

D2.1
Annual Summary Report on Coordination and Alignment Activities (Y1)



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Coordination and Support Action



EERASE3



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Annual Summary Report on Coordination and Alignment Activities

1.1 Introduction

The purpose of EERA is to strengthen and expand Europe's capabilities in sustainable energy research by supporting alignment of European energy research in line with SET-Plan priorities. Whereas EERA's efforts on alignment were primarily on institutional alignment at the start of its establishment (2008), EERA has taken one step further in its development by extending and complementing the institutional alignment to/with national alignment, thus streamlining national resources in coherence with national research agendas and between Member States (MS)/Associated Countries (AC). Typical alignment activities include mobility of researchers, use of infrastructures, development and use of common database, and so.

In particular, activities aiming at fostering coordination and alignment of research agendas in the first ten months of EERASE 3 have been primarily channelized and accomplished through:

- JPs (Joint Programmes) strategic development
- Participation to SET-Plan process and to SET-Plan stakeholder fora

In the report, main findings and approaches to enhance EERA's role coordinating European energy research towards SET-Plan goals and a better alignment at the national level are summarised, basing on support provided by the Secretariat to JPs strategic development.

1.2 Alignment through JPs strategic development

With over 175 members from research organizations, universities and their national research alliances representing the EU energy research community, covering all areas of the SET-Plan, from technologies to cross-cutting issues relating to the systemic nature of the energy transition, EERA has a unique position to contribute significantly to alignment of research agendas, both **institutionally** and **nationally**.

In order to foster these alignments through our JPs, the EERA Secretariat has concentrated efforts on:

- Support to JP Management Board (MB)/Steering Committee (SC) meetings
- Support to JP Coordinator meetings (JPC)
- Organisation of a yearly Summer Strategy Meeting (SSM)

1. Support to JPMB/JPSC meetings

The well-functioning operation of the JPs, being the core activity of EERA, is fundamental to progress on the degree of any kind of alignment. This implies moving from a basic level of coordination based on exchange of knowledge and information on national R&D agendas, to a cooperation on common R&I agendas and further to joint R&I projects and programmes through using variable mix of funding instruments and tackling cross-cutting topics.

In this respect, the Secretariat has a fundamental role in providing day-to-day operational support to the JPs. This has been partly done through the Secretariat's participation in and facilitation of the main governance and strategic meetings in the JP, namely JPMB and JPSC meetings, typically organized once or twice a month in the case of JPMB meetings, and once or twice a year for JPSC meetings. The participation of the Secretariat has ensured a regular and aligned information flow as well as share of best-practices from/to the JPs, contributing to

an increased awareness of the need for institutional and national alignment of research agendas at JP level and an enhanced realisation of these alignments.

The Secretariat has made use of a presentation commonly presented in all JPMB/JPSC meetings harmonising a significant number of topics (see below) that intrinsically denote alignment.

- Assessing and Communicating results
 - Key Performance Indicators (institutional alignment)
 - JP characterisation (institutional alignment)
- Strategic and policy issues
 - Dialogue with the Commission (national alignment)
 - European Common Research & Innovation Agendas (ECRIAs) - (national alignment)
- SET-Plan Implementation (national alignment)

2. Support to JPC meetings

The increased awareness of the need for alignment and fostering of it has also been accomplished by facilitating discussions on alignment through dedicated meetings/workshops with the JP Coordinators, often with the active participation of the European Commission – Directorate-General for Research & Innovation (DG RTD). These meetings have enabled in-depth discussions and clarifications on the role that EERA should have on national alignment, with special emphasis on the ongoing SET-Plan Implementation Plan and Temporary Working Groups' activities. In particular, the JPC meetings have addressed the following issues:

- Legibility of EERA's undertakings and actions to the governmental authorities, in particular the SET-Plan Steering Group, facilitating common understanding and thereby supporting alignment
- Impact of IRPs (Integrated Research Programmes) and ECRIAs calls on institutional and national alignment.
 - *IRP*: The IRPs have contributed to support alignment at the national level. Although impact on national research programmes, where established, can be hardly assessed, the progressive identification of common R&D priorities and steering of relevant institutional funding can be reported as a substantial achievement

IRP	Qualitative (QL) and quantitative (QT) impacts to alignment
CHEETAH (JP Photovoltaics)	<ul style="list-style-type: none"> ▪ QL: definition of unified research targets for the whole sector and at EU level ▪ QL: integration of programmes for researchers to above critical mass on an European scale
ELECTRA (JP Smart Grids)	<ul style="list-style-type: none"> ▪ QT: smart grid researcher exchange programme ELECTRA REX, with a total of 21 researcher exchanges between 9 MS/AC after 36 months (per Nov 2016) ▪ QT: establishment of a European smart grid research infrastructure database containing more than 190 research infrastructures from over 45 institutes ▪ QT: national projects' contribution to IRP: > 60 M€/year
IRPWIND (JP Wind)	<ul style="list-style-type: none"> ▪ QL: IRP Wind moved from national to institutional alignment, building upon and strengthening coordination amongst its member organisations to develop common vision, strategy and activities ▪ QL: By having the support to work closely together, IRP has allowed the development of common projects including on mobility, joint experiments and open data/data management

	<ul style="list-style-type: none"> ▪ QL: The Mobility Programme connects relevant national projects/Initiatives to the IRP Wind Energy core projects and more generally to EERA JP Wind, with an eye to future emerging technologies and scientific topics ▪ QL: The open data/data management model - aiming at a new comprehensible metadata and taxonomy for wind energy research – has been taken up by the IEA, thus having an impact on the global wind energy community
STAGE STE (JP Concentrated Solar Power)	<ul style="list-style-type: none"> ▪ QL: greater cohesion in the CSP/STE sector, strengthening cooperation between R&I centres and industry as well as with international actors ▪ QT: national projects' contribution to IRP: ~100 M€ ▪ QT: other EU projects' contribution to IRP: ~80 M€ ▪ QT: national projects' funding of IRP's industrial cooperation partners: ~100 M€ ▪ QT: EU project funding of IRP's industrial cooperation partners: ~200 M€

- *ECRIA*: This type of call is perceived as a support to national alignment of research activities based on existing projects and shared EU-national priorities. Although ECRIAs are at the starting block, their contribution to support bottom-up approaches to alignment is perceived as of high value. The ECRIA calls, since they ask to assess and address gaps among national research agendas, fit perfectly with JPs mission, based on identification of RD&I priorities which are necessary to step up and progress delivery on SET-Plan goals. In this respect, they are complementary to other instruments such as the ERANETs. It is worth to recall the main objectives of the ECRIA projects and their expected contribution to the SET-Plan goals:

- **BALANCE**: The project goal is to align EU research capabilities to accelerate the development of an European Reversible Solid Oxide Cell (ReSOC) technology. ReSOC is an electrochemical device that converts electrical energy into hydrogen or alternatively fuel gas to electrical energy, characterised by a high efficiency compared to competing technologies. It is expected to play a relevant role in the transition since it enables to store renewable electricity when it is produced in excess or to convert it into a CO2-free transport fuel.

The ReSOC technology – and therefore the ECRIA project - contributes to SET-Plan Key Action 4 "Increase the resilience, security and smartness of the energy system", and in particular to the targets of flexibility and economic efficiency of the Energy System as stated in the corresponding Declaration of Intent.¹

- **INSHIP**: the project focuses on heat generation from solar technologies for application in the industrial sector to contribute to the development of sustainable industrial production. Despite this is recognized as the application with highest potential among solar heating and cooling applications, Solar Heat for Industrial Processes (SHIP) still has a modest share of total installed solar thermal capacity since technology is not mature nor competitive.

The main objectives of the projects – develop technological solutions for high temperature processes in Energy Intensive Industries and foster an integration of SHIP in the overall energy system – are indeed relevant to achieve several of the SET Plan goals. In particular, they are related to Key Action 1 and 2 “Number one in Renewables”, as well as to Key Action 6 "Make EU industry less energy intensive and

¹ SET Plan – Declaration on Strategic Targets in the context of an Initiative on Energy Systems (Brussels, 19th October 2016). Document retrieved on: https://setis.ec.europa.eu/system/files/integrated_set-plan/declaration_action4_energy_systems.pdf

more competitive, and Key Action 4 "Increase the resilience, security and smartness of the energy system" (increasing energy efficiency in heating and cooling).

- **AMBITION:** the project focuses on advanced biofuel production based on lignocellulosic biomass and on subsequent linking of energy systems (grid electricity and biofuels in particular) to improve overall efficiencies. It is of special relevance the integration of biofuels production into today's energy system, particularly linking hydrogen intermittent power to biofuel production, and CO₂ from internal recycle streams and other industrial process streams.

The core activities are directly linked to two of the thirteen themes of the SET-Plan Integrated Roadmap, namely T13 "Biofuels, fuel cells & hydrogen, alternative fuels", and T8 "System flexibility, and indirectly associated with two additional themes, i.e. T7 "Energy storage, and T11 "Carbon capture and storage". When translating these four SET-Plan themes into SET-Plan key actions, the core activities are part of Key Action 4 "resilience and security of energy system" and Key Action 8 "renewable fuels". On the other hand, and in an indirect manner, Key Actions 6 "energy efficiency for industry", and 9 "CCS/U" are also relevant to the project.

SmILES: the project zooms in simulation and optimisation of smart storage in local energy systems for increasing the understanding and transparency of innovative multi-energy projects. Setting up a shared data and information platform and effective dissemination of related results will contribute to competence building.

The research in SmILES addresses three of the thirteen themes of the SET-Plan Integrated Roadmap, namely T7 "Energy storage", T8 "System flexibility and T9 "Smart Cities and communities", and more indirect T6 "Modernising the electricity grid". The corresponding SET-Plan key actions are mainly part of Key Action 1 "Performant renewable technologies integrated in the system" and of Key Action 4 "Resilience and security of energy system". In a lesser extent, the project activities also contribute to Key Action 5 "New technologies for buildings".

- Organisation of workshops/webinars on cross-cutting issues such as shared use of infrastructures and databases, common source Software as well as Materials for energy applications.
- How to stimulate alignment through EERA actions and activities in the JPs, with in-kind contribution of EERA members and searching for potential external national and European funding
- Open Access as a communication tool for alignment
- Publication of position papers to support coordination and alignment at the institutional level and influence alignment of national research agendas

3. Organisation of the yearly Summer Strategy Meeting

The EERA Secretariat organizes annually a Summer Strategy Meeting (SSM), in close collaboration with the host institution, where the meeting is held, and the Executive Committee (ExCo). These strategic meetings involve the participation of ExCos, Personal Representatives (PRs), JPCs and Member State (MS)/Associated Country (AC) representatives. This year the SSM was held in Vienna on 30-31 May, with AIT as host institution.

This SSM 2017 has been focused on alignment. The acceleration of the SET-Plan process and the clear need to identify EERA's role in mobilizing MSs/ACs to support implementation of the identified key R&D priorities, called for an in-depth discussion involving all EERA components. The table below lists the discussion topics addressed in the various sessions of the meeting:

Table 2. Discussion topics during SSM 2017.

Discussion topics with external stakeholders	Discussion topics for the EERA community
EERA's impact on the SET Plan	Vision for JPs strategic development
EERA's collaboration with industry	How to foster cross-cutting activities between JPs
EERA and alignment of Member States programmes	
EERA's impact on top research output and on creating top research portfolios and consortia	

The main outputs/outcomes of the aforementioned discussion topics are summarized below:

3.1 Discussion topics with external stakeholders

- EERA's impact on the SET Plan.
 - EERA's greatest contribution to alignment in the framework of the SET-Plan is through institutional alignment of energy R&I agendas in a bottom-up approach by which JP's commit themselves to align research priorities and activities with the SEP-Plan. An evidence of that is the ongoing process of revision of the JPs' DoW, integrating evolving SET-Plan objectives and priorities. The SET-Plan is thus perceived as a "living policy" for the research community, which on the one hand contributes to the SET-Plan objectives and, on the other hand, it influences their definition. A second distinct example of institutional/national alignment in a bottom-up approach is the influence that JPs have had on national funding agencies on proposing and establishing ERA-Nets calls on specific energy topics. This has been for instance the case for JP Energy Efficiency on Industrial Processes and the ERA-Net IndEff on industrial Energy Efficiency.
 - However, EERA's revised strategy, supported by the EC, actively fosters top-down alignment by improving dialogue and engagement with MSs/ACs. There is a need to improve the messaging to political decision makers, being less scientific and more politically oriented. For this purpose, the preparation of an EERA's vision paper on energy technology in the EU has been suggested.
 - With regards to the ongoing SET-Plan Implementation plan process, EERA is actively involved in all TWG's, addressing cross-cutting challenges and providing prioritized implementation plans for each of the TWG's. In order to ensure continuation once the TWG's assignment is completed, EERA foresees the need to maintain dialogue with some kind of structure and align with present and current work programmes.

- EERA's collaboration with industry
 - In general, the collaboration between EERA JPs and industry is well established, mainly through the European Technology and Innovation Platforms (ETIPs), but not exclusively. Currently, a significant number of JP management teams participate actively, as representative of the energy research community, in the following industrial platforms:
 - ETIP Wind, ETIP PhotoVoltaic (ETIP PV), ETIP Bioenergy, ETIP Zero Emission Platform (ETIP ZEP), Sustainable Nuclear Energy Technology Platform (SNETP), Energy Materials Industrial Research Initiative (EMIRI), Ocean Energy Europe, European Geothermal Energy Council, The European Innovation Partnership on Smart Cities and Communities marketplace, Smart Networks for Energy Transition
 - The collaboration between EERA JPs and industry has also been accomplished through drafting of common roadmaps. As an example, the European Association for Storage of Energy (EASE) and EERA JP Energy Storage published joint recommendations for European energy storage technology development roadmap towards 2030
 - The ECRIA projects, allowing primarily for alignment of MSs/ACs project, shall be considered as potential hubs for collaboration with industry as well.

- EERA and alignment of Member States programmes.
 - Continue fostering alignment through national platforms such as ANCRE, NERA, BERA, CERA, etc, to create real meeting points with policy makers and through ESFRI (European Strategy Forum on Research Infrastructures) and existing well-functioning funding instruments such as ERANETS (European Research Area Net).
 - Creation of additional national alignment could be accomplished cooperation between national (virtual) Centres of Excellence/Flagships. Given the fact that i) such centres/flagships are up and running, i.e., national funding is already committed, and ii) usually require public national funding as well as resources from industry, public-private alignment would be clearly enabled.
 - Mission Innovation has also been identified as an extremely important global initiative to contribute to alignment on clean energy research and development. On this basis, EERA took the decision to establish a dedicated task force on international cooperation where Mission Innovation will be key. The initialisation and implementation of this task force to discuss and give content to the role that EERA shall adopt in this initiative shall take place during this fall 2017.

- EERA's impact on top research output and on creating top research portfolios and consortia
 - Develop high experience, cross-cutting roadmaps with the expertise of the whole EERA:
 - Technology roadmaps
 - Roadmaps including several technologies
 - Roadmaps including social and socioeconomic viewpoint (e.g. active consumers)
 - Activate and increase mobility and sharing resources
 - Sharing of best practises between all the JPs
 - Sharing information and harmonization e.g. on project proposal generation and consortium development targeting the best results

3.2 Discussion topics for the EERA community

- Vision for JPs strategic development
 - The JPs are actively contributing to alignment of research agendas and definition of technology roadmaps shared with industry and relevant stakeholders. The cooperation in the JPs is also leading towards a specialization and better use of research infrastructures, thus reducing duplication.
 - Cross-cutting issues such as materials and horizontal aspects such as market, consumer, non-technology barriers, etc. are recommended to be better addressed in the JP research programmes, thus contributing to alignment.

- How to foster cross-cutting activities between JPs
 - The mind-shift on the focus of EU framework programmes, from a technological focus on FP7, through societal challenges on H2020, and moving towards a mission-driven focus on the upcoming framework programme beyond H2020, invites to reinforcing alignment.
 - EERA shall identify which SET-Plan energy challenges/missions (e.g. zero emission mobility) require a multidisciplinary solution approach, with the involvement of several EERA JPs and facilitate discussions on how to ensure alignment with MSs/ACs and industrial stakeholders.

1.3 Key findings

A number of key findings can be driven from the coordination and alignment activities conducted during the first ten months of the EERASE 3 project and reported in this document.

In terms of accomplishments, it can be stated that alignment through the EERA Joint Programmes have contributed to:

- Improve harmonisation of energy research agendas and priorities
- Strengthening research capabilities at institutional and national level
- Strengthening the European research area, by providing a platform for a continuous exchange among research organization and universities, with particular efforts on how to better integrate the EU-13 countries (e.g. Poland, Czech Republic)

There are, however, a number of constrains to be overcome:

- The degree of activity at JP level, due to the fact that most of them act on voluntary efforts
- The challenging recognition that EERA JPs have at national level
- Limited resources to fund joint research activities

Through EERASE3, we will build on the findings and activities undertaken so far to support the development of the Joint Programmes, both internally (through e.g. cross-cutting initiatives) and externally, supporting the JPs in the collaboration with decision makers, industry and other relevant stakeholders. In the short term, this will be achieved by putting efforts on screening and comparing existing and new funding instruments promoting European energy research and on drafting a proposal to foster collaborative research and alignment of national resources (including infrastructure) to be usefully addressed within EERA.

ANNEXES

ANNEX 1: Standard presentation to JPs (Spring 2017)



JP STEERING COMMITTEE


UPDATES FROM THE SECRETARIAT

- Spring 2017 -

www.eera-set.eu

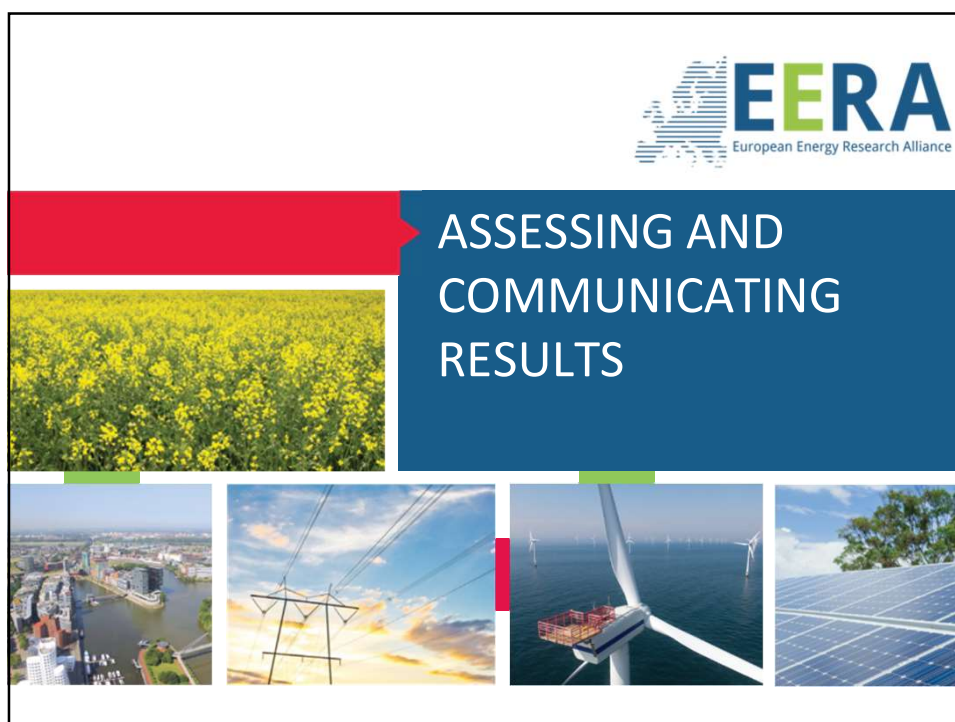



EERA is an official part of the EU SET-Plan.
<http://setis.ec.europa.eu/>



Outline

- . ASSESSING AND COMMUNICATING RESULTS
 - . KPIs
 - . JP hearings and reviews
 - . JP characterisation
 - . IP repository
 - . Success stories
- . STRATEGIC AND POLICY UPDATE
 - . Dialogue with the Commission
 - . ECRiAs
 - . SET-Plan Implementation
- . EERA AISBL GOVERNANCE
 - . Affiliation to EERA: procedure and documents
 - . Affiliation to EERA: running without PPYs
 - . JPs' membership fees
 - . Secretary General
 - . ExCo link renewal
 - . Mobility
- . EERA events
 - . Upcoming events
 - . Events outcome





KPIs

8 KPIs

Energy Union

Reported

8 KPIs related to the 7 expectations agreed with the EC


Represent EERA contribution to the State of the Energy Union Report

Reported yearly in September

1. To play an advisory role
2. To implement SET-Plan actions
3. To act as a SET-Plan ambassador
4. To coordinate the scientific community in the energy sector to produce excellent research
5. To support mobility of researchers and student training programmes
6. To be a "reservoir" of research results/solutions/ knowledge/IP ready to be transferred to industry
7. To provide evidence of EERA's achievements and progress under points 1-6


Expectation	N°	Indicator	Value
4-Coordinate the scientific community in the energy sector to produce excellent research	1	Number of FTEs active in the energy sector employed by EERA members	47.000
	2	Number of EERA members	177
	3	Number of EERA members participating in each JP	From 9 to 48 (depending on the JP- detailed breakdown provided)
	4	Number of scientific peer-reviewed publications containing the 'EERA' label	93
5-Support mobility of researchers and student training programmes	5	Number of EERA JPs providing support for the implementation of structured student training	2/17
	6	Number of person months of mobility activities	258
6- Knowledge transfer to industry	7	Number of exploitable EERA research results available on the EERA webshowcase	12
	8	Number of expressions of interest triggered by the exploitable EERA research results	0

ExCo decision (11/2016): Need to better show EERA added-value – try to reshape those KPIs



Hearings and Reviews

- **JPs hearing**
 - Launch in 2015
 - EC and MS are more than welcome
 - Last hearings:
 - 24th of June 2015 in Amsterdam: Smart-grids and Smart Cities
 - 5th of April 2016 in Brussels: JPNM and AMPEA
 - 28th of June 2016 in Trondheim (SSM): JP Bioenergy and JP CCS
 - 9th of November 2016 in Brussels JP CSP
- **JPs review and evaluation**
 - 13 JPs have already been reviewed once
 - Each JP is reviewed every 3-4 year both on research outcome and alignment of research
 - In 2016: • Shale gas; • E3S; • CCS; • Bioenergy; • JPNM
 - In 2017: • Geothermal; • FCH; • Smart Grids; • Photovoltaics
- **JP characterisation:**
 - process started – some feedbacks still needed



JP characterisation: at a glance

Is	Diagnostic tool for all JPs (self-assessment) - reflecting level of activities & collaboration/integration								
Provides	Visibility of results, better understanding of JPs status, mutual learning, rationale for possible future funding/what needed to move forward								
Deadline	To be completed by end 2016								
Timeline	<table border="0"> <tr> <td>JUN 2016:</td> <td>criteria agreed on occasion of the SSM</td> </tr> <tr> <td>OCT 2016:</td> <td>SEC to define criteria (exact definition) and metrics</td> </tr> <tr> <td>NOV 2016:</td> <td>Test the process on 1 or 2 JP volunteers (Smart grids, CSP, FCH)</td> </tr> <tr> <td>DEC 2016:</td> <td>Launch the process to all 17 JPs</td> </tr> </table>	JUN 2016:	criteria agreed on occasion of the SSM	OCT 2016:	SEC to define criteria (exact definition) and metrics	NOV 2016:	Test the process on 1 or 2 JP volunteers (Smart grids, CSP, FCH)	DEC 2016:	Launch the process to all 17 JPs
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DEC 2016:	Launch the process to all 17 JPs								

EERA European Energy Research Alliance **JP characterisation: methodology**

3 levels SIP activities	CRITERIA	Coordination "Low" 1	Collaboration "Medium" 2	Co-creation "High" 3
A "Sharing resources"	A1		x	
	A2	x		
	A3			x
B "Implementing programmes"	B1		x	
	B2		x	
	B3	x		
C "Delivering results"	C1	x		
	C2		x	
	C3	x		

EERA European Energy Research Alliance **IP Repository & Web Showcase**

What is A platform to promote EERA Intellectual Property (IP) assets:
<http://app.eera-set.eu/ecm>

Purpose Manage, pool, valorize and promote IP assets developed within an IRP/JP

Features

- A web-based repository (back office) & Showcase (front end)
- Used to foster indirect exploitation of IP
- Contains the description of results, their main features, domain of application, IPR status etc;
- Ensures confidentiality of the results

State-of-the-art Active use by IRP STAGE-STE and JP Wind
Use will be extended to all JPs

- Video tutorials are available to get started
- Webinars: 23.3. & 20.4. & 22.6. at 1 o'clock (UTC +01:00)
- detailed info will follow

Interested? Contact Maria Oksa (maria.oksa@vtt.fi) or Rachele Nocera (rachele.Nocera@enea.it)

EERA success stories

WHY

Rationale

- The JPs have a high volume of work/results but they are not always visible externally (& internally)
- Communication of results is one of the key EC expectations towards EERA in the SET-Plan
- Results and value need to be communicated in a direct & simple way
- Show impact as a basis for further support

WHO


Targets:

- Primary: decision makers (EU & national)
- Secondary: other "non-scientific" stakeholders – e.g. industry, civil society, consumer organisations

WHAT

What is a "success"?

- There is not only *one* definition - how a story is presented is key
- Results that could not have been achieved without being part of the EERA community
- A coordinated action of at least 2 organisations in one or more JPs leading to concrete results




EERA success stories – status & next steps


- **So far:** 8 success stories from 7 JPs
 - Promoted at EERA Conference (Birmingham, November 2016), SET-Plan Conference (Dec. 2016), through EERA website, LinkedIN, newsletter
 - Disseminated to JPs for promotion through own-channels
- **Do you have a success story to propose (or any updates on the existing ones)?**
 - Contact your SEC link
 - SEC will support in drafting, finalising & promoting
- This is an **ongoing process**
 - Success stories will be promoted & disseminated at future events, meetings, online channels

WHAT IS **YOUR** SUCCESS STORY?




Part II STRATEGY AND POLICY UPDATES




 **EERA** European Energy Research Alliance

Dialogue with the Commission

- The 2015 Communication on the Integrated SET-Plan has given a new impetus to the role of EERA within the SET-Plan
- Regular meetings with the EC for better mutual understanding:
 - To anchor EERA activities related to the JPs into the Integrated SET Plan
 - To set a limited number of SET Plan objectives with concrete deliverables against which progress can be measured
 - To ensure that EU grant to EERA Aisbl supports the above




Good dialogue, strengthened cooperation

 **EERA** European Energy Research Alliance

Under preparation: meeting with DG RTD


- **Rationale**
 - The EC asked EERA's input on achievements, experiences, lessons learnt (positive and negative), what can be replicated, opportunities for the future
 - Document to include JPs, IRPs, EERA as a whole, experiences with building ECRIAs
- **Expected outcome**
 - Presentation to EC, DG RTD management; discussion
 - Accompanying document
- **Process & timeline**
 - Document submitted to DG RTD



ECRIAs #Call

- Call Energy LCE-33 (European Common Research and Innovation Agendas - ECRIAs)
 - Building on national activities in line with SET-Plan priorities
 - Limited number of research topics (TRL 2-5)
 - Pooling national-EU funding: EU 10M€ (up to 2.5M€/project)

- 11 eligible proposals submitted (April 2016)
 - 104 participants
 - 54% RTOs; 35% universities; 90% EERA members
 - 9 led by EERA, 6 involving EERA aisbl
 - JP **CSP**, Smart Cities, **Storage**, **Bioenergy** (2), Smart Grids, **FC&H**, CCS, Wind

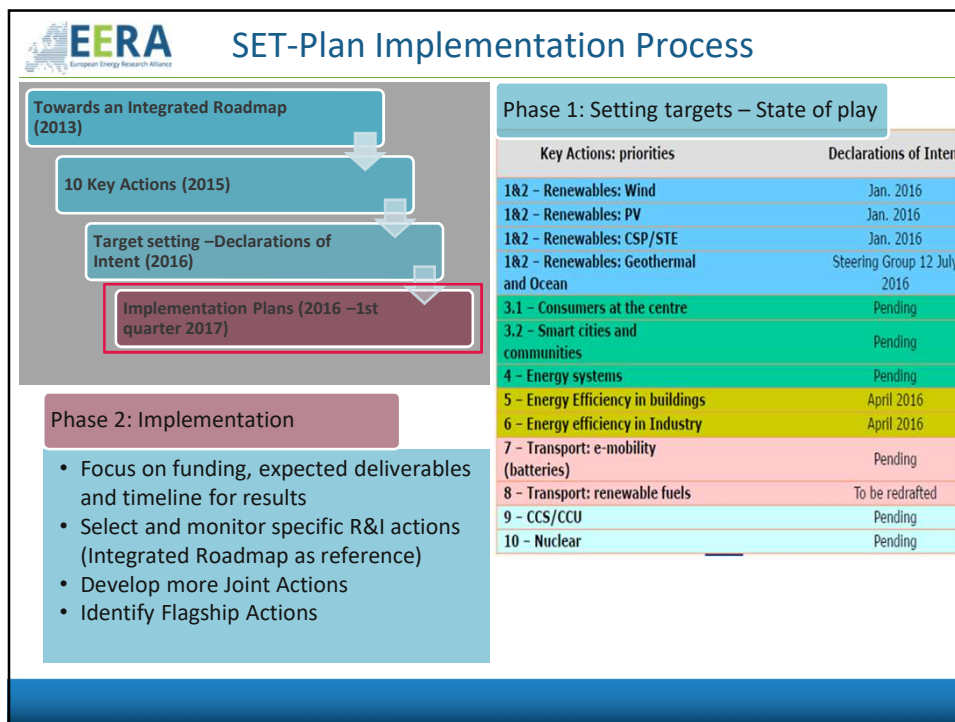


ECRIAs #results

- 4 funded, all EERA driven:
 - JP CSP: **INSHIP**
 - JP Bioenergy: **Ambition**
 - JP Energy Storage: **SmILES**
 - JP FCH: **BALANCE**
- 27,4M€ requested – 10M€ granted
- Overall low scores – 7 below threshold
- Initial feedback from evaluation: positive

STRENGTHS good understanding of concept/objectives (shortcomings rather on implementation);
strong EERA involvement: Good involvement of EERA potential role for dissemination & governance purposes positively assessed


WEAKNESSE long-established partnerships/few outsiders; EU funding just replacing national (vs added value);
lack of strategic dimension/common R&I agenda (strategy, sustainability);
unclear programming schedule of national funding;
difficult to document evidence for national/regional funding



EERA European Energy Research Alliance

SET-Plan Implementation Process

KEY ACTION & ISSUES PAPER	EERA CONTRIBUTION	STATUS	TWG	EERA JPs
Action 1 & 2: N. 1 in renewables				
1+2 PV	JP PV (contribute to EU PVTP input paper)	Declaration of Intent	25/01/2017	JP PV
1+2 Solar thermal electricity	JP CSP	Declaration of Intent	22/11/2016	JP CSP
1+2 Offshore wind	JP Wind	Declaration of Intent	01/11/2016	JP Wind
1+2 Ocean Energy	JP Ocean	Declaration of Intent	April TBC	JP Ocean
1+2 Deep geothermal	JP Geothermal (within ETIP Deep Geothermal)	Declaration of Intent	01/03/2017	JP Geother
Action 3 & 4: Smart EU energy system, with consumer at the centre				
3.1 Smart Solutions for Energy Consumers	JP E3S	Declaration of Intent	01/03/2017	JP E3S
3.2 Smart Cities	JP Smart Cities	Declaration of Intent	27/04/2017	JP Smart Cities
4. Energy System	JP Smart Grids	Declaration of Intent	16/02/2017	JP Smart Grids
Actions 5 and 6: Efficient Energy Systems				
5.1 Energy efficiency in building	#	Declaration of Intent	01/03/2017	
5.2 Renewable heating and Cooling	#	Declaration of Intent		
6. Energy Efficiency in Industry	JP EEIP	Declaration of Intent	29/09/2016	JP EEIP
Actions 7 and 8: energy options for sustainable transport				
7. Batteries for e-mobility	JP Energy Storage + JP FCH	Declaration of Intent	20/03/2017	JP ES
8. Renewable fuels for transport	JP Bioenergy + JP FCH (first round. No participation to the re-launch round)	Declaration of Intent	01/09/2017	
Action 9: demonstrate CCS and develop sustainable solutions for CCU				
9. CCS & CCU	JP CCS + JP AMPEA	Declaration of Intent	22/11/2016	JP CCS
Action 10: high level of safety of nuclear reactors and fuel cycles				
10. Nuclear	JP NM	Declaration of Intent	06/02/2017	JPNM



SET-Plan Implementation Process

Temporary Working Groups

MISSION To develop the Implementation Plans

- Aligned with Declarations of Intent

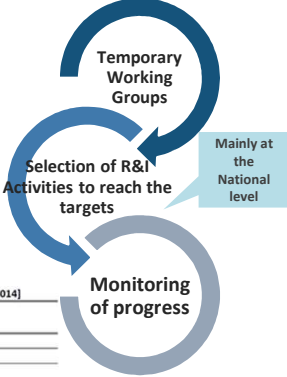
COMPOSITION Chaired by a country + industrial stakeholder


- SET Plan countries
- EC
- Stakeholders (e.g. EERA, ETIPs, contractual public-private partnerships)

HOW TO SELECT COUNTRIES

Top 5 participants from the private and public sectors sorted by total FP7 funds spent on CSP (2010-2014)



Country	Total funds (% of FP7 CSP)	Participant
<i>Private sector</i>		
IT	19.9%	ENEL GREEN POWER (EGP)
IT	8.2%	TECNIMONT KT - KINETICS TECHNOLOGY SPA (TECNIMONT KT)
ES	5.0%	COBRA INSTALACIONES Y SERVICIOS S.A (ACS-COBRA)
ES	3.7%	ABENGOA BIOENERGIA NUEVAS TECNOLOGIAS SA (ABNT)
IT	2.2%	KT - KINETICS TECHNOLOGY SPA (TKT)
CY	0.3%	ARCHI ILEKTRISMOU KYPROU (EAC)
<i>Public sector</i>		
IT	4.9%	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO
DE	3.5%	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV (DLR)
FR	2.6%	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES (CEA)
DE	2.2%	Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e. V. (Fraunhofer)
ES	2.1%	CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT






Part III

EERA GOVERNANCE




EERA at a glance

- EERA now
 - 177 members
 - 27 countries (24 EU MS + Norway, Turkey, Switzerland)
 - 17 Joint Programmes
 - new JP Energy Systems Integration (Kick off meeting 9/10 May 2016)
- EERA Secretariat
 - ENEA, CEA, DTU, Helmholtz, SINTEF, VTT, EERA Aisbl
 - Adel El Gammal (Secretary General, EERA Aisbl)
 - Oriane Levinger (Office manager, EERA Aisbl)
 - Rachele Nocera (ENEA)
 - Sophie Avril (CEA)
 - Elena Guarneri (DTU)
 - Holger Isen (Helmholtz)
 - Petter Stoa and Berta Matas Guell (SINTEF)
 - Maria Oksa (VTT)




Secretariat support

- **WebEx platform:** at your service... just ask for your meetings!
- **EERA Office (130 m²): 72 rue de Namur, 6^o floor, Brussels** → possibility to organize JP meetings
- **Your SEC LINK:**
 - supporting you in giving visibility to your work: in the website, in LinkedIn, circulating information etc... keep them informed!
 - Ensuring connection and information on the general governance of EERA... stay tuned!
 - Facilitating contacts with the EC.... just raise your hand!
 - Providing first hand information on EC instruments...
 - Helping in logistics if you meet in Brussels... just ask!



Simplifying JPs' life: less red tape!

- **Decision making**
 - 2/3 majority – simple majority after two rounds
 - Quorum 50% (previously 2/3)
- **JPCs/JPMB mandate & elections**
 - 4-year mandate (can be extended); open calls
- **Affiliation of new members**
 - Application to JP and approval by JP SC > JPC to inform SEC link and Office manager
 - EERA SEC: check application, present to ExCO, invite to sign "Declaration of Support"
 - New members requested to sign DoS and register on Membership portal
- **Running EERA without PPYS**
 - Organization to choose its membership regarding different right & duties unless other criteria are running in each JP
- **Timeline**
 - Formal ExCo approval (December 2016)
 - **Extraordinary Genral assembly to adopt the new statutes: February 8yh, 2017 (remotly)**




EERA membership

Status chosen by the Member: different set of rights and duties

FULL members	ASSOCIATE members
<ul style="list-style-type: none"> • Rights: <ul style="list-style-type: none"> • Capacity to be ExCo • 1 vote in the General Assembly • Capacity to be elected to JP's MB positions • Benefit of low cost meeting rooms in EERA premises in Brussels • Duties: <ul style="list-style-type: none"> • Membership fee: 3000 €/year • Act as an EERA ambassador in its organisation/Member States 	<ul style="list-style-type: none"> • Rights: <ul style="list-style-type: none"> • Active attendance to GA but no voting right • Duties: <ul style="list-style-type: none"> • Reduced fee: 1000 €/year • Ensure that the information relative to its organisation is up to date on the EERA portal

FULL members:




JP memberships

Status chosen by the Member: different set of rights and duties

FULL members	ASSOCIATE members
<ul style="list-style-type: none"> Rights: <ul style="list-style-type: none"> · Access to be elected to JP's responsible positions · Member of the JPSC · Providing inputs to the DoW Duties: <ul style="list-style-type: none"> · A full participant in at least one JP can only be EERA full member · Shall host JP meetings on a rolling basis · Assure a proper flow on information about EERA to its associate(s) if any · Comply to the payment JP fees (if any) · Actively participate in the daily JPs life (definition/JP) 	<ul style="list-style-type: none"> Rights: <ul style="list-style-type: none"> · Providing inputs to the DoW · Reduced JP fees (if any) Duties: <ul style="list-style-type: none"> · Choose on a full participant to be associated to · Actively participate in the daily JPs life (definition/JP) · Comply to the payment JP fees (if any)

FULL members:




Simplifying JPs' life: JPs' membership fees

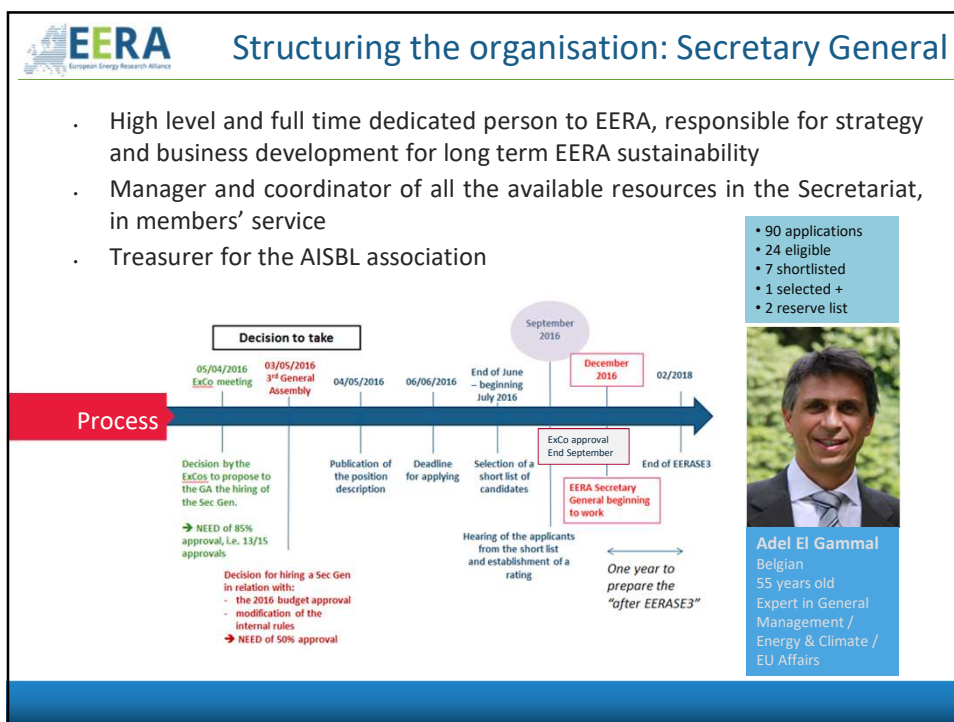
JPs' fee 5 JPs already collect membership fees;
 7 JPs are in process to establish fees;
 5 JPs have no fees

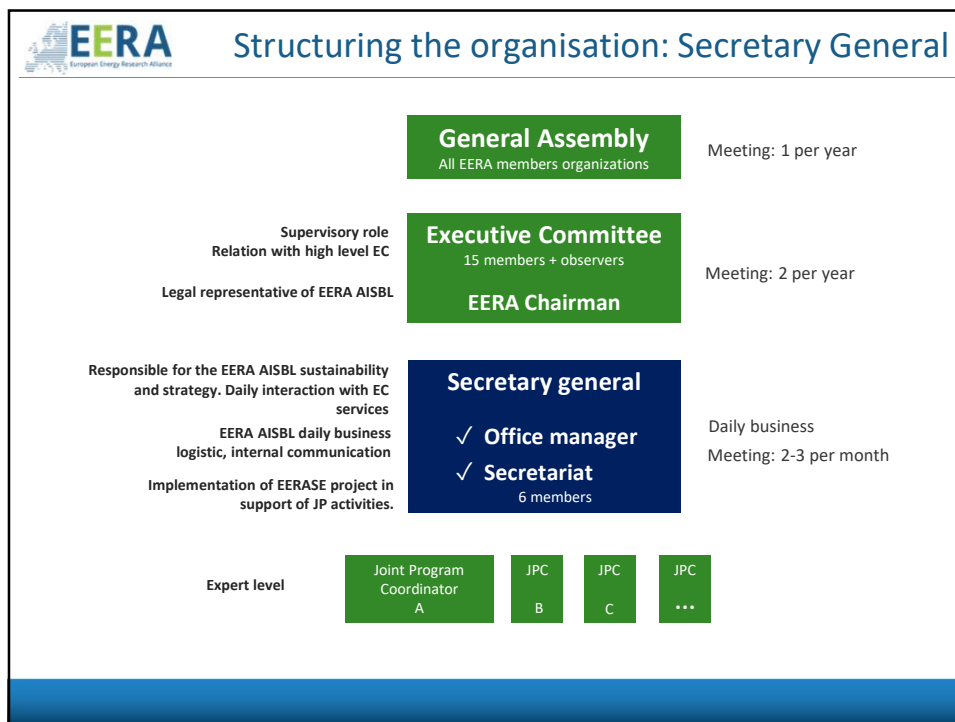
Centralized collection SEC is working on a proposal to support JPs in collecting their fees

Scenarios

1. Ensure to have an agreement on the new EERA statutes and Internal rules of Procedure
2. Proceed to an update of the EERA portal
 - At least solve the issue of the Umbrellas
 - Assess the possibility to avoid different invoices (1 for the EERA central fee, and one per JP, with invoice contact person if needed)
3. Let the new EERA Secretary General propose the final framework for an ExCo approval
 - For this transition year, a short delay in sending the invoices can be expected in 2017 but with a stronger tool and framework both for the JPs and the organizations involved in EERA

 Simplifying JPs' life: JPs' membership fees	
JP's fee draft Scenario	
Light support scenario	
Collection	EERA AISBL sends 1 bill to member organizations on behalf of EERA AISBL and interested JPs
Reminders	<p>Regularly (Every 1-2 months), EERA AISBL</p> <ul style="list-style-type: none"> To make a point of the state-of the art of the fees payment (check EERA account) send reminder to the organization (thanks to the EERA portal tool) and inform each JP contact points (JPC, JP Treasurer, other?) interested. <p><i>Based on the information send by EERA AISBL, JP contact points (JPC, JP Treasurer, other?) has the responsibility to send strong reminder to the researchers involved in their JP whose organization is late in the fee payment (informing the researchers that the invoice is not paid and who in their organization are the contact points in the EERA portal and received the invoice to hurry up the process).</i></p>
Account hosting	<p>EERA AISBL transfers the funds to an account maintained by the JP (e.g. operated by Treasurer's organization)</p> <p>Twice a year (after the EERA GA – end of June- and at the end of the fiscal year)</p> <p>Need to have grant agreements between EERA and the JP</p>
Expenses and account operation	<p>The JPs proceed to any payments/expenses from their account</p> <p>Presentation of the JP budget at the JPSC for approval</p>
Overheads	<p>EERA takes a small percentage of the collected funds (~5%) to support processing costs</p> <p>make an assessment after one year.</p>






EERA European Energy Research Alliance

JP ExCo links renewal (November 2016)

Joint Programme	Joint Programme Coordinator		ExcO Link	
AMPEA	Frédéric Chandezon	CEA	Oliver Kraft	Helmholtz
Bioenergy	Juan Carrasco	CIEMAT	Henrik C. Wegener	DTU
Carbon Capture and Storage	Marie Bysveen	SINTEF	Gianpiero Celata	ENEA
Concentrated Solar Power	Julian Blanco Galvez	PSA	Hervé Bernard	CEA
Economic, Env. and Social Impacts	Daniela Velte	Tecnalia	Brigitte Bach	AIT
Energy Efficiency in Ind. Processes	Peter Rokke Carlo Alberto Campiotti	SINTEF ENEA	Erja Turunen	VTT
Energy Storage	Mathias Noe	KIT	Patrick Hendrick	BERA
Energy Systems Integration	Mark O'Malley	UCD	Teresa Leao	LNEG
Fuel Cells and Hydrogen	Stephen McPhail	ENEA	Nick Eyre	UKERC
Geothermal	Ernst Huenges	GFZ	Nils Rokke	SINTEF
Nuclear Materials	Lorenzo Malerba	SCK-CEN	Vincenzo Romanello	CV REZ
Ocean Energy	Henry Jeffrey	University of Edinburgh	Cayetano Lopez	CIEMAT
Photovoltaic Solar Energy	Ivan Gordon Simon Philipps	IMEC ISE Fraunhofer	Patrick Hendrick	BERA
Shale Gas	Rene Peters	TNO	Tomasz Galka	IEN
Smart Cities	Brigitte Bach Hans-Martin Neumann	AIT	Urs Elber	PSI
Smart Grids	Luciano Martini	RSE	Tomasz Galka	IEN
Wind Energy	Peter Hauge Madsen	DTU	Paul Korting	NERA



Mobility Task Force

The Task Force

Established with ExCO decision on 5th April 2016

Mandate

- Deliver a complete proposal for an operational student and researcher mobility scheme for EERA members active within its Joint Programmes
- Determine and prioritise activities/partnerships to be pursued by EERA and its membership
- Seek cooperation with relevant stakeholders/partners (e.g. EUA, SET Plan, MS, COM and industry) (through ETIP's or other appropriate fora)


Output

- Final report and recommendations for implementation




Part IV

EVENTS









Main upcoming events - 2017

- **Stakeholder meeting on materials for high temperature application in energy technology**, January 31 (Brussels)
- **UNI-SET Clustering event**, 27-29 March (London)
- **EERA General Assembly**, May 3 (Brussels)
- **EERA Annual Reception**, May 3 (Brussels) - (date tbc)
- **EERA Summer Strategy Meeting**, May 30&31 (Vienna)






UNI-SET Clustering events


	 NTNU	 POLITECNICO DI TORINO	 University Politehnica of Bucharest	 Imperial College London	Brussels, host tba	 KU LEUVEN
Host	Norwegian University of Science and Technology	Politecnico di Torino	University Politehnica of Bucharest	Imperial College London	Brussels, host tba	KU Leuven
Main theme (SET-Plan Priority)	• "Human resources and new knowledge to build the future energy system"	• Develop and strengthen energy-efficient systems • Increase safety in the use of nuclear energy	• The future smart EU energy system, with the consumer at the centre	• Energy options for sustainable transport • Carbon capture storage and use deployment	• Renewable Energies and their Integration into the EU Energy System	• UNI-SET Final Event - Linking University Research & Education with the Energy Union and the SET-Plan
Audience	University leadership, industry representatives, researchers, educational leaders, students etc. →					
Date	24-26 February 2016	26-28 September 2016	21-23 November 2016	27-29 March 2017	TBA	TBA, approx. Q2/3 2017

 **First EERA Conference – Final Figures**


- **Participants**
 - Conference: 204 (237 registrations)
 - All JPs were present. JP Ocean and JP Shale Gas had low number of participants
 - Welcoming Reception: 60
- **Presentations**
 - Abstracts: 97
 - Oral presentations: 55
 - Internal speakers: 34
 - External invited speakers: 21
 - Posters: 55
- **Gala Dinner: 200**
- **Sponsorship (10 000 EUR):**
 - Energy Technology Institute (participation Energy Systems parallel session)
 - Energy Systems Catapult (Welcoming Reception)
 - Energy Research Accelerator (Gala Dinner)

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 **EERA Conference – next steps**

- **Debriefing**
 - Feedback from Organizing Committee members and SEC members conducted
 - A second EERA Conference is expected
- **Establishment of an internal Working Group to define The Second EERA Conference: Content, Target audience, Format, Organization, timeline**
 - SEC members, ExCo Representatives (PR), JP representatives
- **Proposal for organizing The Second EERA Conference to be approved by ExCo in the next ExCo meeting (29 March)**



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Thank you for your attention

