEOSC-05 aims to support a decisive shift in service provisioning

New federated European ecosystem for research data

INFRAEOSC-05b Call

Coordination of EOSC-relevant national initiatives across Europe and support to prospective EOSC service providers

- support the coordination, convergence and federation of EOSC relevant national and/or thematic initiatives for open research data and services through the development of appropriate common tools and mechanisms
- support the gradual alignment of policies and practices of EOSC-relevant national and/or thematic initiatives to EOSC standards
- enable EOSC-relevant, non-commercial services to be accessed through the EOSC portal

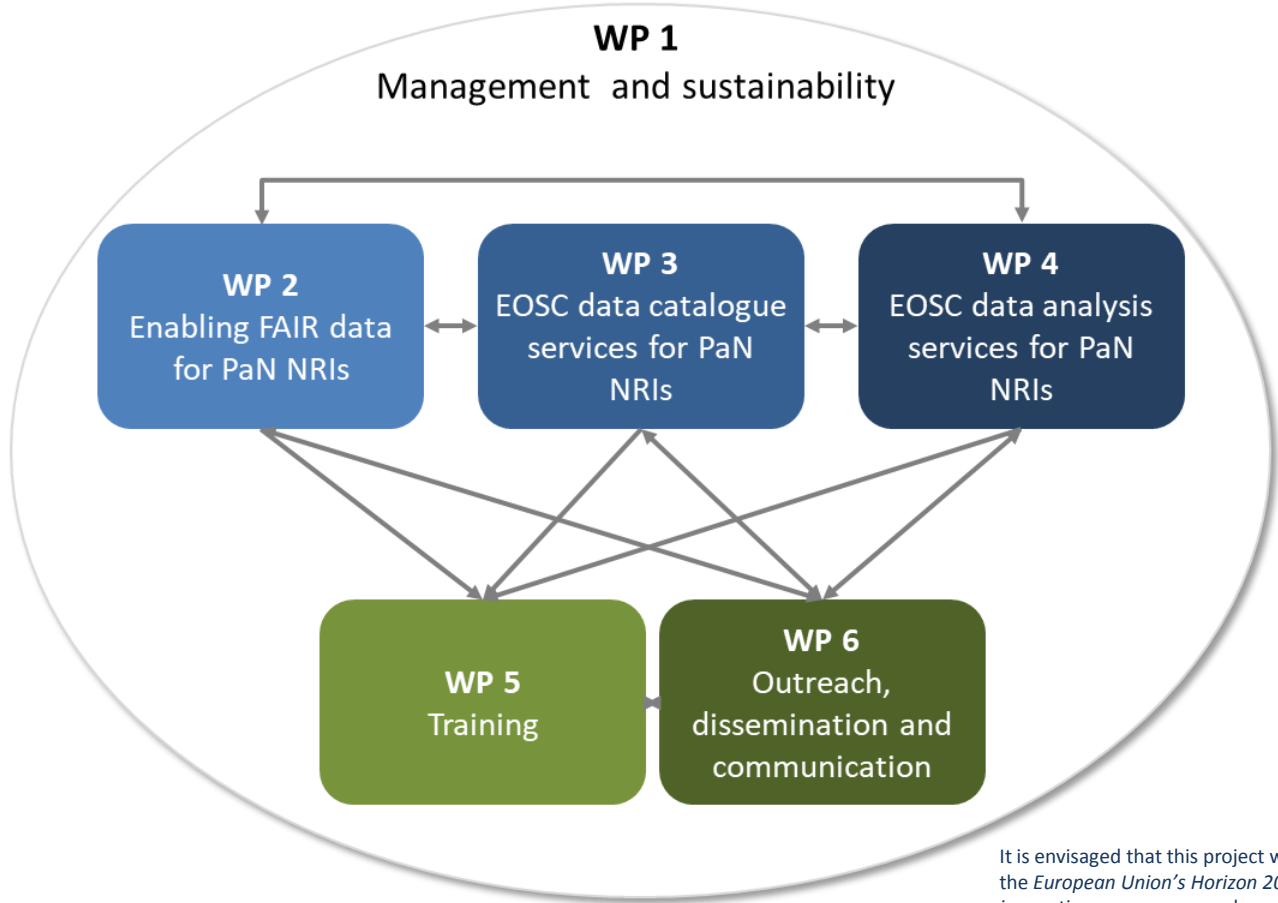




Federation of 10 European National Photon and Neutron RI & EGI

- one 4th generation storage ring (MaXIV),
- seven 3rd generation storage rings (ALBA, DLS, SLS, Elettra, SOLEIL, PETRA III, BESSY II),
- five free electron lasers (SwissFEL, FLASH, FLASH II, Fermi, FELBE),
- two Neutron sources (ISIS and SINQ)
- a federated e-infrastructure (EGI)

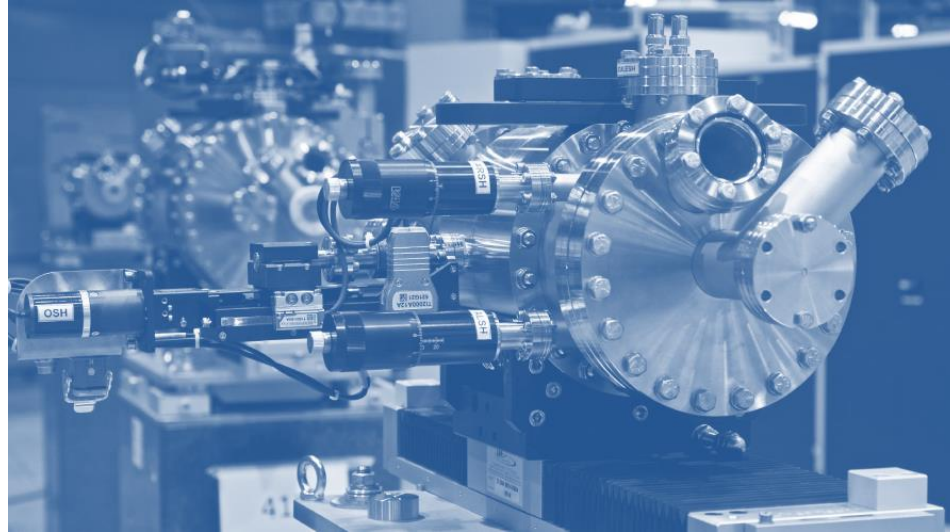




It is envisaged that this project will receive funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857641



Vielen
Dank
für
Ihre
Aufmerksamkeit



HZB Helmholtz
Zentrum Berlin

Ants Finke

Hauptabteilung Informationstechnik (IT)
IT-Leiter

Helmholtz-Zentrum Berlin für Materialien und Energie GmbH
Hahn-Meitner-Platz 1 | 14109 Berlin
Tel +49 30 8062-43767 | Fax +49 30 8062-42457
Mobil +49 174 3180599 | ants.finke@helmholtz-berlin.de
www.helmholtz-berlin.de