



EERA workshop on Smart Grids

Introduction to the workshop

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www.eera-set.eu

About EERA

- Initiative by 10 leading institutes to found a EERA
- Aim: accelerate development of new energy technologies
 - Strengthen, expand and optimise research capabilities
 - Harmonisation of national and EC programmes, decrease fragmentation
 - Draw on results from fundamental research
 - Mature technologies to hand over to industry driven research (industry groupings)
- Participation in EERA in principle open to all research organisations
 - Not just a membership; need to bring in significant R&D capacity
- Based on **own** resources (not: additional budgets EC)
- Between industry driven and fundamental research

What kind of cooperation can be foreseen?

- Harmonisation of research programmes
 - Exchange of information
 - Exchange of personnel
 - Common strategy to tackle (new) research questions
 - Too many topics for a single institute
 - Avoid duplication, ensure complementary of programmes
 - Agree on who does what (and share results)

- Facilities
 - Sharing of facilities
 - Building new facilities
 - Owned by multiple institutes

} Insufficient for EERA

} A breakthrough

Governance Structure:

- Currently: interim structure
 - From Founding Partners towards Executive Committee
 - 10 Founding Partners + 5 additional members
 - 2 members from the new Member States
 - Selection based on relevance
 - i.e. R&D budget in energy research, coverage of multiple research areas, leading position in EU-research etc.
- Next phase: selection based on relevance and contribution to EERA programmes
- Boundary condition: a Member State can only be represented once
- Rights and responsibilities described for:
 - Members of an EERA programme
 - Coordinators of an EERA programme
 - Executive Committee

Executive committee

Founding partners:



**KAPÉ
CRES**



Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile



UKERC



5 additional members:

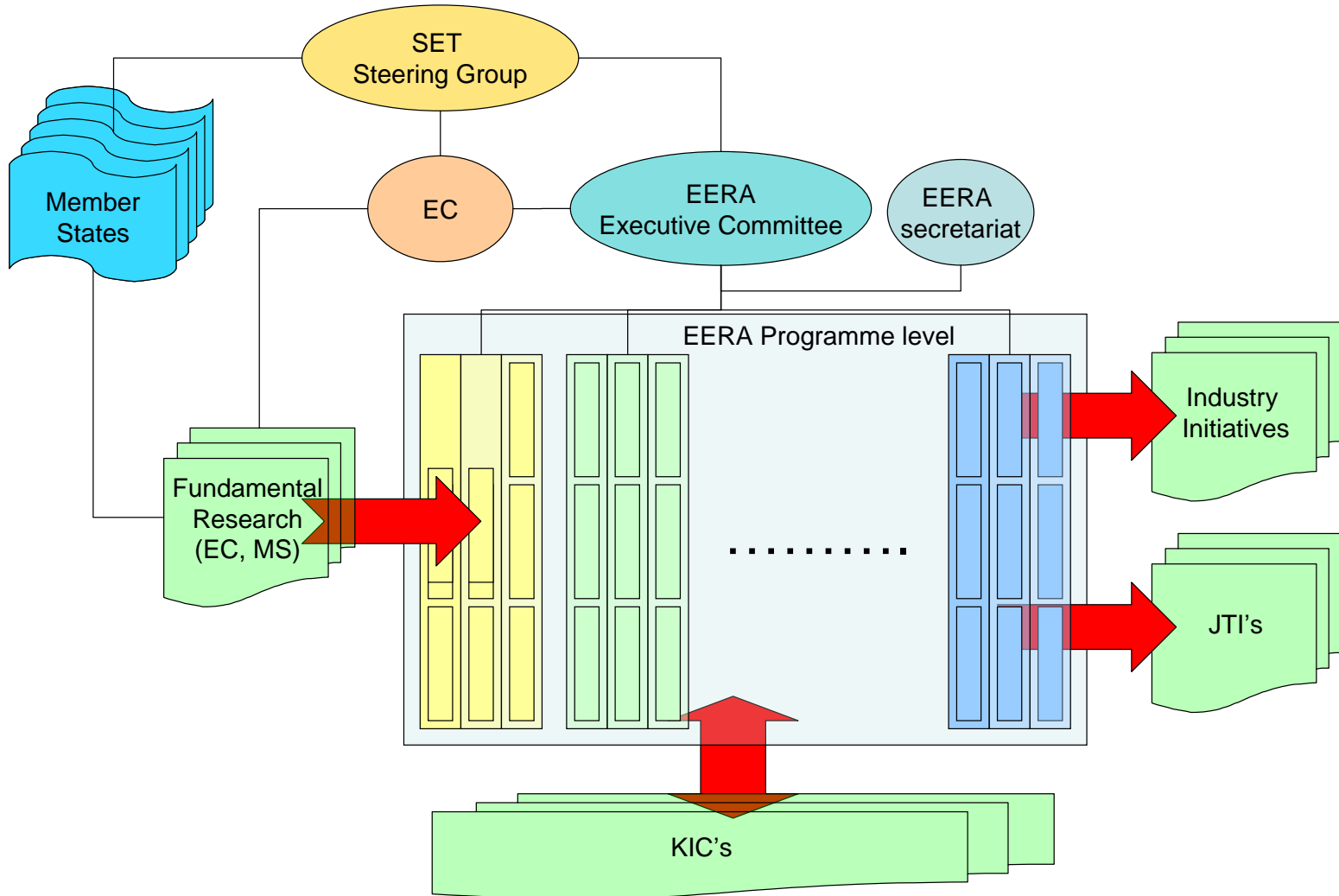


RCR
(waiting for ratification)

With the support of:



Link to other bodies



How to participate to joint programmes

- Participation in EERA programmes in principle open to all research organisations
 - Not just a membership; need to bring in significant R&D capacity
 - Workshops are announced on EERA website (www.eera-set.eu)
 - Participation in workshop based on relevance and commitment
 - Size of programme (staff) and facilities
 - Ability and interest to align resources (availability of “own resources”)
 - First instance: key players to build the core of the programme
 - When programme is up and running: other research institutes can join
- Important: link to industry
 - Questionnaire based on SRA
 - When (draft) is agreed upon, discuss with IEE Solar

EERA: Joint programming

- Identified key areas with joint programming under definition:
 - CCS (Coordinator: IFP - France)
 - Pre-combustion and oxyfuel
 - Storage and potentially post combustion
 - Other aspects...
 - Wind (Coordinator: Risoe -Denmark)
 - Photovoltaic (Coordinator: ECN - Netherland)
 - CSP (Coordinator: CIEMAT - Spain)
 - New materials for nuclear (Coordinator: HGF-FZK - Germany)
 - Smart grids (Coordinator: ERSE/ENEA Italy)
 - Geothermal (Coordinator: CEGL – Italy)
- } Workshops separati

EERA: Joint programming

- Future key areas to be launched:
 - Fuel cells
 - Energy Storage
 - Smart cities
 -

Aim of EERA workshop

- Identify options (interests) for joint programming
 - Agree on value added of EERA
 - Expectation: two to four institutes to start with in a specific area
 - Probably multiple areas can be defined
 - Based on research capacity to be brought in
 - Potential programmes should be **substantial**
 - Man years rather than man months
 - Act as nucleus
 - Agreement on which research institutes will start in depth discussion in a particular area
 - Work out timeline, area, ambition
- NOT: strive for general consensus and cooperation that includes everybody in all activities

Aim of EERA workshop

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6
Institute 1	I		P	P		
Institute 2	C					P
Institute 3		I		C	P	I
Institute 4		C			P	
Institute 5	P		I	P		
Institute 6	I	P	I			P
Institute 7		P		P	C	
Institute 8	P		P		I	
Institute 9				P		P
Institute 10		P	C			
Institute 11	P	P			I	

C = coordinate writing the DoW

P = participant (and contribute)

I = keep me informed

Blank = good luck!

Aim of EERA workshop

What could be foreseen

- Identify a number of areas to start with
 - Relevance
 - Critical mass (interest)
- Preparation of the programme (after the workshop)
 - Write a first draft outline (i.e. two pages)
 - Discuss this by mail
 - Extend the document (i.e. like writing a DoW)
 - Research questions
 - Time line (it takes time to align)
 - Identify short and medium/long term actions (what can we do already tomorrow)
- Final workshop: agree on commitment (resources)
- Official launch



EERA Governance structure in detail

Governance structure

Context: main players

- Founding members and participants on the programme level
 - Interests to be addressed through the Executive Committee
- Funding actors:
 - Ministries, Energy Agencies, European Commission, Industry
 - Interests to be addressed through Advisory Committee
 - Member States give orientation through the SET Plan Steering Group
- Observers:
 - Eurohorcs, EUA, European Commission
 - Attend Executive Committee meeting (no decision power)
- End-users:
 - European technology platforms
 - EII and EIT/KIC
 - Public research stakeholders
 - Executive Committee has to ensure link between Coordinator of a Joint Programme and these end-users (information exchange, harmonisation)

Governance structure

- Rights and responsibilities
 - “Executive Committee”
 - Institutes participating on programme level
 - Coordinator of Joint Programme (JP)
 - Other bodies: general assembly, advisory committee

Definition: a Joint Programme (JP)

- Harmonised activities based on **own** resources
 - Flexibility to align with joint priorities is required
 - Not: EC co-funded projects (objectives are already laid down in existing contracts)
 - In line with SET-plan priorities
 - Areas: wind, pv, CCS, CSP, materials for nuclear, bio fuels, etc.
- Described through a Description of Work (DoW)
 - Objectives, time line, expected results
 - Who puts in how many resources for a specific activity
- Within a Joint Programme, sub-programmes may be defined
- If the programme is up and running, alignment/merging with EC research programmes
 - Add new EC co-funded projects into the Joint Programme (apply to EC tenders)
 - In line with the defined research priorities

Governance structure

Participants on programme level

- Participants can decide where they want to put how many resources
 - But in line with the objectives / milestones of the Joint Programme
 - This is based on voluntary actions
 - They can not be forced to change research priorities
- Contribute to the writing of the Description of Work (DoW)
- Participants can use their involvement in EERA for acquisition purposes
 - National level
 - EC co-funded projects

Governance structure

Participants on programme level (cont'd)

- Participants have the option to have their logo and contact details displayed at EERA website
- Criteria for membership of EERA:
 - Minimum effort > **5** person years / year per Joint Programme **per individual institute or cluster of institutions**
 - **Threshold to be evaluated early 2010**
 - Signing of 'letter of support' to ratify EERA objectives

Governance structure

Coordinator of an EERA Joint Programme

- Coordinator is also “participant”
- **The coordinator is identified by means of a self organising process**
- But is responsible for coordinating the writing Description of Work (DoW) of the Joint Programme (JP)
- Reports on the progress of the Joint Programme to the Executive Committee
 - Monitor the contribution of programme members
- Is responsible for the communication and information exchange with other relevant non-EERA bodies
 - Technology Platforms, European Industry Initiatives (EII), EIT, etc.
 - SETIS
- JPs themselves would apply to the Commission for any specific funding, either for coordination of the activity, or programme funding from the Framework Programme or elsewhere

Governance structure

Executive Committee

- Launches Joint Programmes (JP)
 - Ensure JP respects EERA philosophy, evaluate value added
 - Size (person years),
 - Topic (in line with objectives SET-plan, fit with European Industry Initiatives (EII))
 - Basis: Description of Work (DoW) for the Joint Programme (JP)
- Provides a mechanism for the delivery of EERA activities (including the Secretariat and sub-structure), coordinates work across areas and linking to other initiatives (EIT/KIC, EII, etc.) and international partners (US, Japan etc.)
- Consults the SET-plan Steering Group on the priorities for EERA so that it contributes to meeting the objectives of the SET-plan
- **Will regularly report to the Steering Group of the SET plan and discuss alignment with the SET plan objectives**
- Is responsible for organising the General Assembly

Executive Committee (cont'd)

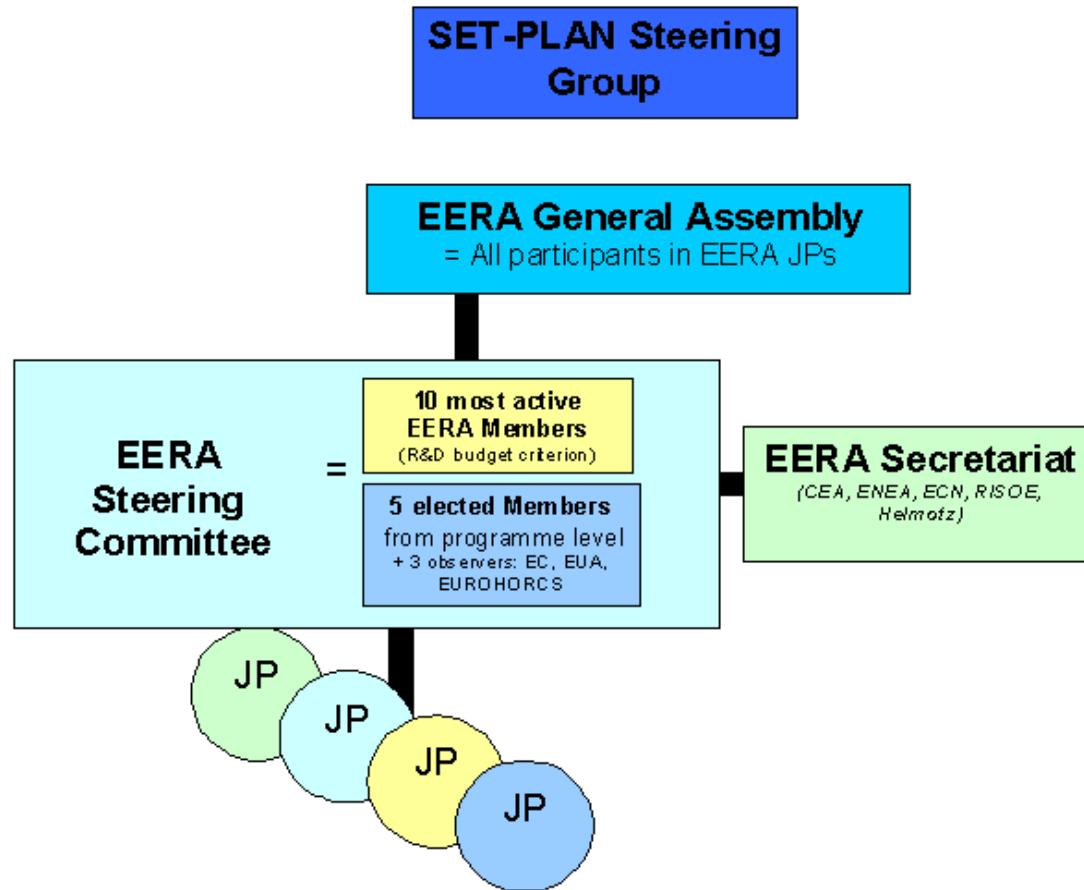
- Monitors the progress of the Joint Programme (JP)
 - Basis: Description of Work (DoW)
 - Verify communication with other relevant bodies / platforms
 - **Can choose to launch a peer review**
- Ensures transparency on programme level
 - Entry in Joint Programme based on commitment and scientific relevance, evaluation on transparent and objective criteria
- Approves membership of EERA
 - Basically: participation in Joint Programme
 - Based on objective and transparent criteria (see also “participant”)
 - Can also terminate membership
- Needs to present EERA to external stakeholders

- **Start** with temporary structure
 - Founding partners + 5 new members
 - At least two from new Member States
 - Founding Partners will select the initial 5 new members
 - The open call will be announced within the Steering Group of the SET plan
 - **Application on individual basis**
 - Applied Selection Criteria:
 1. Total number of staff in energy R&D
 2. Number of participations in EU co-funded projects
 3. Ability to cover multiple areas in energy R&D
 4. Willingness to share in the administrative costs of EERA
 5. Boundary condition: a Member State can only be represented once

Governance structure

- **After 2** years: membership of Executive Committee will be based on selection
 - Some criteria more important than others: assign weights
- Proposed criteria for selection:
 1. Total number of staff in energy R&D – weight **2**
 2. Total number of staff involved in EERA Joint Programmes – weight **2**
 3. Number of thematic areas covered in EERA – weight **1**
 4. Ability to cooperate on international level – weight **1**
 - E.g. Number of participations in EU co-funded projects
 5. Boundary condition: a Member State can only be represented once
 - Details of calculation method to be worked out by secretariat
- Members of the Executive Committee will be re-selected after **3** years / annually based on the criteria listed above
- The members of the Executive Committee will elect the chairman

Governance structure





Joint programs definition within EERA

www.eera-set.eu

Kind and extent of information included

- A two level DoW per Joint Programme:
 - An alive “mother” document outlining the overall coverage through the sub-levels including short summaries of the sub-programmes – **Target: Involved organisation’s CEO for JP participation and commitment approval**
 - A set of Annexes for each of the research activities in the form of detailed Descriptions of Work for each of the research activities - **Target: Research Activities participants for work performance**

Proposed Information format:

- Mother document:
 - General Joint Programme overview
 - For each Research Activity (RA):
 - Background and need for the proposed RA
 - Summary of the proposed RA
 - Estimated needed resources and expected timeline
 - Participating partners and roles
 - Committed resources by participating partners

- Annexes:
 - Research Activity DoW (inspired by EC project structure):
 - Background and need for the proposed RA
 - Scientific objectives and expected results
 - S/T proposed methodology
 - Workplan description including:
 - Workpackage list
 - Deliverables list
 - Milestones
 - Workpackage description
 - Management structure of the proposed RA
 - Participants and roles
 - Effort and resources committed per partner including infrastructures description
 - Detailed description of missing expertises/resources (if needed for partner's search purposes)

JP's proposed implementation model

