



Smart
Energy
Systems
ERA-Net

ERA-Net Smart Energy Systems

Webinar on RegSys call

August 23, 2018, 14-15h CEST

Agenda

- About ERA-Net Smart Energy Systems
- 2018 Joint Call on Integrated Regional Energy Systems
- Knowledge Community & Associated Partners
- Networking & Transnational Cooperation Support



About ERA-Net Smart Energy Systems

ERA-Net Smart Energy Systems - Background

A transnational Joint Programming Platform to Initiate Co-Creation and Promote Energy System Innovation



Need for a fundamental transformation of our energy systems towards a sustainable, low carbon and climate friendly economy.

The EU's ambition is to become a leader in renewable energy. Strong, innovative and competitive European companies should provide the technology and services needed to deliver energy efficiency and low carbon energy solutions inside and outside Europe.

ERA-Net SES - The Mission

A transnational Joint Programming Platform to Initiate Co-Creation and Promote Energy System Innovation

- ERA-Net SES is a Research, Development and Innovation (RDI) initiative.
- It initiates and awards transnational Research, Development and Demonstration (RDD) projects.
- In addition, it shares best practise to build a European Knowledge Community (KC).

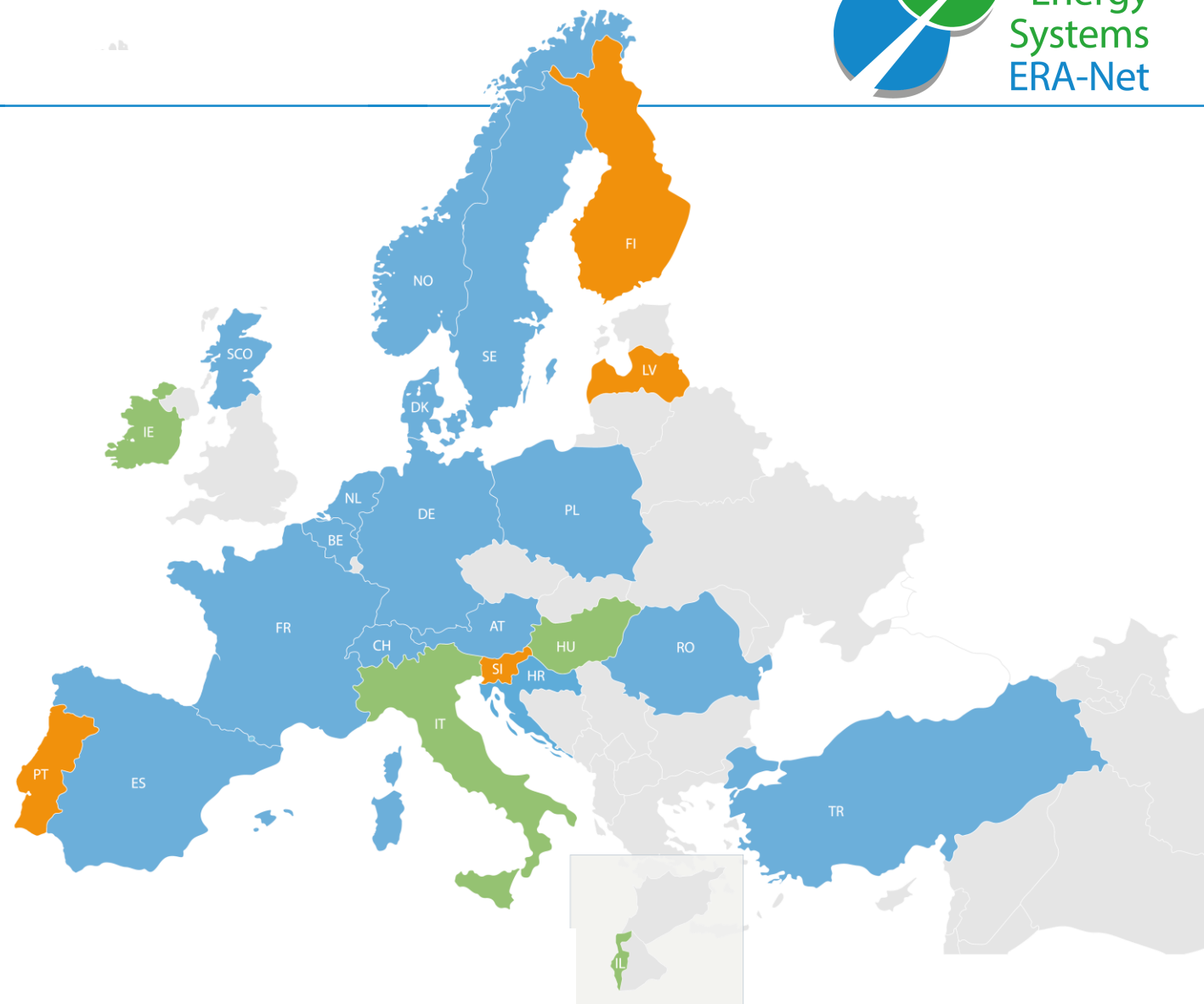


ERA-Net SES Funding Partners

30 funding partners from 23 European countries and regions involved

Austria	Latvia
Belgium (Flanders/Wallonia)	Norway
Croatia	Netherlands
Denmark	Poland
France	Portugal
Finland	Romania
Germany	Scotland
Hungary	Slovenia
Ireland	Spain
Israel	Sweden
Italy (Lombardy)	Switzerland
	Turkey

- both focus initiatives
- focus initiative „Integrated Regional Energy Systems“ (RegSys) only
- focus initiative „Smart Grids Plus“ (SG+) only



ERA-Net SES – The Goal & Status Quo

A transnational Joint Programming Platform to Initiate Co-Creation and Promote Energy System Innovation



- Development of technologies, systems and solutions enabling regional and local energy systems to supply, host and utilize up to 100% renewable energy by 2030, with sustainable use of local and global resources.
- Previous calls:
 - ✓ 33 projects – partners from industry, network and infrastructure providers, research and academia, regions and cities (funds > 60 MEUR).
 - ✓ Success rate : ~40%
 - ✓ Application size: ~30 pages



2018 Joint Call on Integrated Regional Energy Systems

ERA-Net SES 2018 joint call on integrated regional energy systems (RegSys)

- **Deadlines: Project outline - September 11, 2018**
Full project proposal - November 2, 2018
Funding decision - March 8, 2019
- Call budget: ~33 MEUR (including EC top-up funding)
- Transnational collaboration: 19 countries/regions involved
- **Submission through the application portal available through the ERA-Net SES webpage**
- **NB!**
 - Check national/regional funding agencies requirements for additional national/regional applications. These should be submitted directly to the relevant funding agency through their national/regional submission system.



(for details check: www.eranet-smartenergysystems.eu/Calls/Regsys_Calls/RegSYS_Joint_Call_2018)

Fundamental transformation in regional and local energy systems and networks:

- increasing uptake of new and improved technologies for decentralised energy systems
- the boosting digitalisation and associated business models
- major changes of the current societal trends



Supply solutions to identified specific critical needs within a local/regional energy system, where a **“need-owner”** is identified and involved in the solution development.

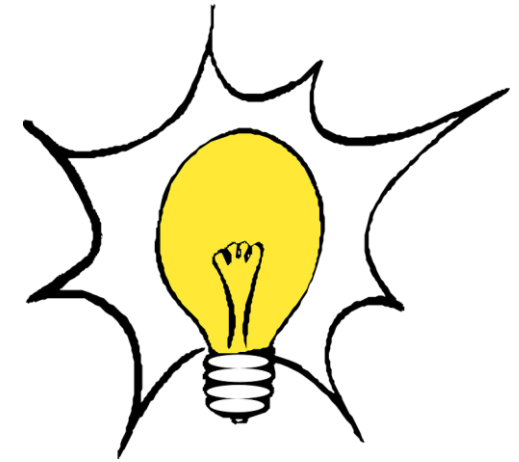
„need-owner”: an entity (e.g. public agency, local/regional authority, energy grid manager/owner, company, building owner etc.) that seek a solution to a specified need (problem) within its area of operation.



Deadline project outline: 11 September 2018

Extent → max 2-3 A4 pages, including:

- scope of the project
- general time-line and goals
- initial project partners
- amount of funding applied for from the individual regional/national funding agencies (including additional/in-kind funding)



Projects start before 15 December 2019, project end by 15 December 2022
(i.e. max duration 36 months, min duration 24 months).

ERA-Net SES – Advisory period

Compulsory advisory period: 18 September – 2 November 2018

- Receive feedback from funding agencies
 - Scope, eligibility, priorities and desirability
- Opportunity to revise the project proposal, partners and obtain necessary information on specific funding agency requirements
- Information on whether any project partner(s) must also submit a full national/regional proposal

Contact details for your national/regional contact points:

www.eranet-smartenergysystems.eu/Calls/Regsys_Calls/RegSYS_Joint_Call_2018

Full proposal deadline: 2 November 2018

RegSys call proposals are asked to elaborate on:

1. Identification of needs and “need-owner(s)”:

- process and methodologies for identifying critical needs
- collaboration with the most significant “need-owner(s)” and other stakeholders

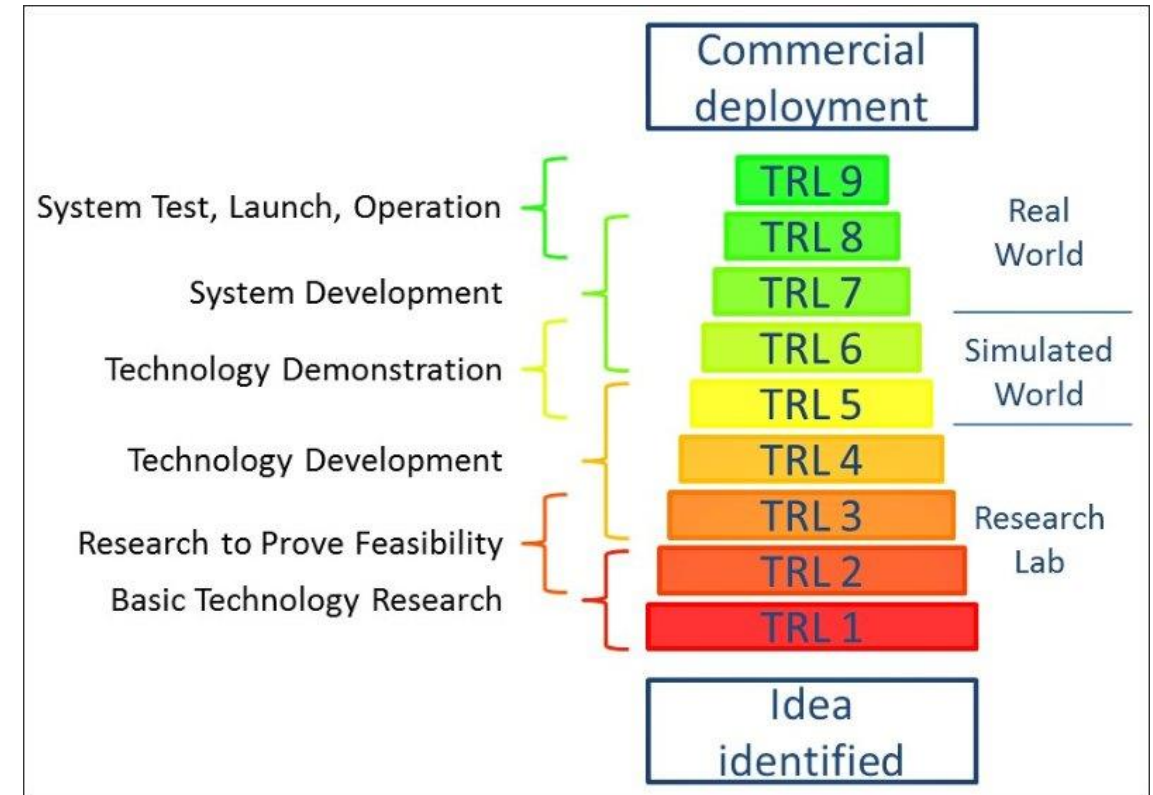
2. Description of R&I activities and co-creation of solutions (main part):

- activities in the fields of research, development and demonstration and/or real environment testing
- chosen processes and methods for collaboration between project partners, “need-owner(s)” and other stakeholders
- how “need-owner(s)” and relevant stakeholders should participate to ensure that the viewpoints, knowledge and expertise of the “need-owner(s)” and relevant stakeholders are involved in all stages. (*solutions’ co-creation process*)



3. Scaling up, replication and dissemination strategy:

- potential for subsequent scaling up, replication and achieving market-readiness (TRL 8-9) for the solutions developed in the course of the project and reaching up to TRL 7.



ERA-Net SES – Project Requirements

Criteria for project proposals (excerpt Ch. 4.1) – the projects should :

- be **transnational** by nature, involving at least two independent participants from two different countries (whereof at least 1 EU member state), participating in the joint call.
- implement the **Three-Layer Research Model** encompassing Stakeholder/Adoption, Goods and services and Technology (see Annex A)
- address the **Three Dimensions of Integration** – Smart Energy Systems, Local and Regional Development and Cross Sectoral Integration (see Annex B)

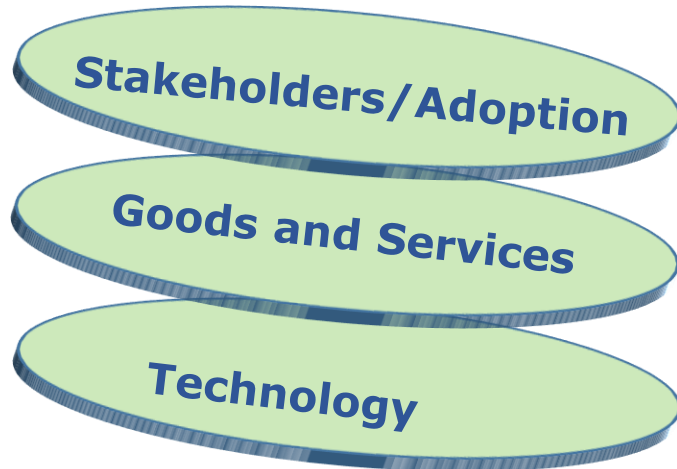


ERA-Net SES – Project Requirements

- address **critical needs** within a specific regional/local energy system and involve regional/local “need-owner(s)” to ensure market viable solutions. Aspects of **replicability and transferability of solutions** should be considered.
- address diversity and inclusivity perspectives related to gender, ethnicity, age, socio-economic status, physical abilities, political beliefs, geography etc. throughout the project.

National/regional eligibility criteria must be respected in addition to the ERA-Net SES RegSys project requirements (see Annex C). It is mandatory that they contact their respective national/regional contact points.





Stakeholders / Adoption – *overcoming: why do or don't we do it?*

(innovation and transition processes with stakeholders, consumer acceptance, education, policy, retail, community and society, social research, etc.)

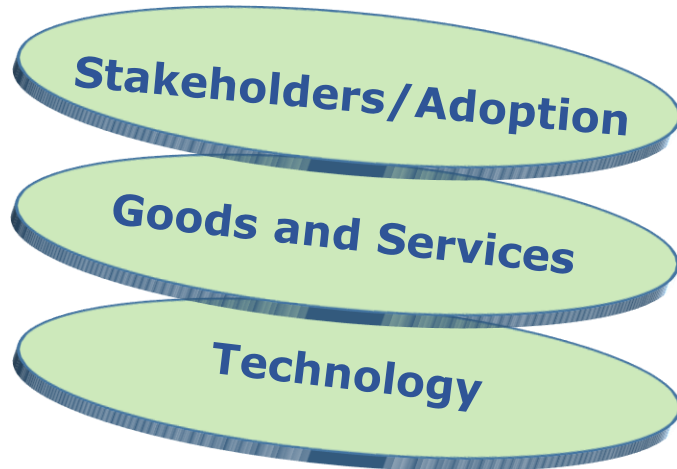
Goods and Services – *structuring: how do we organize it?*

(business models, regulatory framework, market design with new goods and services, economic research etc.)

Technology – *enabling: which technology do we need?*

(incl.: how can we make technologies from other sector available for the energy system? -telecommunications, machine learning, cross energy carrier solutions, grid automation, technological research etc.)

ERA-Net SES – Three Layer Model

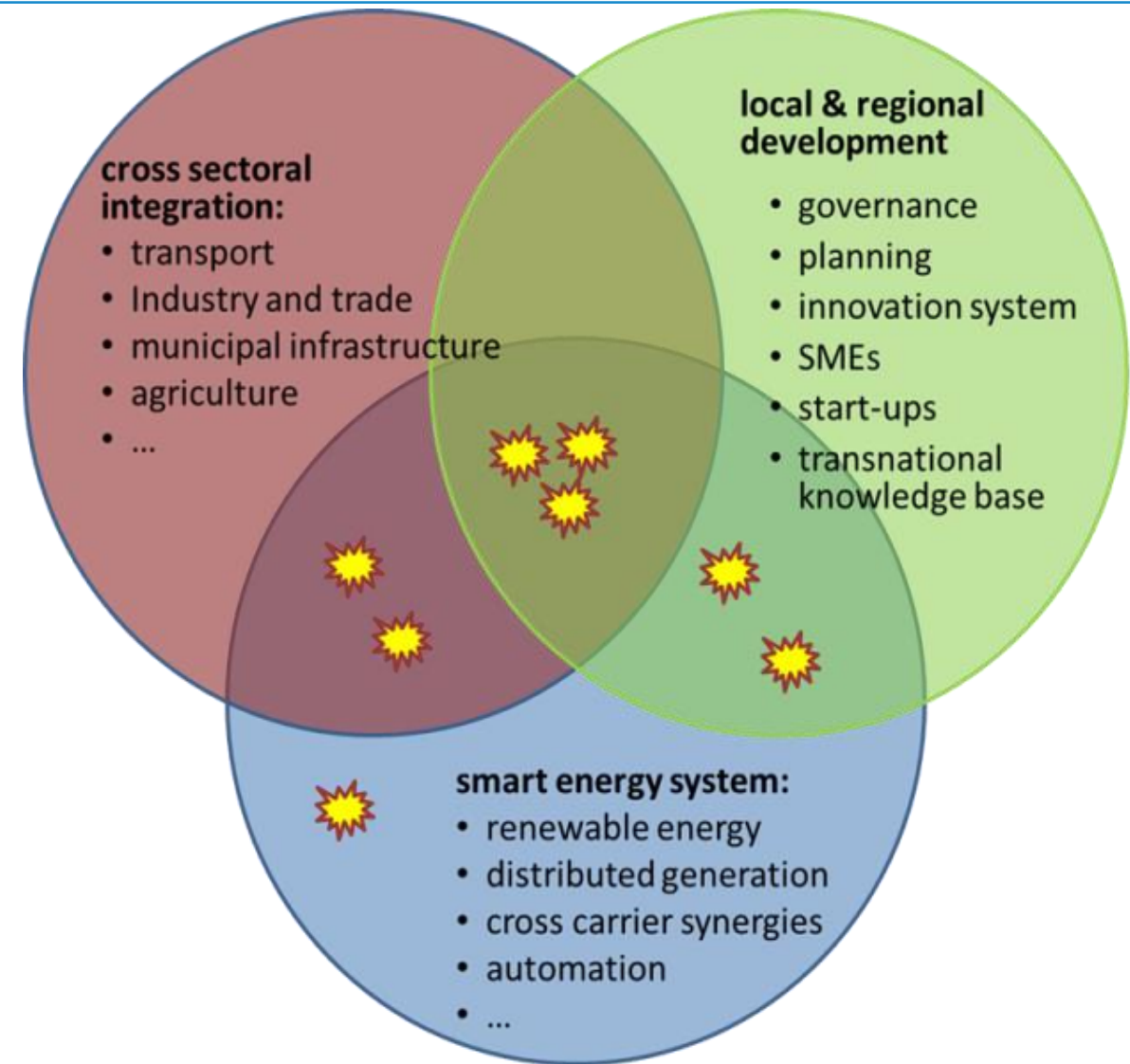


- Prefer projects that cover more than one of these three research layers (ideally all three).
- Projects covering stakeholder/adoption and/or goods and services layers as well, will be given priority over single layer projects.
- Projects should therefore clearly state goals for the stakeholder/adoption and goods and services layers in relation to technological issues.

ERA-Net SES – Three Dimensions of Integration

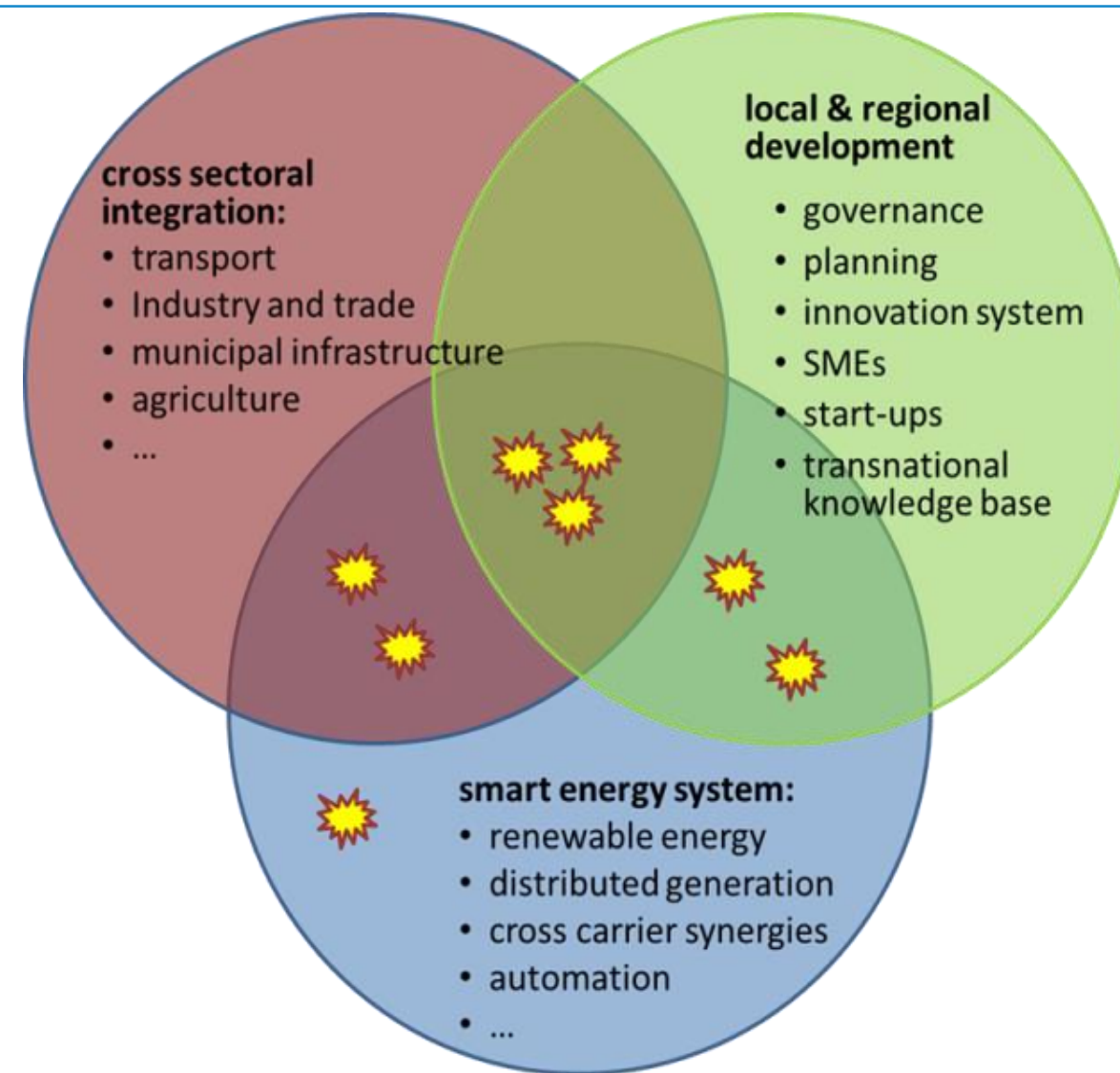
“Seeing the whole picture”

- **Smart energy systems** → integration of infrastructure and services with energy systems
- **Local & regional development** → connecting the RDD projects with local and regional need-owners and service suppliers and the joint development of new solutions
- **Cross sectoral integration** → connecting smart energy activities with local and regional economic sectors in a fully integrated energy system



ERA-Net SES – Three Dimensions of Integration

- Projects have to cover at least the “Smart Energy System Integration” dimension
- ERA-Net SES will prefer projects that cover more than one of these three dimensions of integration (ideally all three)
- Projects covering additional dimensions of integration will be given priority



The evaluation and eligibility process comprises three steps:

1. National/regional eligibility check

The projects will be considered on a national/regional basis, governed by national/regional funding agency regulations.

2. Transnational evaluation of the project proposals

In the evaluation phase a panel of at least three independent experts will evaluate each project proposal. The independent expert panel will evaluate the proposals based on three main criteria:

- a) Excellence
- b) Impact
- c) Quality and efficiency of the implementation

More detailed explanation of each criterion in Annex F.

No preference is given to projects with partners from numerous different countries/regions.

3. **ERA-Net SES selection and outcome**

The final step of the evaluation process is a joint meeting of the ERA-Net SES consortium to select projects for funding according to the ranked list from the independent experts. The outcome will be reported to the applicants by the 8 March 2019.



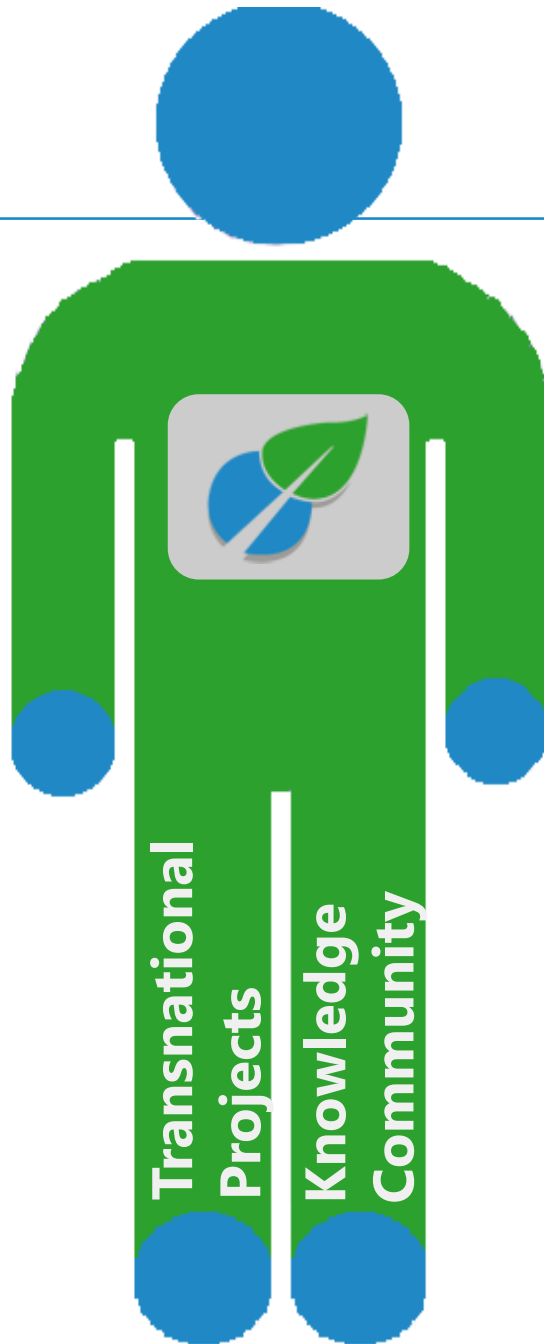


Knowledge Community and Associated Partners

ERA-Net SES universe – the holistic approach



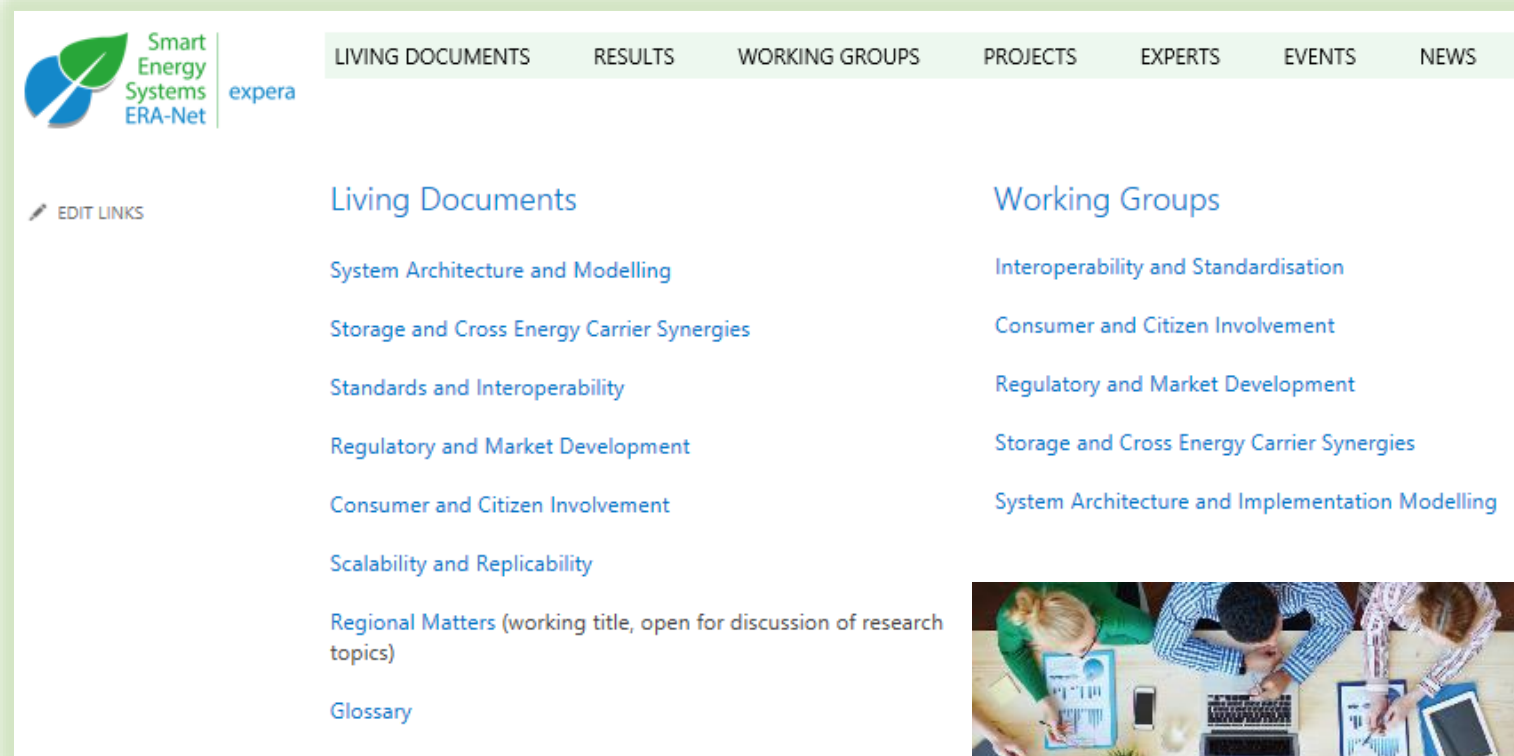
Walking on two legs



- Transnational Projects
 - national funding with EU top-up funds
 - selected in ERA-Net SES Calls
 - communication and evaluation by Support Team
- Knowledge Community
 - from and for the ERA-Net SES projects
 - national and international experts
 - unique networking and knowledge base

Members

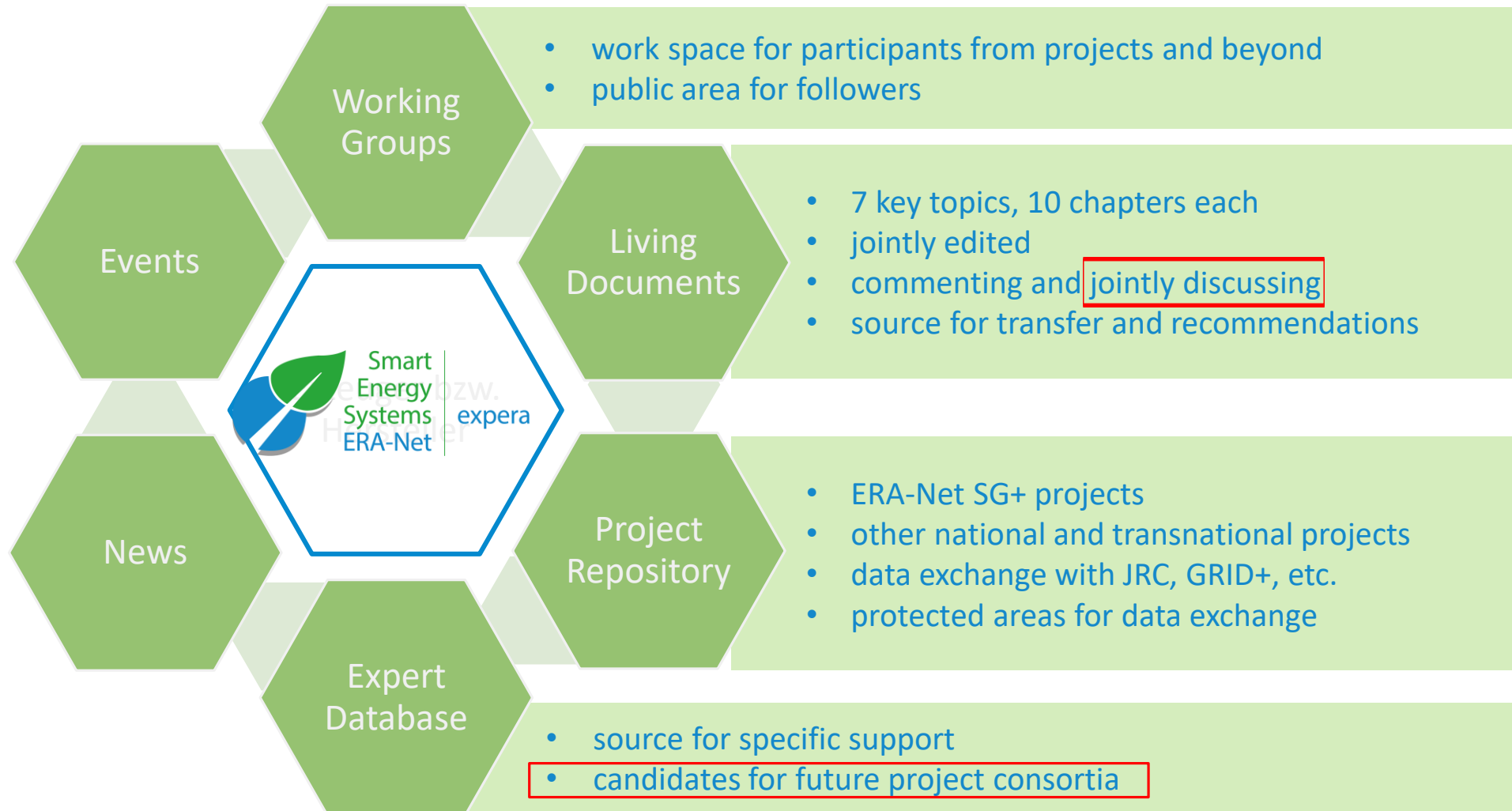
- ERA-Net SES projects
- (Trans-)National key projects
- International RDD projects
- Smart Grids practitioners
- Agenda setters and policy makers




www.smartgridsplus.eu



„one-stop shopping”: the Knowledge Sharing Platform



expira – expert search function



[LIVING DOCUMENTS](#)
[RESULTS](#)
[WORKING GROUPS](#)
[PROJECTS](#)
[EXPERTS](#)
[EVENTS](#)
[NEWS](#)
[EXCHANGE](#)

Living Documents

- System Architecture and Modelling
- Storage and Cross Energy Carrier Synergies
- Standards and Interoperability
- Regulatory and Market Development
- Consumer and Citizen Involvement
- Scalability and Replicability
- Regional Matters (working title, open for discussion on research topics)
- Glossary

News

- Launch of Regional Energy Systems Call and Working Group Meetings at the Nordic Clean Energy Week
- ERA-Net Smart Grids Plus at the European Utility Week 2017 in Amsterdam
- ERA-Net Smart Grids Plus in Bucharest, Romania
- The ERA-Net SG+ family of projects met at the kick-off event and the Working Group meeting in Split
- 2nd ERA-Net SG+ Joint Call & expira successfully launched in Stockholm

1 - 5

Working Groups

- Interoperability and Standardisation
- Consumer and Citizen Involvement
- Regulatory and Market Development

The Knowledge Community Platform

Expira, the cooperation platform of the ERA-NET Smart Energy Systems, allows for intensive communication between and cooperation of registered members of the Knowledge Community. With its Living Documents, Spotlights and access to Working Groups it is a unique opportunity for experts to exchange their knowhow, opinions and

Experts

red "expira experts" have indicated to actively participate in the Era-Net Smart Energy Systems Knowledge Community. They will contribute to the community by sharing their knowledge for the Living Documents and working capacity they can help ERA-Net SES projects and other actors in the field of Smart Energy Systems to improve their performance. Please note, that only registered experts can visit the profile of other experts.

[alternative view \(opens for full expert members only\)](#)


mid Aghaie

AIT Austrian Institute of Technology

Expert search

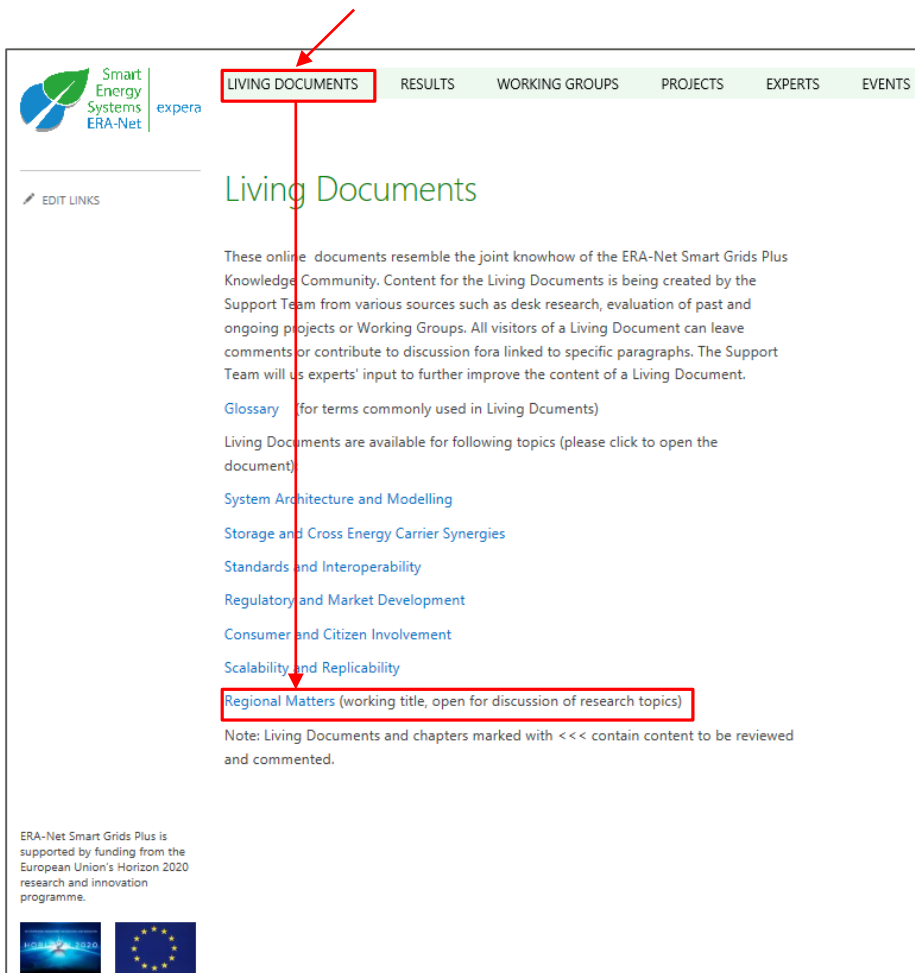
Preference for results in German ▾

- Karg
such as Smart Energy solutions, sustainable **regional** development, the role of ICT and ... related topics on international
<expira.smartgridsplus.eu/Lists/Experts/DispForm.aspx?ID=4>
- Papagiannis
He participated as coordinator or key researcher in 29 **regional** and European projects ... efficiency in the industry up to
<expira.smartgridsplus.eu/Lists/Experts/DispForm.aspx?ID=163>
- Weigert
Data analytics, Smart Metering, Consumption Behaviour ... Machine Learning, Data Science, **regional** eco-tariffs ...
<expira.smartgridsplus.eu/Lists/Experts/DispForm.aspx?ID=477>
- Rechter



Manuals of expira

expera – living documents on regional matters



Smart Energy Systems ERA-Net expera

LIVING DOCUMENTS RESULTS WORKING GROUPS PROJECTS EXPERTS EVENTS

Living Documents

These online documents resemble the joint knowhow of the ERA-Net Smart Grids Plus Knowledge Community. Content for the Living Documents is being created by the Support Team from various sources such as desk research, evaluation of past and ongoing projects or Working Groups. All visitors of a Living Document can leave comments or contribute to discussion fora linked to specific paragraphs. The Support Team will use experts' input to further improve the content of a Living Document.

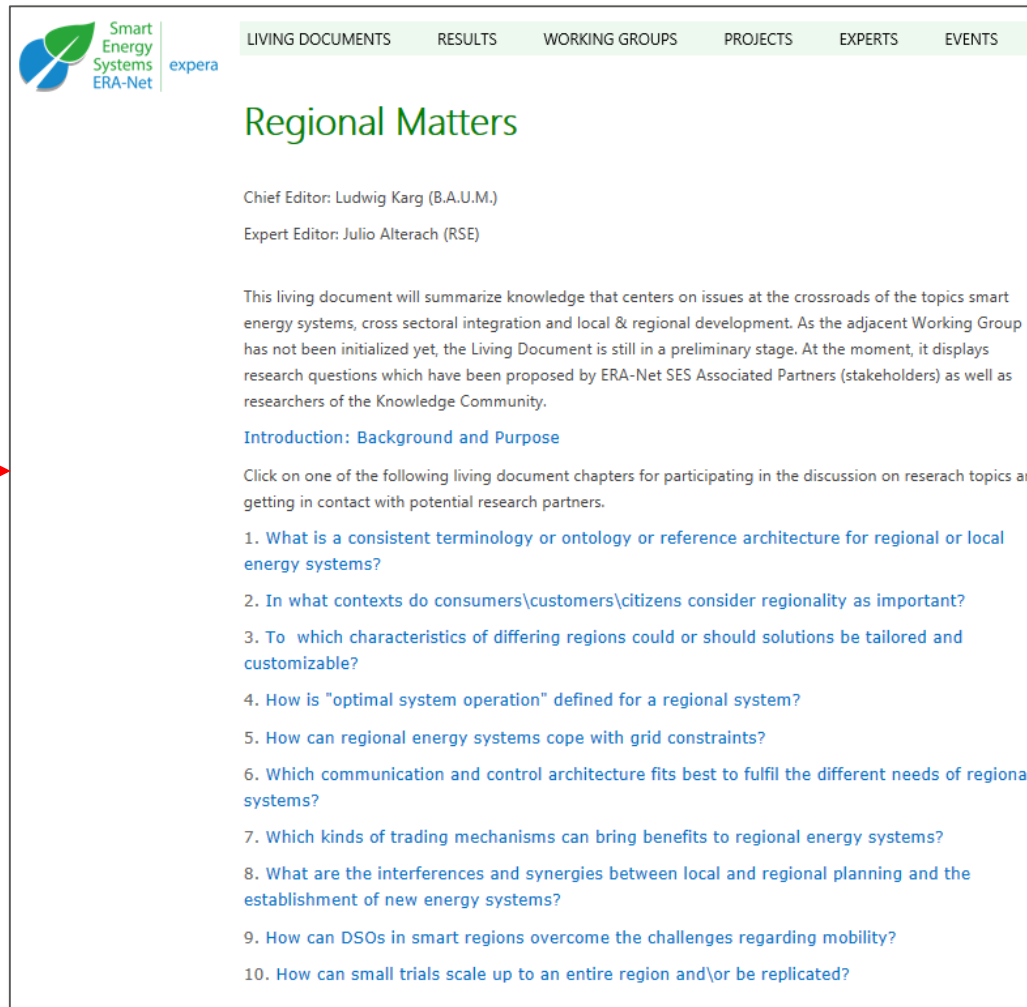

[Glossary](#) (for terms commonly used in Living Documents)

Living Documents are available for following topics (please click to open the document):

- [System Architecture and Modelling](#)
- [Storage and Cross Energy Carrier Synergies](#)
- [Standards and Interoperability](#)
- [Regulatory and Market Development](#)
- [Consumer and Citizen Involvement](#)
- [Scalability and Replicability](#)
- [Regional Matters \(working title, open for discussion of research topics\)](#)**

Note: Living Documents and chapters marked with <<< contain content to be reviewed and commented.

ERA-Net Smart Grids Plus is supported by funding from the European Union's Horizon 2020 research and innovation programme.



Smart Energy Systems ERA-Net expera

LIVING DOCUMENTS RESULTS WORKING GROUPS PROJECTS EXPERTS EVENTS

Regional Matters

Chief Editor: Ludwig Karg (B.A.U.M.)
Expert Editor: Julio Alterach (RSE)

This living document will summarize knowledge that centers on issues at the crossroads of the topics smart energy systems, cross sectoral integration and local & regional development. As the adjacent Working Group has not been initialized yet, the Living Document is still in a preliminary stage. At the moment, it displays research questions which have been proposed by ERA-Net SES Associated Partners (stakeholders) as well as researchers of the Knowledge Community.

Introduction: Background and Purpose

Click on one of the following living document chapters for participating in the discussion on research topics and getting in contact with potential research partners.

1. What is a consistent terminology or ontology or reference architecture for regional or local energy systems?
2. In what contexts do consumers\customers\citizens consider regionality as important?
3. To which characteristics of differing regions could or should solutions be tailored and customizable?
4. How is "optimal system operation" defined for a regional system?
5. How can regional energy systems cope with grid constraints?
6. Which communication and control architecture fits best to fulfil the different needs of regional systems?
7. Which kinds of trading mechanisms can bring benefits to regional energy systems?
8. What are the interferences and synergies between local and regional planning and the establishment of new energy systems?
9. How can DSOs in smart regions overcome the challenges regarding mobility?
10. How can small trials scale up to an entire region and/or be replicated?

expera – living documents on regional matters

Living Document Regional Matters - Question 1

What is a consistent terminology or ontology or reference architecture for regional or local energy systems?

In the following discussion forum, you can contribute to already expressed research needs or add your own ideas by clicking on (+) new discussion (see button below).

You may display your interest to build a consortium and apply for a funded project on the respective question(s).

Discussion of Research Needs

[+ new discussion](#)

Recent My discussions Unanswered questions ...

[How are the control and communication terms defined for a regional energy system from the perspective of different disciplines?](#)
(research need identified by WG Leader) Please reply if you are interested or can contribute to this question. Please display your interest and expertise if you want to support or execute research on this topic.
By ERA-Net SES Knowledge Community | Latest reply by ERA-Net SES Knowledge Community | 8 August

[Definition of "regional energy supply" \(certificates?\)](#)
(research need identified by WG Leader) Please reply if you are interested or can contribute to this question. Please display your interest and expertise if you want to support or execute research on this topic.
By ERA-Net SES Knowledge Community | 7 August

[Glossary on terms in regional and city planning as well as future energy systems](#)
(research need identified by WG Leader) Please reply if you are interested or can contribute to this question. Please display your interest and expertise if you want to support or execute research on this topic.
By ERA-Net SES Knowledge Community | 7 August

How are the control and communication terms defined for a regional energy system from the perspective of different disciplines?

0 replies



ERA-Net SES Knowledge Community
(research need identified by WG Leader)

Please reply if you are interested or can contribute to this question. Please display your interest and expertise if you want to support or execute research on this topic.

7 August Reply Edit ...

Add a reply

Reply

Add a reply

Reply

Associated Partners

Joining forces with many kinds of non-funded partners to ...

- jointly foster development of technology and business solutions
- make sure that projects meet real needs of energy efficiency and energy transition processes
- link local and regional level to overall energy system
- connect to business domains way beyond the energy sector
- give RDD consortia confidence that their results will be adopted.

Involvement of stakeholders as Associated Partners does not only improve the quality of the funded RDD projects but increase their overall impact.

Roles of Associated Partners

- provide reach-out beyond involved funding agencies to get good projects and consortia and multiply results
- participate in co-creation of
 - concepts for projects (e. g. in order to get beyond traditional and R&D only approaches)
 - solutions during the run-time of a project (e. g. linking consortia to specific supporters)
 - networks and favorable mindsets for the success of the program and its projects
- shape projects to meet the partners needs at their best
- help start-ups and other candidates with limited experience to apply
- act as technical enablers (e. g. by providing software modules)
- co-finance ERA-Net SES projects
- support accompanying product development
- help taking solutions developed in ERA-Net SES projects to practice
- provide aggregated input to ERA-Net SES program and projects

marked in blue: key aspects for May 2018 call

List of Associated Partner Candidates (June 13, 2018)

Berlin Partner für Wirtschaft und Technologie	Germany
Business Support Centre Kranj	Croatia
Catapult Energy Systems	Scotland
CAP Construction	Belgium
DURA – City of Dubrovnik Development Agency	Croatia
Edinburgh Centre for Carbon Innovation (ECCI), University of Edinburgh	Scotland
Eurosolar – The European Association for Renewable Energy	Europe
FIWARE Foundation	Europe
ICLEI European Secretariat	Europe
INiTS Universitäres Gründerservice Wien	Austria
KIC InnoEnergy Sweden	Sweden
Ravonja agencija Zagreb (Development agency Zagreb)	Croatia
Regional Energy Agency Kvarner	Croatia
Regionale Energie	Austria
Smart Innovation Norway	Norway
Wirtschaftsagentur Wien	Austria

... and many more!

Find all committed
Associated Partners
[at our website!](#)

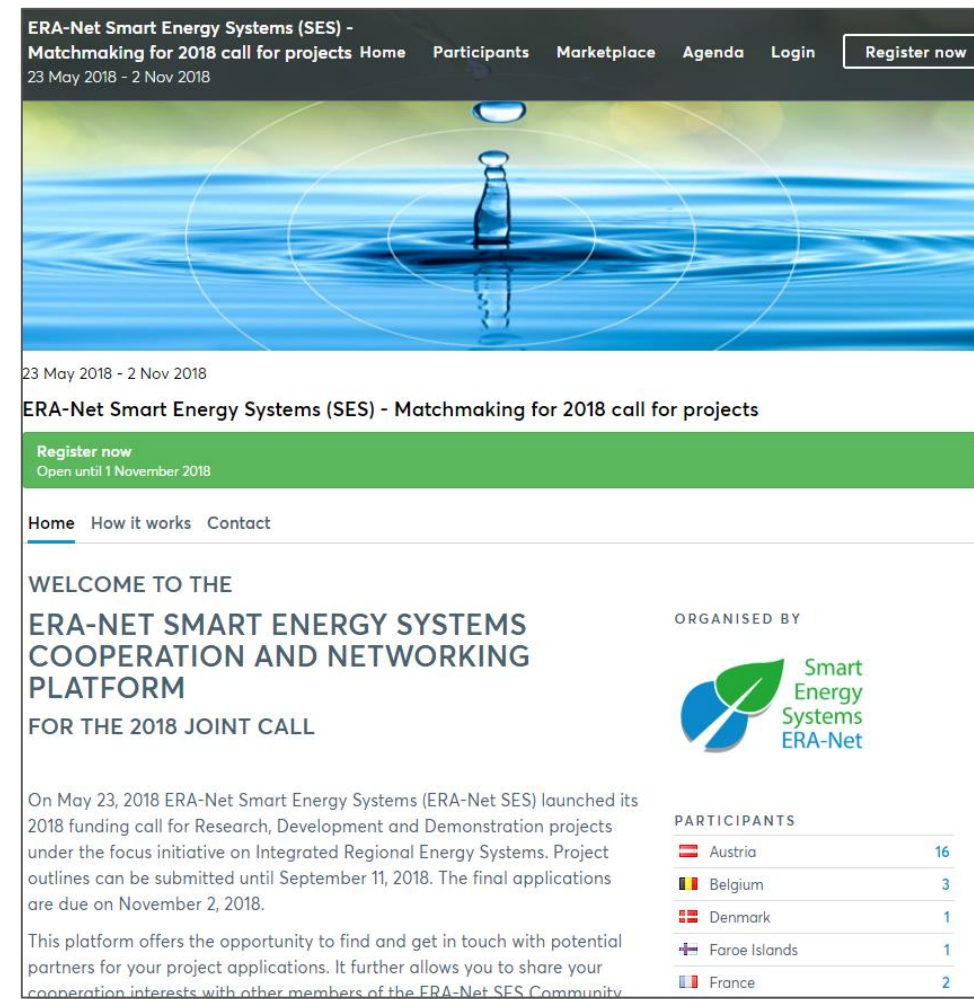
Networking & Transnational Cooperation Support

ERA-Net SES - Matchmaking Opportunities

Partner Search and Matchmaking Platform:

- Present your cooperation profile
- Search & find cooperation partners
- Link to representatives of the ERA-Net SES community

Register [here](#).

The screenshot shows the ERA-Net Smart Energy Systems (SES) Matchmaking Platform website. The header includes the title "ERA-Net Smart Energy Systems (SES) - Matchmaking for 2018 call for projects" and navigation links: Home, Participants, Marketplace, Agenda, Login, and a "Register now" button. The main banner features a blue water background with a glass bottle and ripples. Below the banner, the text "23 May 2018 - 2 Nov 2018" is displayed, followed by the title "ERA-Net Smart Energy Systems (SES) - Matchmaking for 2018 call for projects" and a green "Register now" button with the text "Open until 1 November 2018". The footer includes links for Home, How it works, and Contact. The main content area welcomes users to the "ERA-NET SMART ENERGY SYSTEMS COOPERATION AND NETWORKING PLATFORM FOR THE 2018 JOINT CALL". It mentions that the platform was launched on May 23, 2018, and provides information about the funding call for Research, Development and Demonstration projects. A table lists the participants by country, and a paragraph describes the platform's purpose.

ERA-Net Smart Energy Systems (SES) - Matchmaking for 2018 call for projects

23 May 2018 - 2 Nov 2018

23 May 2018 - 2 Nov 2018


ERA-Net Smart Energy Systems (SES) - Matchmaking for 2018 call for projects

Register now
Open until 1 November 2018

Home How it works Contact

WELCOME TO THE
ERA-NET SMART ENERGY SYSTEMS
COOPERATION AND NETWORKING
PLATFORM
FOR THE 2018 JOINT CALL






ORGANISED BY



On May 23, 2018 ERA-Net Smart Energy Systems (ERA-Net SES) launched its 2018 funding call for Research, Development and Demonstration projects under the focus initiative on Integrated Regional Energy Systems. Project outlines can be submitted until September 11, 2018. The final applications are due on November 2, 2018.

This platform offers the opportunity to find and get in touch with potential partners for your project applications. It further allows you to share your cooperation interests with other members of the ERA-Net SES Community

PARTICIPANTS

	Austria	16
	Belgium	3
	Denmark	1
	Faroe Islands	1
	France	2

ERA-Net SES – Web Information and Contact Points

ERA-Net SES Website

www.eranet-smartenergysystems.eu

Knowledge Sharing platform expera

www.smartgridsplus.eu

LinkedIn

<https://www.linkedin.com/in/eranet-smartgridsplus/>

Newsletter registration

www.eranet-smartenergysystems.eu

Webinars & other events

https://eranet-smartenergysystems.eu/News_Events/Events



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ERA-Net SES - Contact the Initiative

Office

office@eranet-smartenergysystems.eu

Call Management

callmanagement@eranet-smartenergysystems.eu

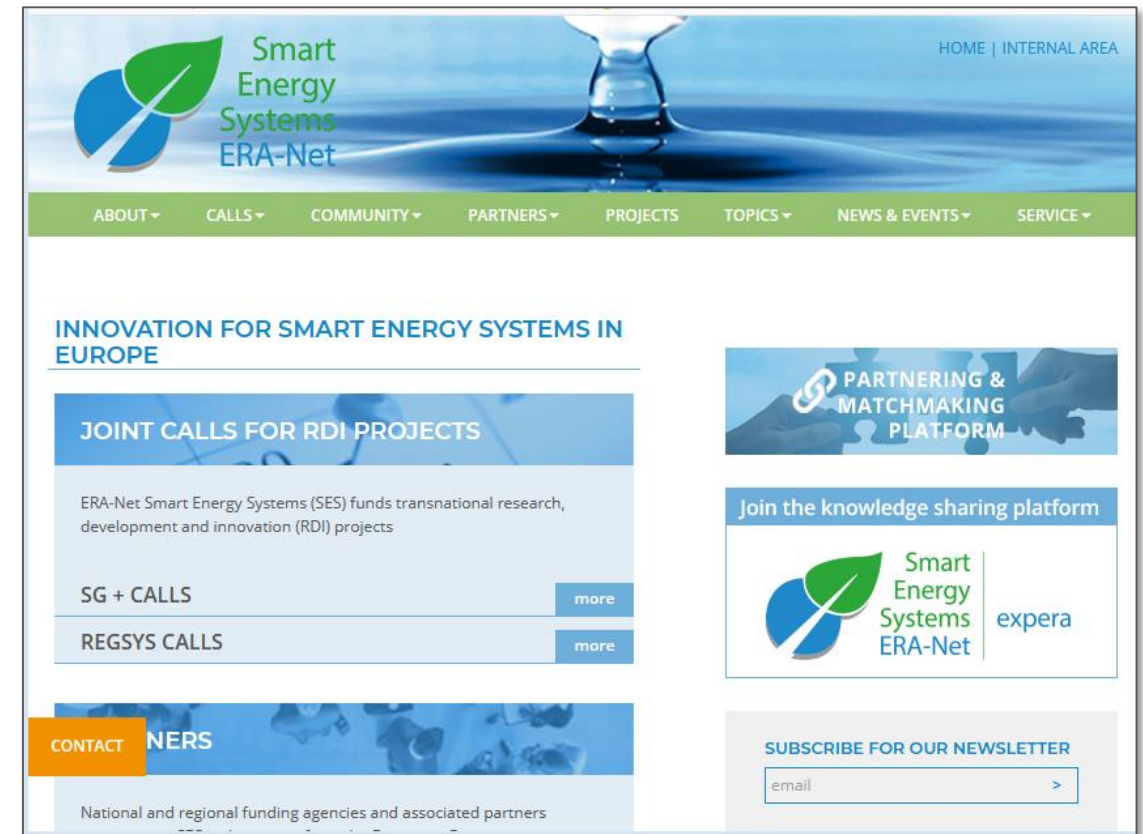
Knowledge Community

knowledgecommunity@eranet-smartenergysystems.eu

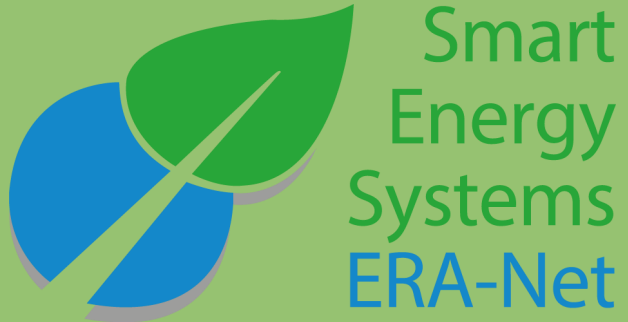
Coordination

Austrian Ministry for Transport, Innovation and
Technology

Coordinator: Michael Hübner



Funding Partners



This initiative has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements no. 646039 and no. 775970.



ADEME



Agence de l'Environnement
et de la Maîtrise de l'Energie



FOND ZA ZAŠTITU OKOLIŠA I
ENERGETSKU UČINKOVITOST



NATIONAL RESEARCH, DEVELOPMENT
AND INNOVATION OFFICE
HUNGARY



MINISTERO DELL'ISTRUZIONE DELL'UNIVERSITÀ E DELLA RICERCA



Ministry of Energy
www.energy.gov.it



MINISTERIO DE ECONOMÍA, INDUSTRIA
Y COMERCIO



CDTI
Centro para el Desarrollo
Tecnológico Industrial



The Research Council
of Norway



Regione
Lombardia



MINISTÈRE DE L'ENVIRONNEMENT,
DE L'ÉNERGIE
ET DE LA MER



eUDP
Energietechnologische Entwicklung und Demonstration



BUSINESS
FINLAND



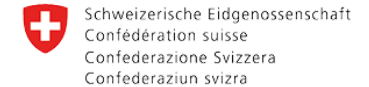
PTJ
Projektträger Jülich
Forschungszentrum Jülich



The National Centre
for Research and Development



GUVERNUL ROMÂNIEI
MINISTERIUL EDUCAȚIEI
NAȚIONALE



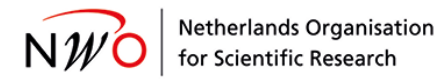
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



uefiscdi



seaí
SUSTAINABLE ENERGY AUTHORITY
OF IRELAND



NWO
Netherlands Organisation
for Scientific Research



Wallonie
énergie
SPW



Scottish Enterprise



FLANDERS
INNOVATION &
ENTREPRENEURSHIP



Flanders
State of the Art



klima+
energie
fonds



TÜBİTAK



REPUBLIC OF SLOVENIA
MINISTRY OF INFRASTRUCTURE



Swedish
Energy Agency



Innovation Fund Denmark



REPUBLIC OF SLOVENIA
MINISTRY OF INFRASTRUCTURE