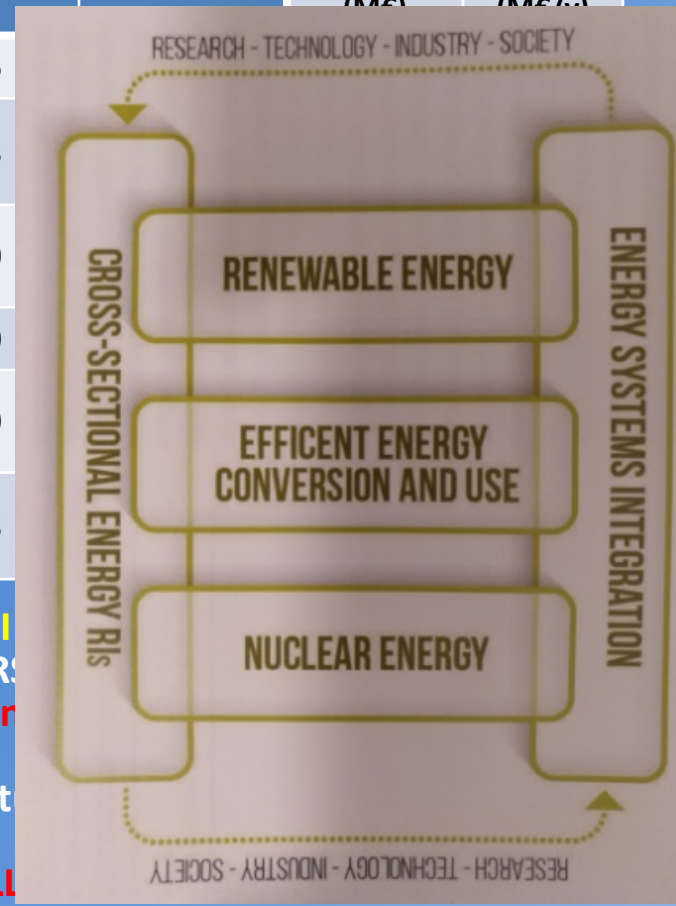


❖ **LANDMARKS:**

- implemented (or nearly implemented, advanced degree of development) RIs
- support interdisciplinary research to address frontiers of knowledge, innovation and society Grand Challenges
- cover six thematic areas: **Energy**, Environment, Health&Food, Physics&Engin., Social&culture Innov., Digital

❖ **ENERGY (ESFRI Roadmap 2018):**

ACRONYM	FULL NAME	TYPE: D - distrib. S/s: single-sited	ROADMAP ENTRY	OPERATION START	COSTS	
					Constr. (M€)	Oper. (M€/a)
JHR	Jules Horowitz Reactor	S/s	2006			
ECCSEL ERIC	European Carbon Dioxide Capture and Storage Laboratory Infrastructure	D	2008			
EU-SOLARIS	European Solar Research Infrastructure for Concentrated Solar Power	D	2010			
WindScanner	European Windscanner Facility	D	2010			
MYRRHA	Multipurpose hYbrid Research Reactor for High-tech Applications	S/s	2010			
IFMIF-DONES	International Fusion Materials Irradiation Facility – DEMO Oriented Neutron Source	S/s	2018			



❖ **CHALLENGES (Landscape Analysis by the Strategy WG on Energy) and ESFRI**

- **Renewable Energy:** concentrated solar power (mainly by DLR-ENEA-CNR), renewable fuels (biofuels), wind (several countries RIs and the **WindScanner** initiative would enhance ESFRI Landmark EPOS (ENV), ocean.
- **Efficient Conversion and Use:** energy in buildings and industry, CO₂ capture
- **Nuclear Energy:** fusion (**IFMIF-DONES**) and fission (**MYRRHA**).
- **Cross-sectional Energy Ris:** material testing (**JHR, ESRF EBS, ESS ERIC, ILL**)
- **Energy systems Integration:** networks and storage (Smart Grid projects), transport (EU support to low-C investment), smart cities and communities (H2020 projects): NO ESFRI RIs focused activities →

❖ **CONCLUSION: THERE IS STILL SPACE FOR MORE PROJECTS/LANDMARKS IN THE ENERGY ROADMAP 2021 !!**