

Smart Integration of Energy Storages in Local Multi Energy Systems for maximising the Share of Renewables in Europe's Energy Mix (SmILEs)

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EERA-ECRIA coordination meeting, 13th September Brussels



Content

- Project
- Dissemination & Communication Plan (D1.2)
 - Internal
 - External

SmiLES Project

Basis National projects smart storage in local multi energy systems



Scope

- Increasing the understanding & transparency of innovative multi-energy projects.

- Evaluating comparability of modeling approaches
- Setting up a data platform for sharing data & information
- Setting up a long-lasting framework across EERA JP borders and beyond

Goal Fostering smart storage integration in multi energy system across Europe

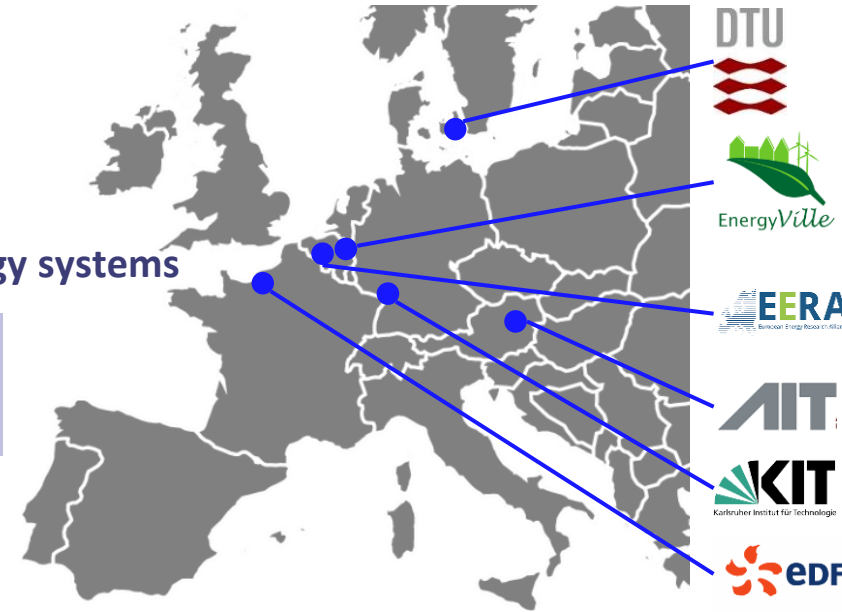
Addressing SET-Plan

Themes:

T7 Energy storage, T8 System flexibility and T9 Smart Cities, T6 Modernising the electricity grid

Key Actions:

A1 "Performant renewable technologies integrated in the system" , A4 "resilience and security of energy system" & 5 "New technologies for buildings"



SmiLES Project - WPs

National funded projects

Rural Village
Köstendorf (AT)



Urban Quarter
Nordhavn (DK)



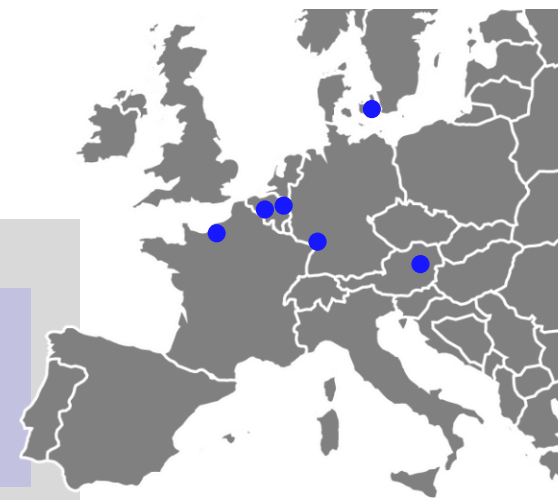
Urban Mix
Aulnoy (FR)



Campus
Karlsruhe (GE)



Flanders
Belgium
VITO energyville



WP 1
Project management

WP 2
Description of
System Configurations

WP 3
Definition of use cases
& generation of data

WP 5
Modelling & Analysis

WP 4
Simulation approach
& evaluation criteria

WP 6
Shared Data and Information Platform

WP 7
Dissemination and Communication

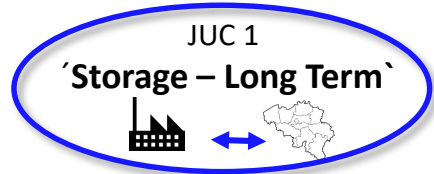
WP 8
Ethics

SmiLES Project research – status

National funded projects



Best practice of smart storage integration

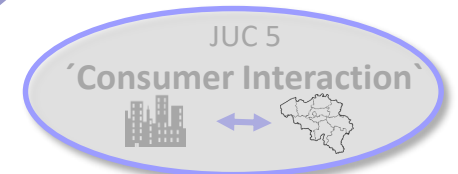


EDF – VITO

Optimal design long-term storage
Different time & geographical scale



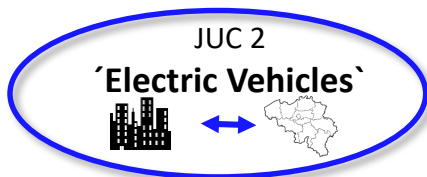
Selection of Joint Use Cases (JUC)



DTU – VITO

Similar system

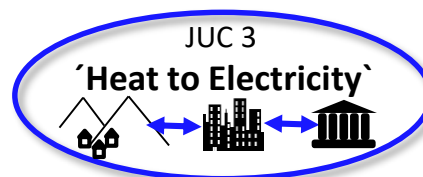
Different time & geographical scale



DTU – VITO

Similar system

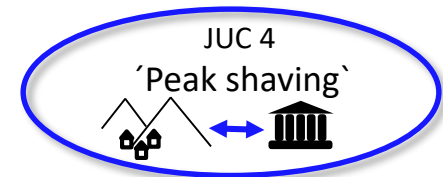
Different time & geographical scale



AIT - DTU – KIT

Control & energy management

Different geographical scale



AIT - KIT

Peak shaving with EES

Different variation of peak shaving,
time & geo scales

1. Internal Audience- Consortium

- transparent & regular communication
- central data repository
- jointly creating documents
- data security
- Regular workshops & TelCos
- Mobility scheme – researcher exchange



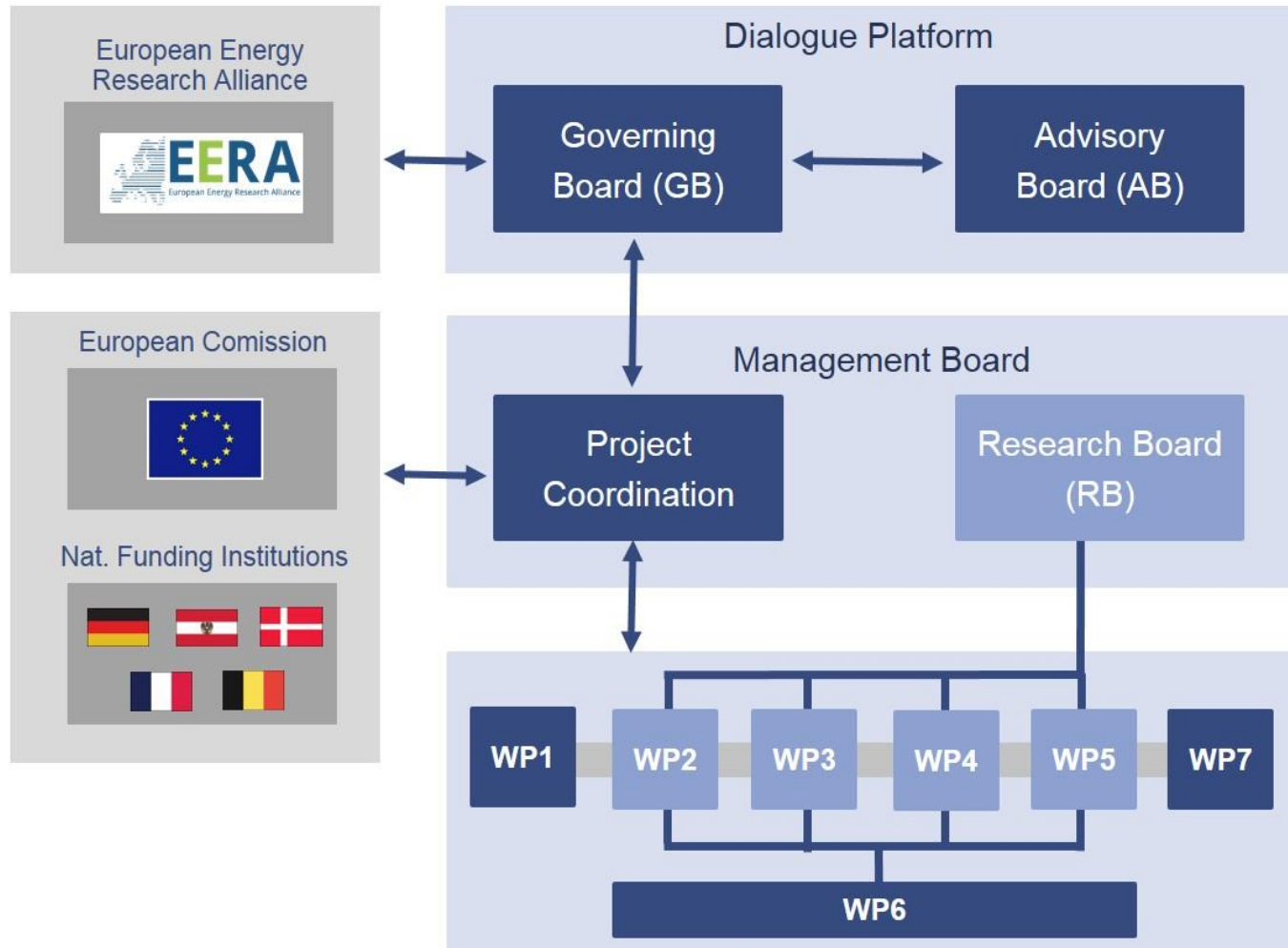
**Member Area
'Confluence'
on KIT internal server**

2. External Audiences

- a. European Commission & Policy makers
- b. Scientific Community
- c. Industry / Power Supplier / stakeholder
- d. Public

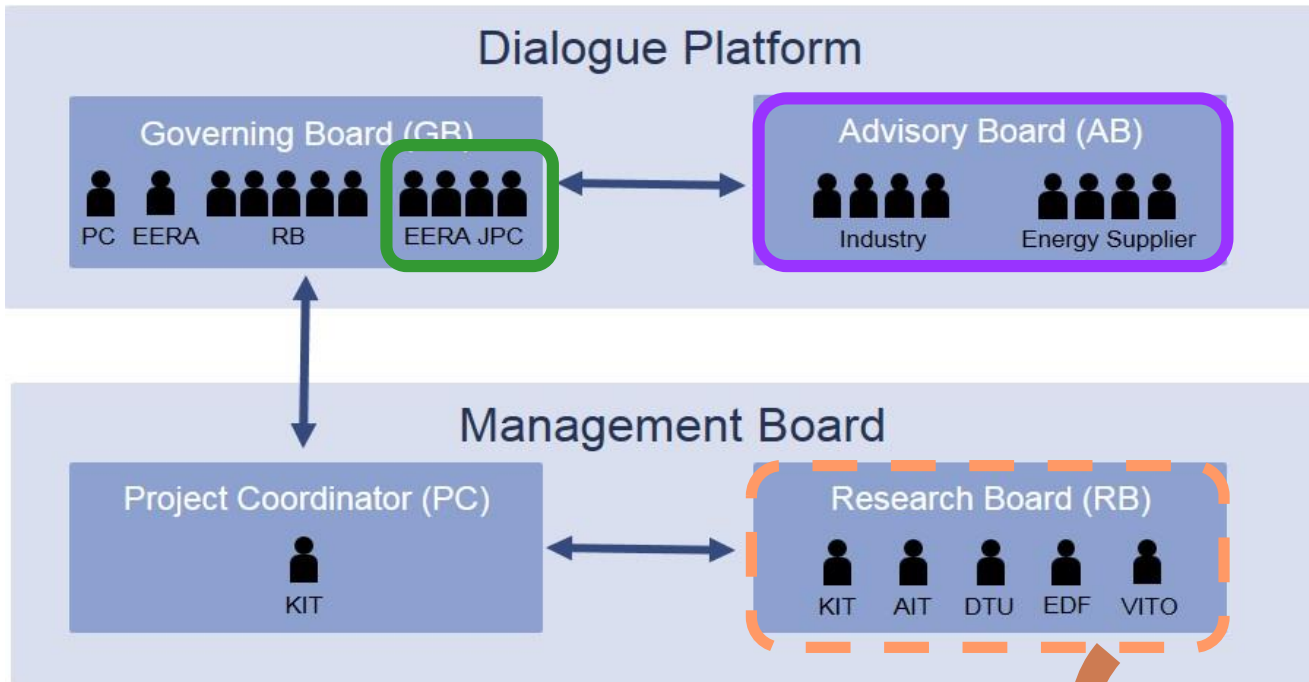
Dissemination & Communication Plan (D1.2)

Management structure



Dissemination & Communication Plan (D1.2)

Interaction with external stakeholders



EERA JPC

- JP ES, Mathias Noe
- JP E3S, Daniela Velte
- JP SC, Brigitte Bach
- JP SG, Luciano Martini

Energy Supplier

- EnBW
- Stadtwerke KA

Industry

- RCT • DHC+ • ...
- A2E • Dalkia

Additional Stakeholders

Existing projects & networks of partners

- INTENSYS4EU
- ERiGrid
- ENSURE
- Csell
-

regularly updated

- Kick off Meeting Stakeholder Meeting Jan 2017
 - Stakeholder Workshop in Nov 17
- **Feedback to results, use cases, establishing a network**

Fostering smart storage integration

Dissemination & Communication Plan (D1.2)

D & C Measures & Tools

Audiences	Data platform	Website	Social Media	Video	MOOC	Mobility scheme	Workshops	Scientific Pub	Non scientific Pub
EXTERNAL									
EC	x	xx	xxx	xx	x		x		
Science	xx	x	xx	x	x		x	xxx	
Stakeholder	x	x	x	x	xxx		x		
Public	xx	x	x	xxx	x				xxx
INTERNAL									
Consortium	xxx	x	x		xx	xxx	xxx	x	
Months	> M12	>M3	> M6	> M11	M30	> M12	>M1	> M12	>M1
Amount		weekly update	monthly update	1	1	4 exchanges	2/year	10/project	5/year



BACKUP



SmiLES Project Description

SmILES: Smart Integration of Energy Storages in Local Multi Energy Systems for maximising the Share of Renewables in Europe's Energy Mix

Coordinator: KIT

Consortium: KIT / AIT / DTU / EDF with EIFER / EERA AISBL / VITO

EERA Joint Programmes involved: JP ES, JP SC, JP SG, JP E3S

Countries involved: Germany, Austria, France, Denmark, Belgium

Total Budget: 2.440.683 €

Start: 12/2016 (3y)

Type of Action: RIA

Key Words: Energy Storage, Storage Integration, Hybrid Energy Systems, Renewables.

Short Description: SmILES 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. Supplementing the research activities, a long-lasting framework across EERA JP borders is set up by the consortium for extending storage integration technologies by linking other EERA members, stakeholders, energy supplier and industry.

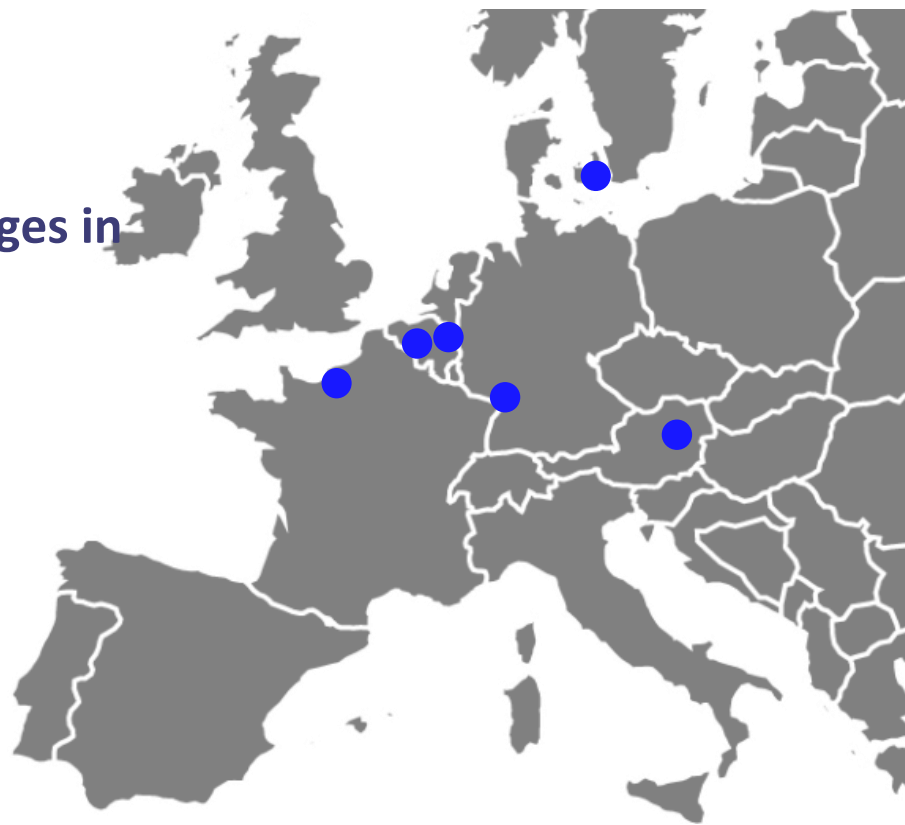
SmILES Project Partners



- AIT (AT)
- DTU (DK)
- EDF (FR)
- EERA (BE)
- KIT (DE)
- VITO (BE)

SmiLES Project

Smart Integration of Energy Storages in
Local Multi Energy Systems

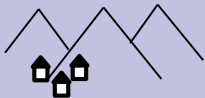


Basis is the Best practice of smart storage integration

simulation and optimisation of smart storage in local energy systems

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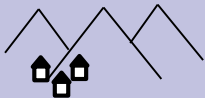
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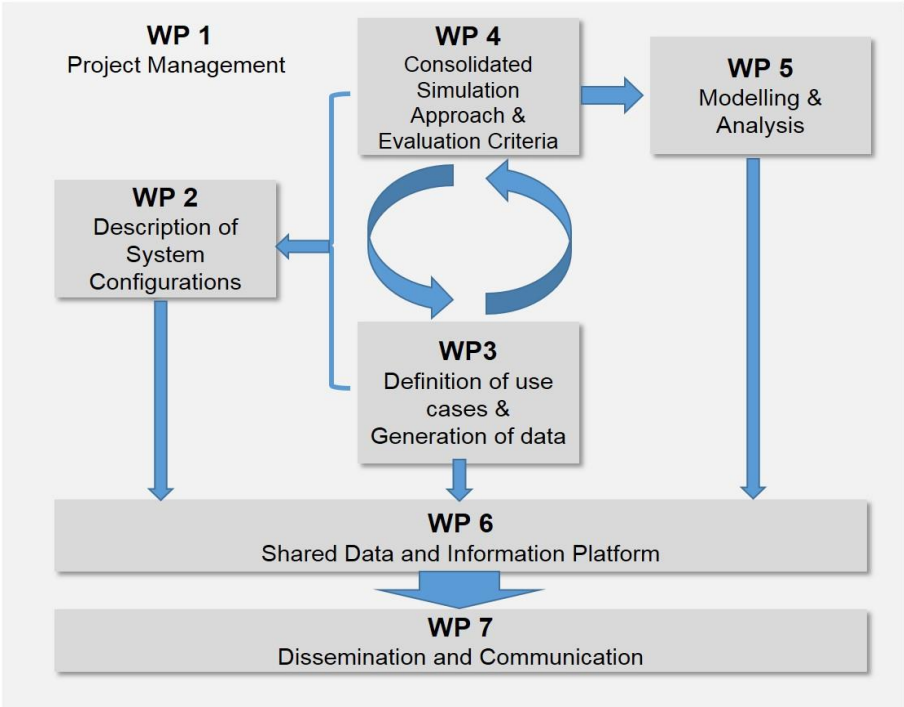
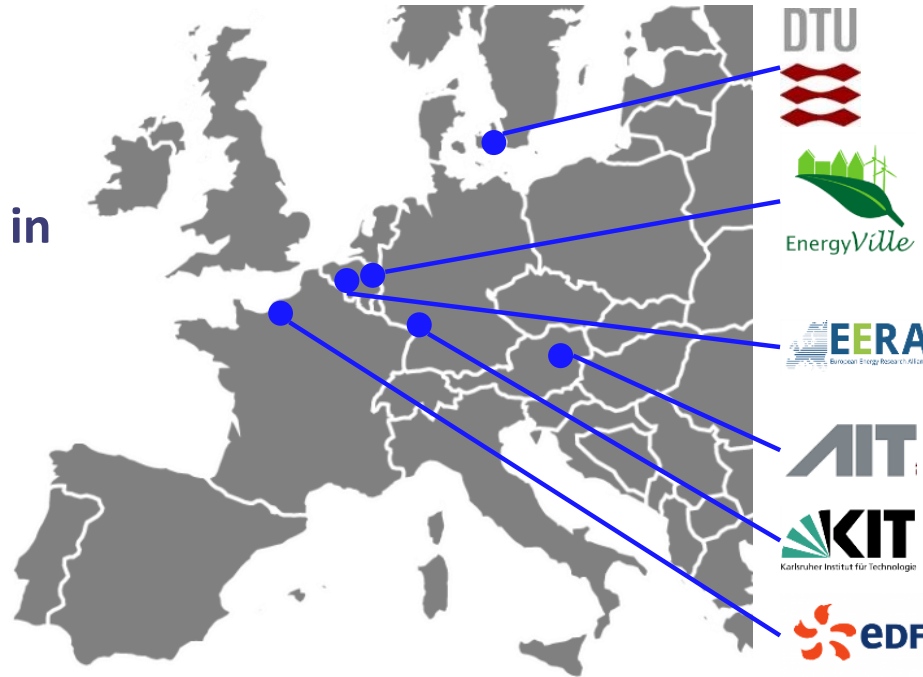
Flanders
Belgium
VITO energyville



National funded projects

SmiLES Project

Simulation & optimization of smart storage in local multi energy systems



...y of innovative multi-energy projects.

form

RA JP borders

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ier and industry.



SmiLES Project - Work Packages

