European Strategy Forum
on Research Infrastructures
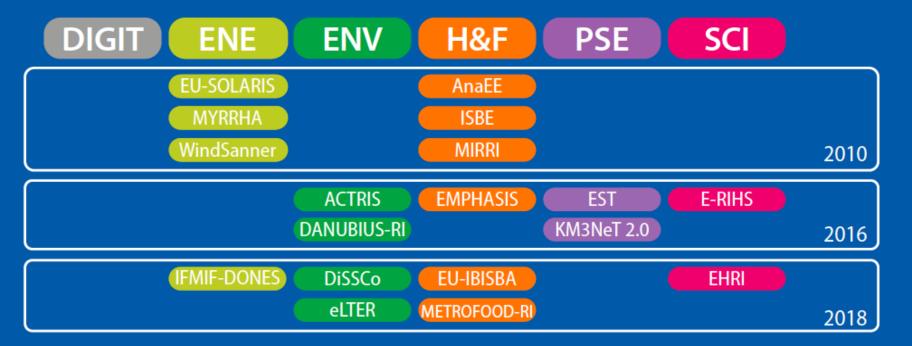
ESFRI

Strategy Report on Research Infrastructures
ROADMAP 2021

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InfoDay

THE ASSESSMENT OF MATURITY OF NEW PROPOSAL: SCIENTIFIC CASE

- For the Technical work, ESFRI is organized in 6 Strategy Working Groups: Digit, Energy, Environment, Health&Food, Physics&Engineering, Social&Cultural innovation.

- Mostly thematic, with multidisciplinary and horizontal aspects.

- The mandate to SWG, in the context of ESFRI Road Map is:
  - **Landscape Analysis**
  - **Periodic Monitoring the scientific aspects of approved Projects and LandMarks**
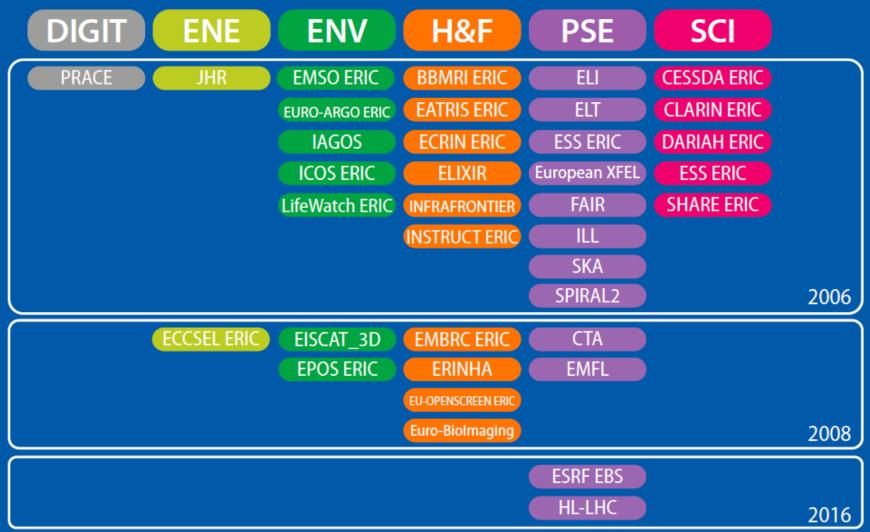 - **Evaluation of the scientific aspects of new proposal**

ESFRI PROJECTS

DIGIT	ENE	ENV	H&F	PSE	SCI

2010

	EU-SOLARIS		AnaEE		
	MYRRHA		ISBE		
	WindSanner		MIRRI		

2016

| | | ACTRIS | EMPHASIS | EST | E-RIHS |
| | | DANUBIUS-RI | | KM3NeT 2.0 | |

2018

| IFMIF-DONES | | DiSSCo | EU-IBISBA | | EHRI |
| | | eLTER | METROFOOD-RI | | |

ESFRI LANDMARKS

DIGIT	ENE	ENV	H&F	PSE	SCI
PRACE	JHR	EMSO ERIC	BBMRI ERIC	ELI	CESSDA ERIC
		EURO-ARGO ERIC	EATRIS ERIC	ELT	CLARIN ERIC
		IAGOS	ECRIN ERIC	ESS ERIC	DARIAH ERIC
		ICOS ERIC	ELIXIR	European XFEL	ESS ERIC
		LifeWatch ERIC	INFRAFRONTIER	FAIR	SHARE ERIC
			INSTRUCT ERIC	ILL	
				SKA	
				SPIRAL2	

2006

DIGIT	ENE	ENV	H&F	PSE	SCI
	ECCSEL ERIC	EISCAT_3D	EMBRC ERIC	CTA	
		EPOS ERIC	ERINHA	EMFL	
			EU-OPENSCREEN ERIC		
			Euro-BioImaging		

2008

DIGIT	ENE	ENV	H&F	PSE	SCI
				ESRF EBS	
				HL-LHC	

2016

THE ASSESSMENT OF MATURITY OF NEW PROPOSAL: SCIENTIFIC CASE

- **The SWGs evaluate the SCIENTIFIC CASE along five dimensions:**

  - **scientific excellence**
  - **pan-European relevance**
  - **socio-economic impact**
  - **user strategy and access policy**
  - **e-needs**

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: SCIENTIFIC EXCELLENCE

	DESIGN	PREPARATION*(NEW PROJECTS)
SCIENTIFIC EXCELLENCE	– long term science programme defined – scientific community well-established – scientific leadership described – cutting edge science and technology outlined	– scientific vision and mission outlined – (multidisciplinary) scientific new frontier outlined – scientific leadership recruited – science concept tested and found feasible – services for the scientific community described – technical maturity and feasibility tested and achieved – cutting edge science and technology described – availability of scientific human resources proven

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: PAN-EUROPEAN RELEVANCE

| PAN-EUROPEAN RELEVANCE | – pan-European approach for scientific area outlined

– targeted user community is pan-European

– national/international facilities with complementary or synergistic potential | – positioning in the RI landscape defined

– case for European added value defined
– research capacity and current/potential geographical distribution defined
– links to relevant RI and other large pan-European programmes identified |

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: SOCIO-ECONOMICAL IMPACT

SOCIO-ECONOMIC IMPACT	– relevance to societal challenges identified and potential economic impact predicted including innovation aspects	- case for impact made:, supporting innovation,, other types of benefits such as services for society, cultural aspects and attraction of business, industry and public services etc.

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: USERS STRATEGY &ACCESS POLICY

USER STRATEGY & ACCESS POLICY	– Vision about user community – Access modes described	– Identified user categories – survey executed demonstrating expected user community and description of it in terms of origin and size – Identified services based on a clear identification of user demands and needs – Single entry point for users outlined

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: E-NEEDS

E-NEEDS	– vision on e-infrastructure requirements, including access policy and security measures ready – interfacing with communication networks or distributed calculation or HPC/HTC	– conceptual design of e-infrastructure ready – contributions of e-infrastructure resources at all levels (institutional, regional, national, international) described – access policy and Data Management Plan (DMP) outlined – compliance with FAIR principles

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: SCIENTIFIC CASE

- External experts (2-5 with relevant reports)

- Evaluation group inside the SWG (subgroup of 3-5 people, with a "rapporteur"), taking into account technical profile and CoI/Confidentiality

- Coordination with the different SWG for multidisciplinary RI and horizontal aspects (i.e. data policy)

- Independent evaluation by Implementation Group, with very strong coordination and harmonization meetings in the different steps

- Final evaluation report (Scientific and Implementation) to ESFRI-EB

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: SCIENTIFIC CASE

- **These minimal key requirements serve as the basis for the scoring in the evaluations. Meeting minimal requirements is necessary, but not sufficient to be automatically listed in the Roadmap.**

- **The following scoring values are attributed to each dimension following the minimal key requirements described in the annexes II and III:**
  - Very high, i.e. the key requirements are outstandingly met.
  - High, i.e. the key requirements are comprehensively met.
  - Medium, i.e. the key requirements are partly met, but the proposal shows weaknesses with regard to specific requirements. Enhancing the RI's future success requires (significant) changes to (specific parts of) the proposal/plans.
  - Low, i.e. the key requirements are insufficiently met and the evidence for future success of the RI is not convincing.

THE ASSESSMENT OF **MATURITY** OF NEW PROPOSAL: SCIENTIFIC CASE

- **In order to be considered as a Project, a proposal must meet the key requirements for the Preparation Phase and score a grading of at least 'High' for both the SCIENTIFIC CASE and the IMPLEMENTATION CASE. The status of each RI on the Roadmap is a strategic decision of the Plenary Forum that takes into account the outcomes of the evaluations.**

THE ASSESSMENT OF MATURITY OF NEW PROPOSAL: PREVIOUS EXPERIENCE

- We evaluate the scientific excellence on the perspective of Maturity of the project, i.e. the main goal is to be sure that in the period of 10 years the project is implemented. There are 18 projects in the RoadMap and 37 LandMarks. The aim is to include new projects in the RoadMap, that will be implemented in the time frame of 10 years

- Check definition of "implementation phase" (presented in the guide)

- Established communication between the nodes is very important for distributed RI

THE ASSESSMENT OF MATURITY OF NEW PROPOSAL: PREVIOUS EXPERIENCE

- Wide impact of the RI's, in addition to the excellence of science

- Refer to competitiveness-complementarity with existing RI

- **We have a parallel evaluation system (Scientific and Implementation), we work independently and we implement mechanism to collaborate and harmonize. Finally we finish the work with a consensual proposition that we submit to ESFRI-EB**

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Thank you for the attention!