

The European Energy Research Alliance EERA

ANCRE

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Secrétaire Général

www.eera-set.eu



EERA is an official part
of the EU SET-Plan.

<http://setis.ec.europa.eu/>

Agenda

1. An Introduction to EERA
2. EERA in the EU-SET Plan
3. Strategic Evolution of EERA

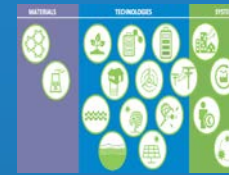
1. An Introduction to EERA

2. EERA in the EU-SET Plan

3. Strategic Evolution of EERA

Most influential energy research community in EU & globally

50 000 +
Experts



17
Joint Research Programmes

250 +
Organisations



All 9
ETIPS and other platforms

30
Countries



35%
Cross-cutting & societal challenges

All 10
SET Key Actions



6 out of 8
Mission Innovation Challenges ... so far

MATERIALS



AMPEA



Nuclear Materials

TECHNOLOGIES



CSP



PV



CCUS



Storage



Wind



Smart Grids



Ocean



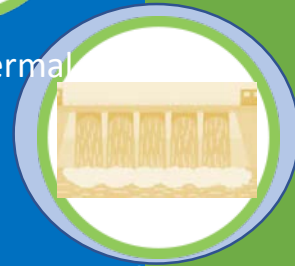
FC + H2



Geothermal



Bio



JP Hydro - New



EE in Industry



Smart Cities



Society, Environment & Economy

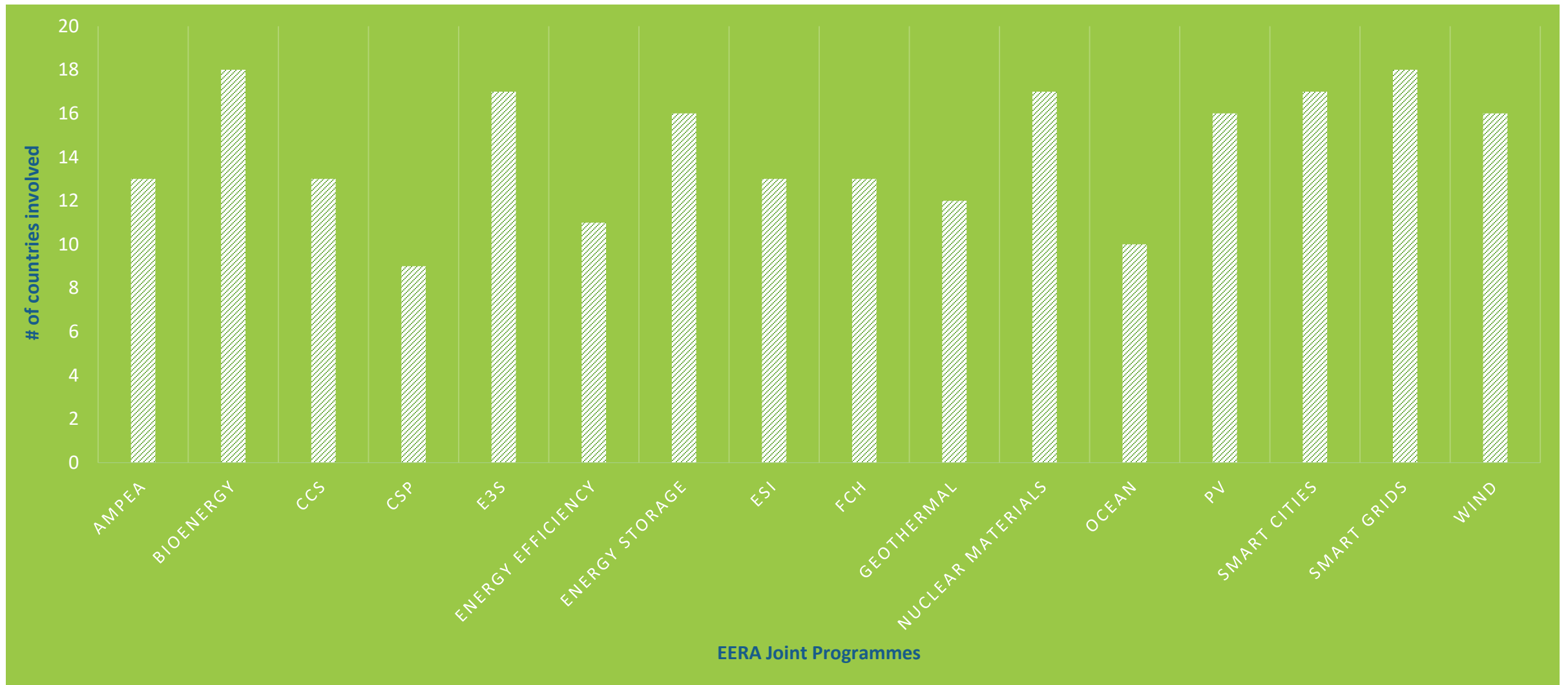


System Integration

EERA Joint Programmes – What they are

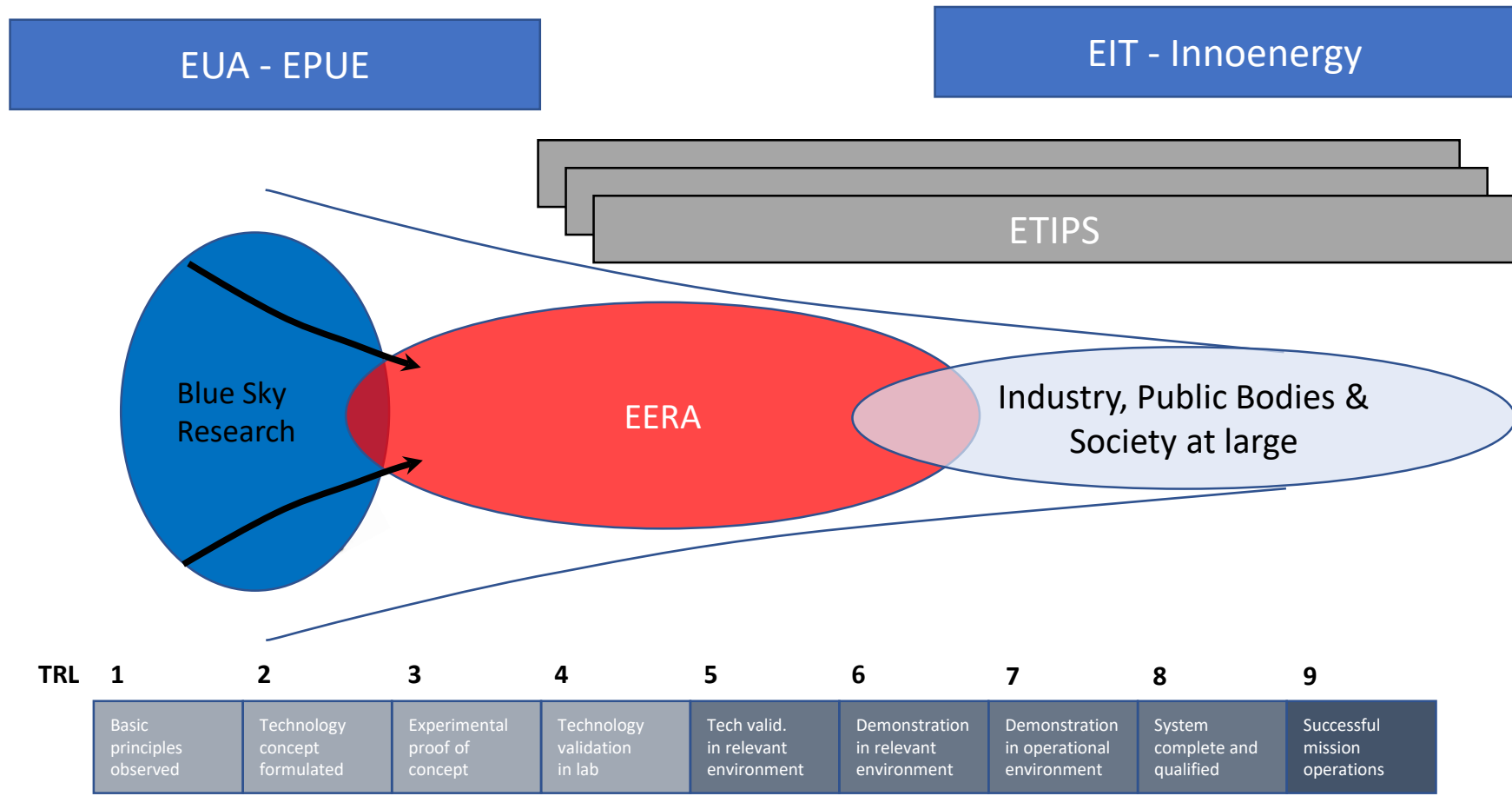
1. A Strategic Permanent Collaboration between research organizations constituting a virtual center of excellence
2. Organized in 17 themes dynamically reviewed and aligned with EU SET Plan priorities
3. Defined by a “Description of Work” (DoW) setting
 1. Objectives
 2. Research agenda
 3. Resources
 4. Added value
4. Run through a formal Joint Programme governance structure
 1. Under leadership of a JP Coordinator
 2. Clear management and monitoring framework (SPC, SC, MB, Reviews, Hearings)
 3. Focus on Scientific Excellence
 4. 2 levels of Participation
5. Access open to all based on assessment of scientific contribution

MS/AC subscription in EERA Joint Programmes



EERA positioning in the R&D landscape

TRL level 2-7, with a strong focus on TRL 2-5



EERA positioning in the R&D landscape



Source: DG RTD presentation on EU SET-Plan - October 2018

Value Proposition to multiple beneficiaries

EERA Members

Unique network

Better success rates

Being part of new initiatives

Political influence

European Commission

Trusted Advisor

Hub for international co-operation

Mobilizing MS/AC resources

High quality and independent reports

Member States/Associated Countries

Knowledge sharing platform

Mobilizing knowledge and resources

Supporting national strategies

Industry

Pool of knowledge

Start new projects

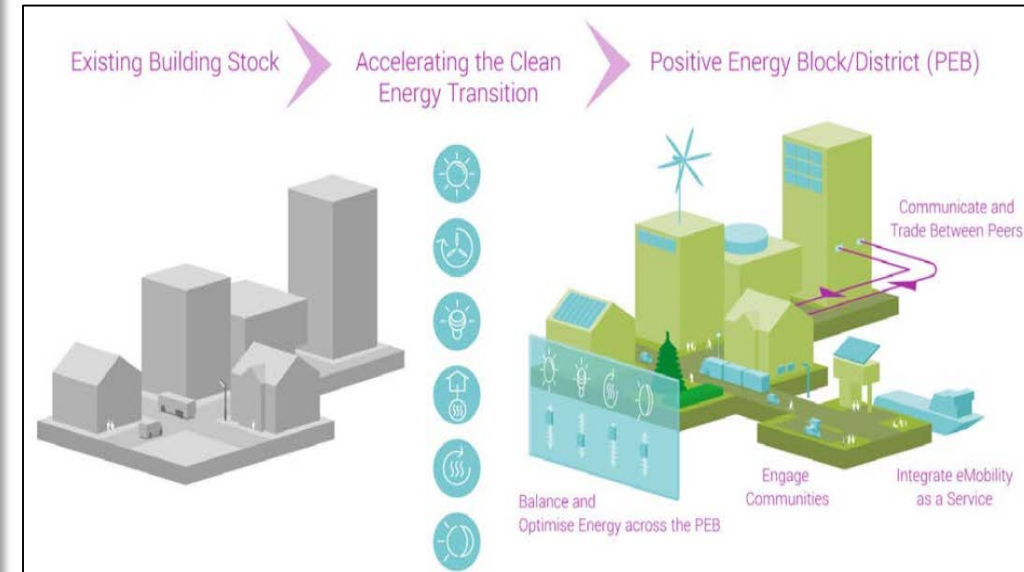
(Cross-) sectorial workshops

Example of (cross) JP-related Initiatives

IP Repository & Web Showcase

Position Paper High Temperature Materials

Virtual Smart City Platform



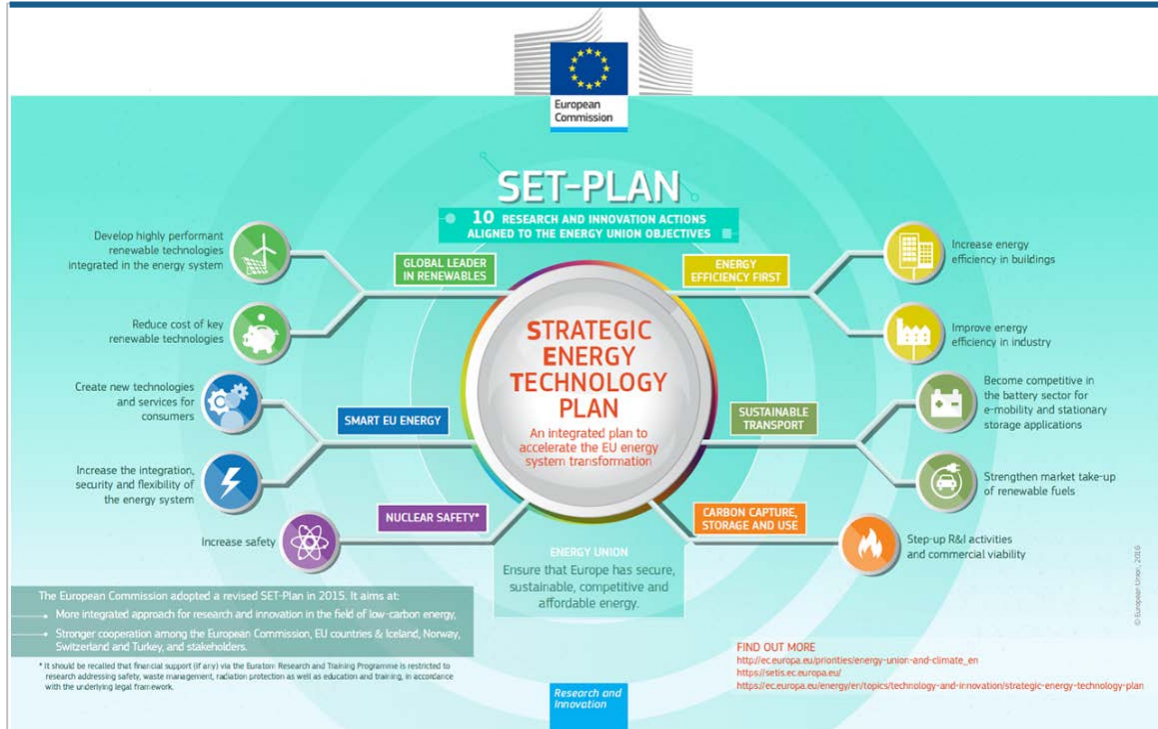
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1. Delivering on the EU SET Plan: 14 IWGs ©










SET Plan Progress



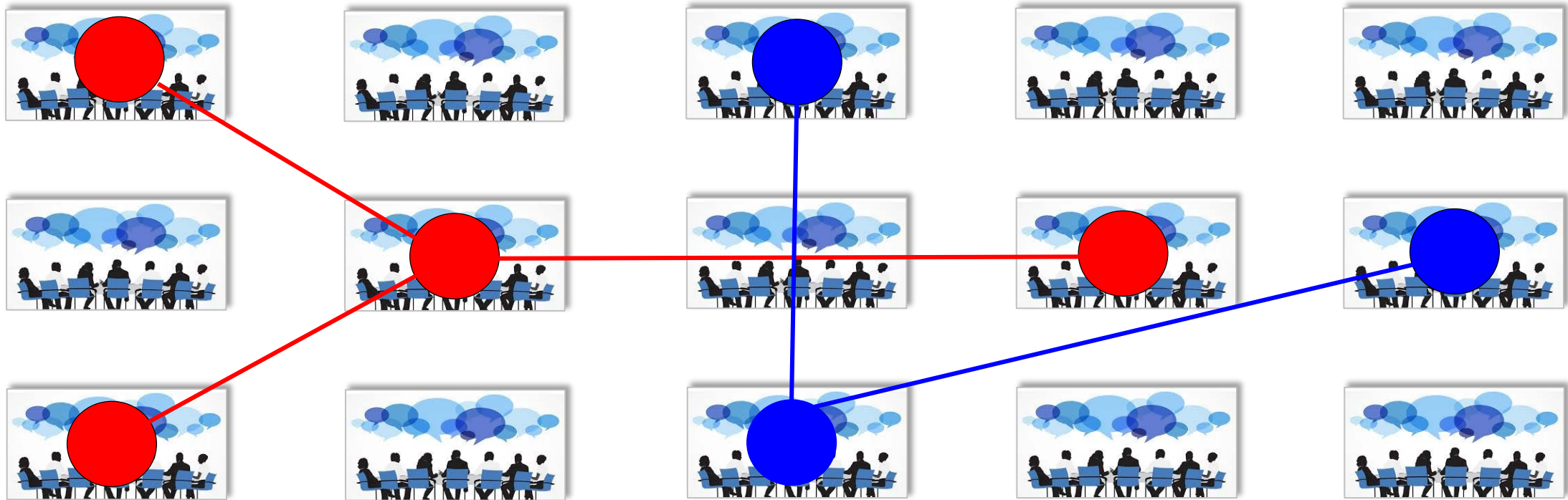
1.1. - Scientific Contribution: JPs expertise in 14 IWGs ©

Action	IWG	EERA JP
1&2	Concentrating Solar Power/Solar thermal electricity	 JP CSP
1&2	Photovoltaic	 JP PV
1&2	Deep geothermal systems	 JP Geothermal
1&2	Offshore wind	 JP Wind
1&2	Ocean energy	 JP Ocean
3,1	Smart solutions for energy consumers	 JP E3S
3,2	Smart cities and communities	

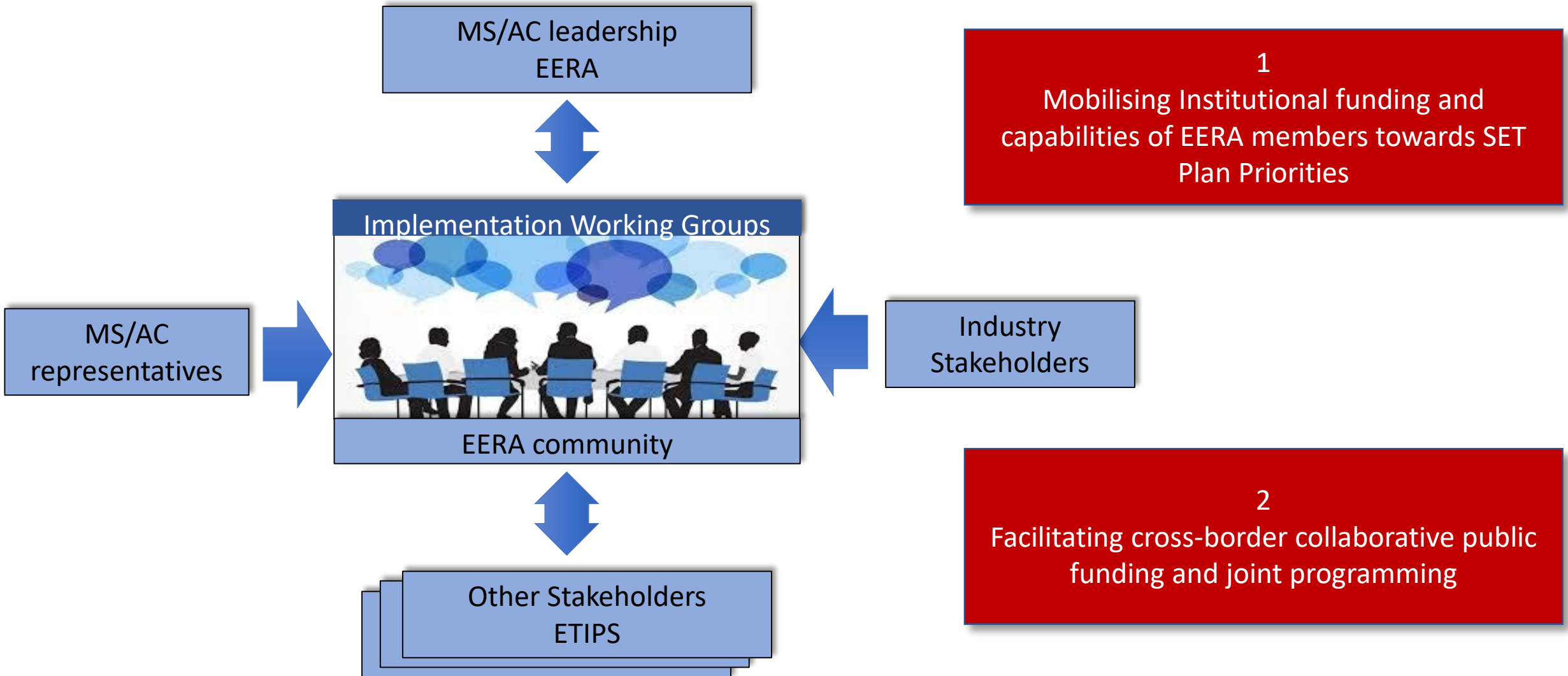
Action	IWG	EERA JP
4	Energy systems	
5	EE for buildings/Renewable heating and cooling	
6	EE for industry	 JP EEI
7	Batteries for e-mobility & stationary storage	 Energy Storage
8	Renewable fuels & bioenergy	 JP FCH & JP-Bio
9	Carbon capture and storage/use	 CCS - Carbon Capture and Storage
10	Nuclear energy	 JOINT PROGRAMME ON NUCLEAR MATERIALS

1.2. Scientific Contribution - System View: SET-4-22 CSA (EERA AISBL)

EERA holistic expertise
Bringing the Systemic Dimension to EU SET Plan



1.3 - Political contribution to EU SET Plan : SET-4-22 CSA (EERA AISBL)



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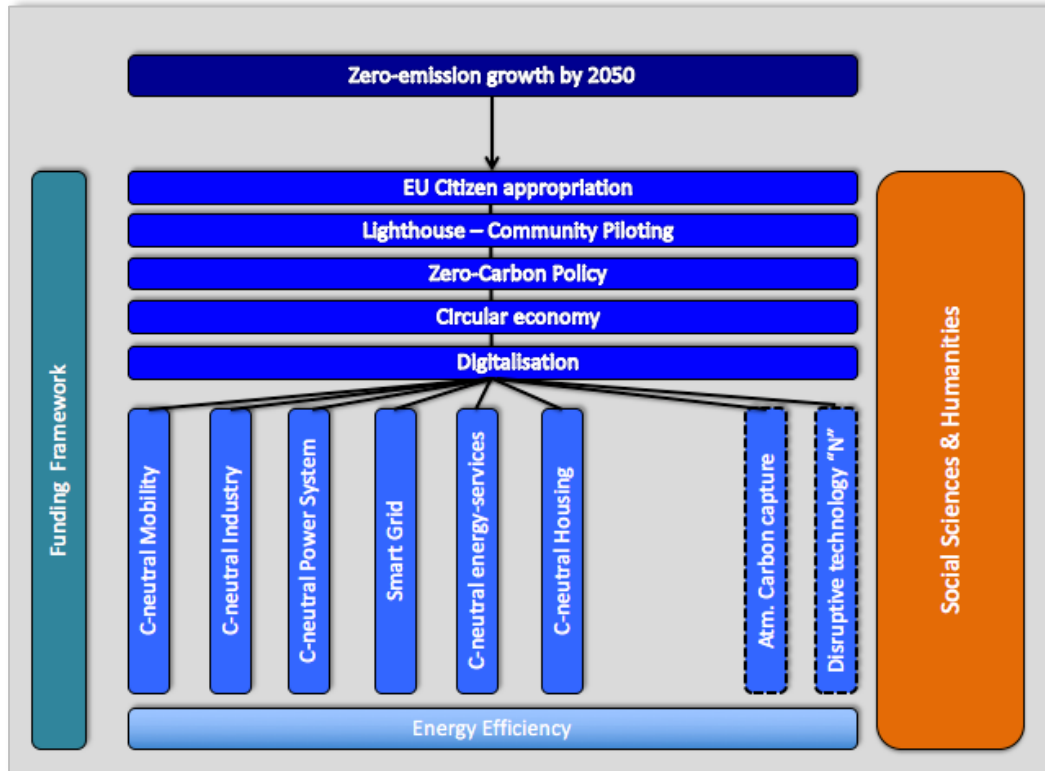
3. Strategic Evolution of EERA

2. - Missions & FET Flags



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Mission Input to Horizon Europe

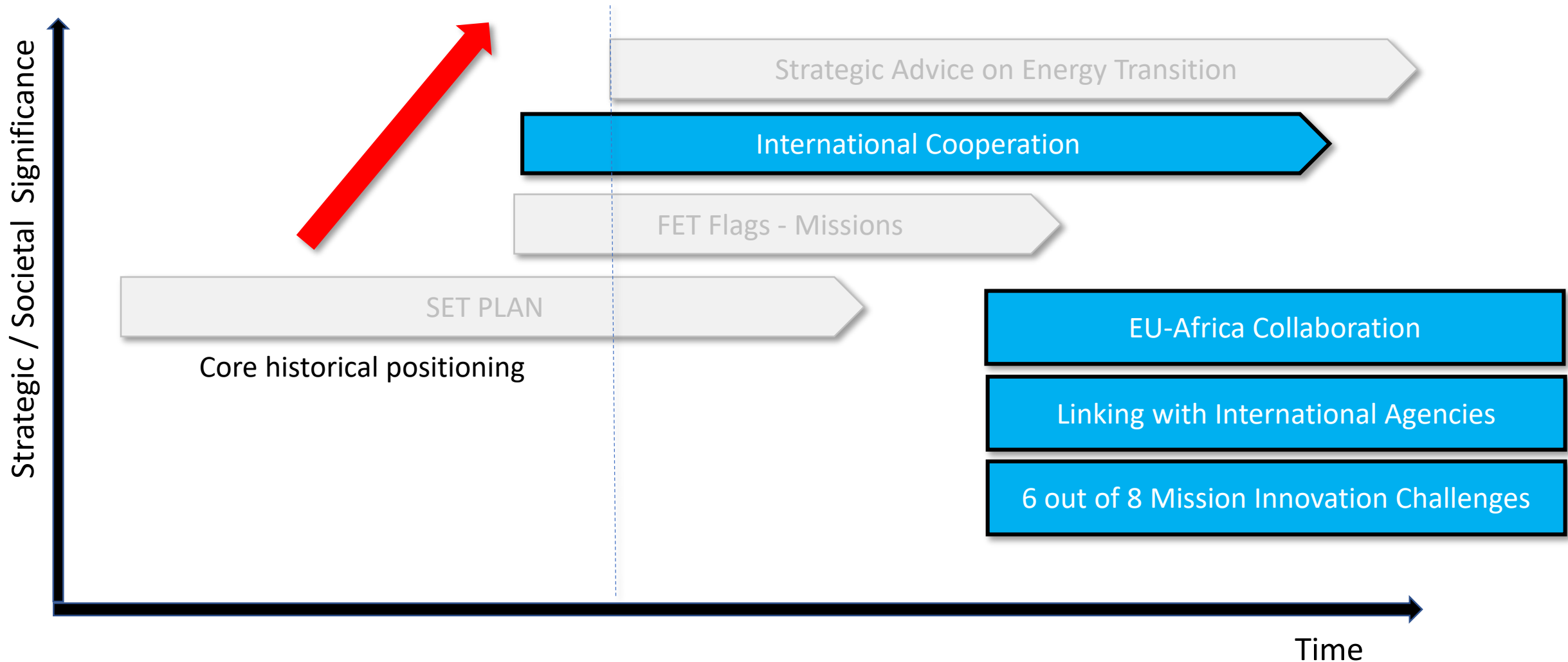


Leading on FET Flagships



Re-submission of EERA's Mission input Q1 2019

3.- International Cooperation



PRE-LEAP-RE : Joint EU-AU R&I partnership on RE

- PRE-LEAP-RE is a 14 months CSA; Prepares the ground of a future European Joint Programme (EJP) financed by half by EC (15 M€)
- Led by CEA, it gathers 17 partners across Africa and Europe jointly committed to strengthening framework for cooperation in science, technology and innovation (STI)
- EERA in charge of defining R&I agenda
Constitution of a multidisciplinary Expert Group
With 25 experts from 8 JPs

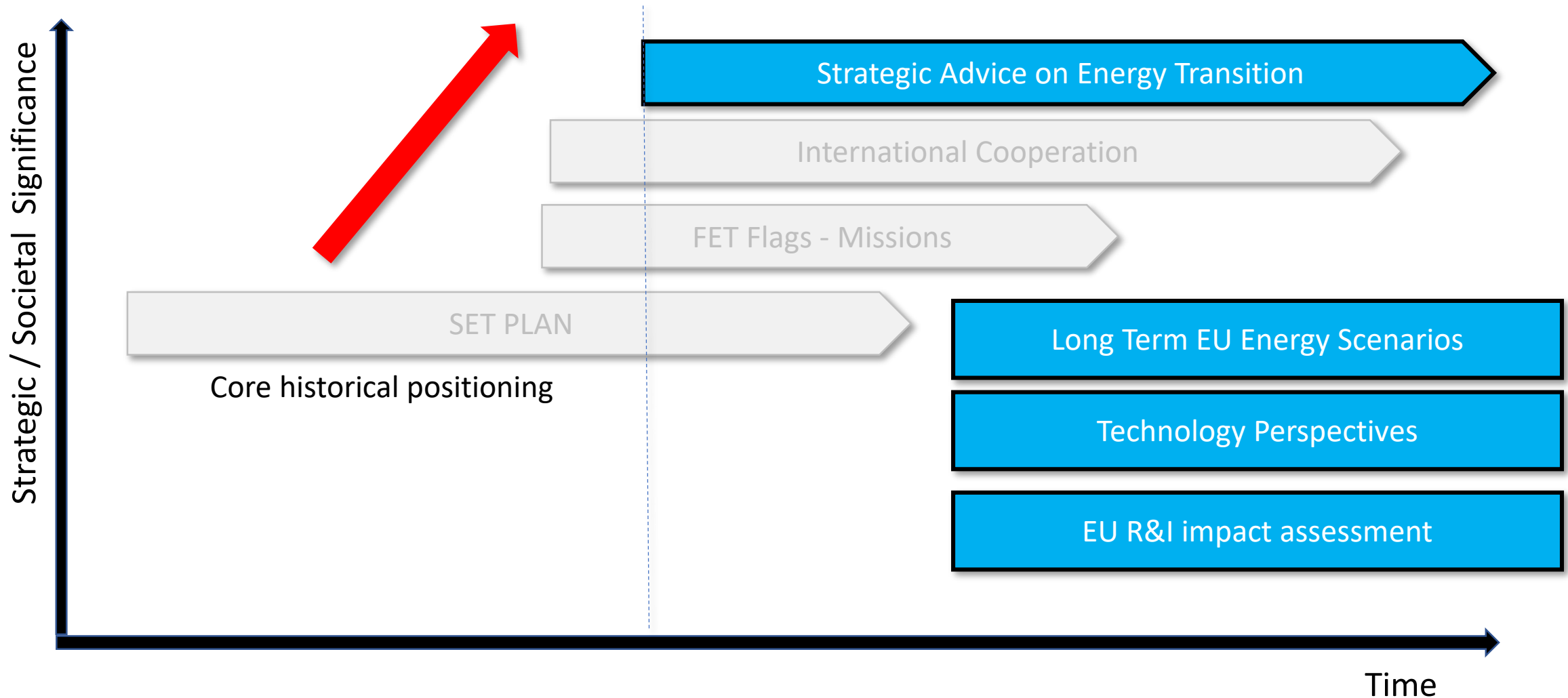


EERA JP	Nb experts	Appointed experts	Organisation
PV	5	Ralph Gottschlag Matthias Erbert Tsvetelina Merdzhanova Agbo Solomon Nwabueze Antonio Baustista	Fraunhofer Fraunhofer FZ Julich FZ Julich Cleanergetic
CSP	2	Felix Tellez Pedro Horta	CIEMAT Fraunhofer
Geothermal	3	Isabella Nardini Bernard SANJUAN Simona Regenspurg	HS Bochum BRGM GFZ Postdam
Wind	2	Jens Carsten Ivan Norgaard	DTU DTU
Ocean	1	Ana Brito e Melo Andrea Monti Walter Zegada-Lizarazu	Wavec UNIBO UNIBO
Bioenergy	7	Patricia Thornley Giulio Allesina Simone Pedrazzi Paolo Barge Antonis Kokossis Isabelle Südmeyer Mohamed Mamdouh	Aston U Unimore Unimore Unito NTUA KIT
Storage	4	Elkadragy Manuel Baumann Giovanna Cavazzini Knut Kappenberg	KIT KIT Unipd EFZN
ESI	1	Peter Breuhaus Thomas Poppinga	NORCE DLR-VE

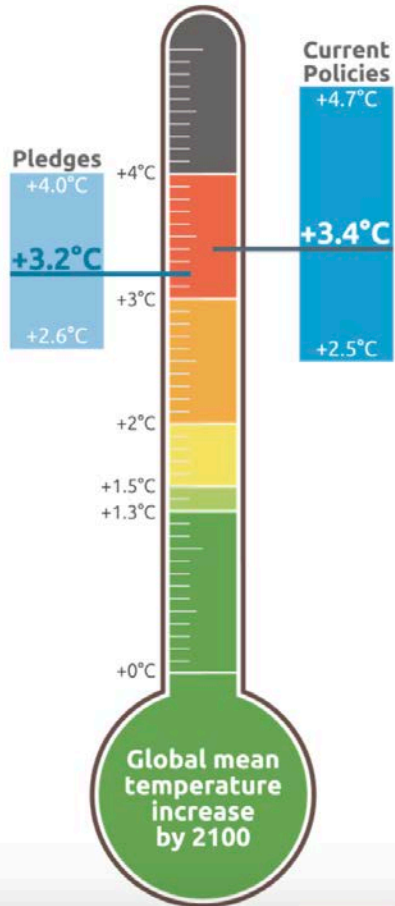
3.- International Cooperation: Mission Innovation

		Australia	Austria	Brazil	Canada	Chile	China	Denmark	EC	Finland	France	Germany	India	Indonesia	Italy	Japan	Mexico	Norway	Republic of Korea	Saudi Arabia	Sweden	The Netherlands	UAE	UK	USA
JP-Smart Grid	1	Smart Grids Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	2	Off Grid Access to Electricity Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JP-CCS	3	Carbon Capture Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JP-Bio	4	Sustainable Biofuels Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JP-Ampea	5	Converting Sunlight Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JP-Ampea	6	Clean Energy Materials Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	7	Affordable Heating and Cooling of Buildings Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JP-FCH	8	Hydrogen Innovation Challenge	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

4. Strategic Advice on EU Energy Transition



Very Last Call to Act



CAT warming projections
Global temperature increase by 2100

November 2017 Update



“The world risks crossing the point of no return on climate change”

***Antonio Guterres, Secretary General UN
Monday 10 September 2018***

Co-ordinating Energy Research for a Low Carbon Europe

Adel El Gammal
Secretary General
www.eera-set.eu

