

2nd Engagement Workshop InRoad's Case Studies

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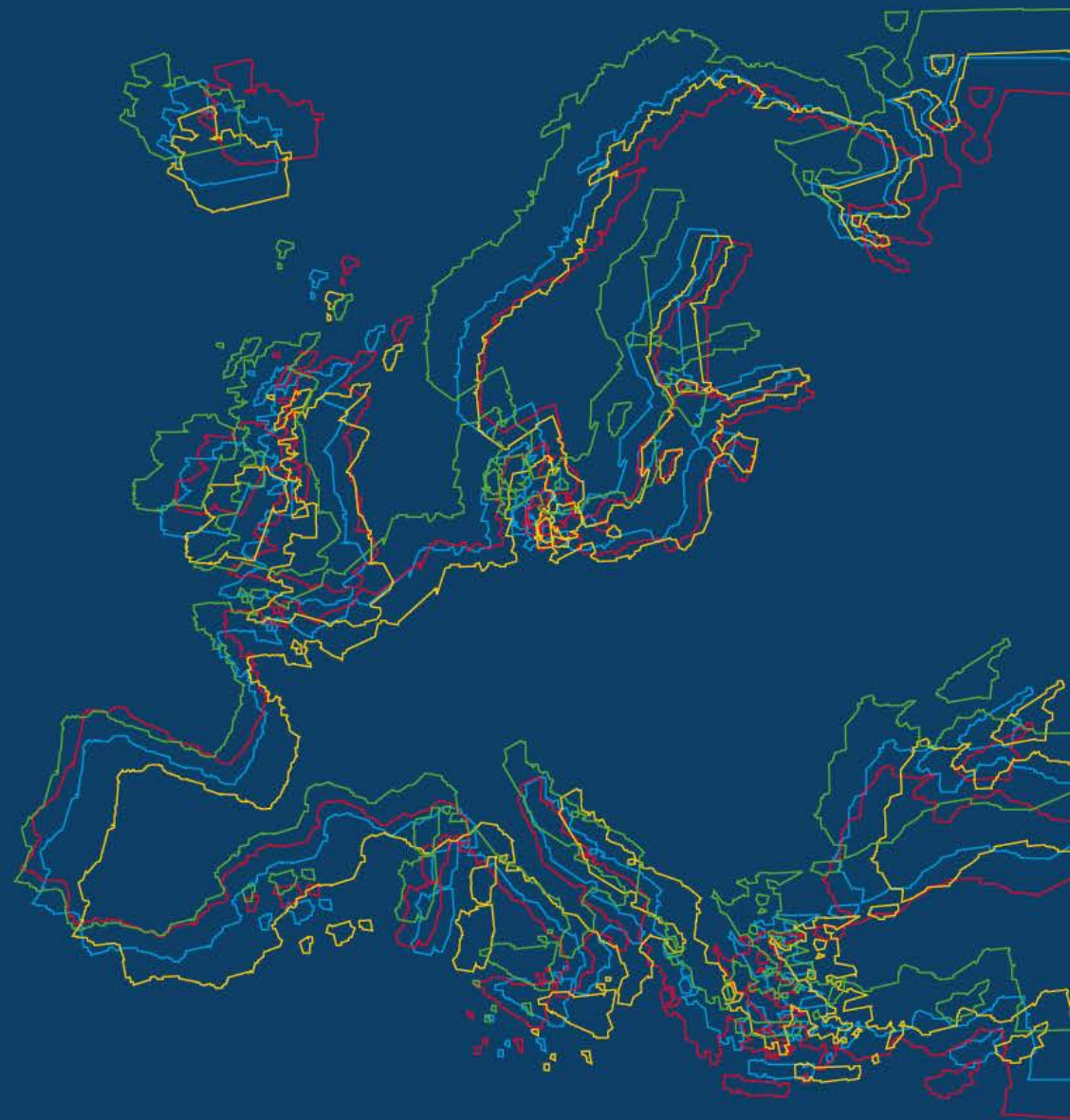
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synchronising research infrastructure
roadmapping in Europe



Content

- **Why the need for case studies:** Context of InRoad's second data collection round
- **How are we going to proceed:** Case study methodology
- **What are we going to do:** Specifics of case study designs for:
 - RI Roadmapping
 - RI Funding
 - RI Business Planning
- **Feedback discussion**

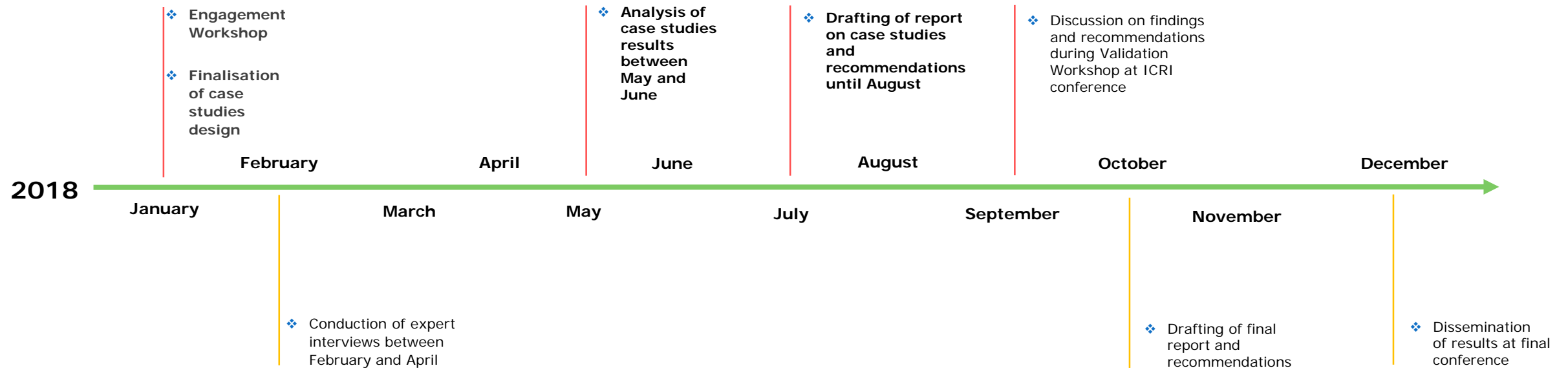
Context of InRoad's 2nd data collection round

- Need to engage with a target group that was not reached during the consultation: research infrastructures themselves
- Need for more in depth and qualitative data: consultation has led mainly to quantitative knowledge of national RI roadmapping, RI funding and RI business planning
- Need to investigate specific points with direct contact with experts
- All three subjects tackled by InRoad will engage in case studies

Case studies methodology

- Collective reflexion on the case studies design based on a common methodology
- Agreement on the main aspects of the case studies protocol
 - Elaboration of interview guides
 - Conduction of interviews by 2 consortium members
 - Quality issues
- Alignment of timelines for case studies of the 3 issues addressed by InRoad (one single report)

Case studies timeline



InRoad Case study design

RI ROADMAPPING

RI Roadmapping / Research problem

The **large diversity of processes, purposes and timelines** of the national RI roadmaps in Europe challenge the funding of a **sustainable Research Infrastructure landscape** in Europe.

Case study aim: identify **good practices of decision-making processes** and **criteria** used on a **national or regional level** in view of a sustainable Research Infrastructures landscape in Europe.

RI Roadmapping / Diverse purposes of national RI roadmaps

	EU Member States																											Associated States							
	A	B	BE	C	D	EE	FI	F	DK	E	GR	D	IE	IT	LT	N	L	PL	P	R	O	SI	E	S	F	J	K	IS	IL	M	E	N	C	H	
National RI roadmap in place																												*							
Purpose of national RI roadmap-ping/ decision-making process for RI																																			
- Identification of scientific needs and existing gaps responding to the changing R&D and socio-economic demands																																			
- (Bottom-up) list of the scientific user community on desired RI																																			
- Inventory of existing RI																																			
- Tool supporting and monitoring RI implementation																																			
- Guide with strategic RI priorities for setting research policy priorities																																			
- An input for funding decisions on RI between institutional, regional and national stakeholders																																			
- A list to achieve agreement on the RI with institutional, regional and national stakeholders																																			
- A list of strategic priorities, which are foreseen for funding																																			
- A tool to differentiate between institutional and regional RI versus RI of (more than) national relevance																																			
- A planning instrument to prepare for the negotiations at European (ESFRI) and international levels																																			

RI Roadmapping / Case study design

- **Main research question:** How does the RI roadmap process look like in a country and what role does it have in the context of priority setting and allocation of public funding for RI in that country?
- **Topics to investigate:**
 - Design and planning of national RI roadmap process
 - Importance of different actors on different phases of the national RI roadmapping
 - Support of decision-makers in view of their decisions
 - Impact of the research and innovation system on national RI roadmapping

RI Roadmapping / Case study design

Specific questions to address

- How do national user communities organise and strategically prioritize their wishes? How do they bring their proposals towards decision-makers?
- How do decision-makers inquire the needs of the national user community at national level? How is the quality of proposals evaluated?
- How do decision-makers prioritize RI? How do decision-makers prioritize between funding national RI or international RI? Do they take international priorities into account? What support/guidance do they have to take their decision?
- How is public funding for national and/or international RI priorities secured in a country?
- What role does the national RI roadmap play in view of the question above in a country? How and when was the national RI roadmapping introduced? Is the purpose of the national RI roadmap well communicated?

RI Roadmapping / Sampling strategy

1) Choice of national systems: cover broad diversity of national systems

- Centralized vs. federally organized political systems and/or EU Member States vs. Associated Countries
- Countries with established RI evaluation/monitoring procedures
- Number of roadmap updates
- Purpose of RI roadmap: identification of needs vs. listing of priorities vs. funding commitment
- Same vs. different responsibilities/process regarding prioritizing/funding for national and/or international RI

2) Choice of RI: cover broad diversity of RI

RI Roadmapping / Possible case studies

Process within national systems

1. Sweden
2. UK
3. Czech Republic
4. Portugal

Participation in decision-making in research infrastructures

1. ELT
2. ESS, X-FEL
3. BBMRI, ICOS, CESSDA, DAHRIA

InRoad Case study design

RI FUNDING

RI Funding / Research problem

The **diversity of funding instruments** used by RI at different levels (regional, national and European) and their **lack of suitability for supporting all the needs along the full life cycle** represent a **challenge to the long term sustainability** of Research Infrastructures.

RI Funding / Case study design

- **Main research question:** How to enhance the synchronization and interoperability of different funding schemes throughout each phase of a Research Infrastructure's life cycle?
- **Topics to investigate**
 - Present and past funding instruments used throughout each life cycle stage;
 - Links between RI funding processes and existing strategic priorities and perspective for future decision processes;
 - Design process of funding instruments – the way to promote synchronization and interoperability among different instruments;
 - Different funding models for RI access and operational costs;
 - Models, pros and cons concerning the short, medium and long term funding of RI.

RI Funding / Case study design

Specific questions to address

- Which funding instruments are being or have been used by each Research Infrastructure?
- What stages of the RI lifecycle are being or have been funded with these instruments?
- What are the main limitations of the existing funding instruments?
- What are the reasons (eligibility, legal restriction, costs or others) why some Research Infrastructures are not using some of the existing funding instruments?
- What are the benefits of using these funding instruments in each of the phases of a RI?

RI Funding / Sampling strategy

Rationale for selecting cases

- Equilibrium between ESFRI and non-ESFRI RI, international and national RI
- Representation of all fields of science (including e-RI)
- Representation of all types of RI (single-sited, distributed, virtual)
- Coverage of different stages of the life-cycle (preparatory phase, implementation phase, operational phase), with preference for the latter
- Specific features: untypical funding schemes

RI Funding / Selected cases

Large pan-european facilities	National facilities
AWIPEW Base	BIO-ICT Centre of Excellence
DANUBIUS	CEITEC
DARIAH	CERIT
DESY	CESNET
DNW	MARE NOSTRUM
ELI	NGI
ELIXIR	PRACE PT node
ESS	EngageSKA
ICOS	EIT+
JHR	
MYRRHA	

InRoad Case study design

RI BUSINESS PLANNING

RI Business planning / Research problem

Having a **sound business plan is crucial** for the long term sustainability of Research Infrastructures. However, the **awareness** of the importance of business planning differs a lot from country to country, and so do the **assessment criteria** used to **evaluate RI business plans** in national roadmapping and funding processes.

RI Business Planning / Case study design

- **Main research question:** What do business planning processes entail and how do business plans help ensure long term sustainability of RI?
- **Topics to investigate**
 - Development and use of the business plan; Evaluation of financial aspects and monitoring of operations' progress; the use of the business plan as a management tool for the facility;
 - Long-term sustainability, full life cycle cost of research infrastructures and risk management;
 - Access policy and user strategy in relation with the business plan;
 - Challenges and support measures to improve business planning of RI.

RI Business Planning / Case study design

Specific questions to address

- How are business planning processes inserted in the design, preparatory, construction, implementation and operational phases of the research infrastructure?
- How is the business plan designed?
- What are business plans components?
- Is the business plan used as a strategic document and a management tool to ensure long term sustainability of the research infrastructure and how?
- What support measures are at play for business plan drafting and what is their role in ensuring the RI's long-term sustainability?
- What are the specific challenges encountered by distributed pan-European infrastructures in their business plan drafting?

RI Business Planning / Sampling strategy

Rationale for selecting cases

- Representation of all types of RI (single-sited, distributed, virtual)
- Representation of all fields of science
- Coverage of international and national RI
- Balance in geographical distribution: RI from Western, Northern, Southern and Eastern Europe
- Preference for RI in operational phase, but some in preparatory phase
- Specific features: e.g. update of business plan

RI Business Planning / Selected cases

General case studies

(quantitative approach, common interview guide)

Large pan-european facilities	National facilities
PRACE	DESY
X-FEL	SOLEIL
EPOS	SOLARIS
SHARE	RECETOX
CLARIN	Danish Biobank
ERIHS	

RI Business Planning / Selected cases

In depth case studies

(qualitative approach, common interview guide + tailored questions with focus on a specific feature)

Case study	Node
EIT +	Single-sited, Poland
ELI	Distributed, Czech Republic site
BBMRI	Distributed, Austria (headquarters), Netherlands, Norway
EMBRC	Distributed, France (headquarters)
Norway (country)	Funders + Norwegian nodes of BBMRI, ECCSELL, CESSDA

RI Business Planning / Selected cases

Specific rationale behind choice of in depth case studies

- **Wroclaw Research Center (EIT+)**: single-sited RI, built mostly with structural funds: [impact of structural funding on business plan and access policy of Eastern European RI](#)
- **Extreme Light Infrastructure (ELI)**: interdisciplinary Eastern European distributed RI, AISBL that aspires to become an ERIC: [specific challenges in transition from implementation to operation](#)
- **EMBRC (European Marine Biology Resource Centre)**: business plan recently updated: [use of the business plan as a management tool, rationale behind updating business plan](#)
- **BBMRI (Biobanking and BioMolecular resources Research Infrastructure)**: life sciences distributed RI: [specific challenges when there are several nodes and stakeholders](#)
- **Norway**: strong focus on business cases from policy-makers and funders: [interview of RI and funders to gather insight on strengths and weaknesses of the national process](#)