



Smart
Energy
Systems
ERA-Net

>> MICALL19

Joint Call 2019



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accelerating the clean energy revolution



Smart
Energy
Systems
ERA-Net

on Energy Storage Solutions

Welcome! The webinar will start soon.



Webinar on Joint Call 2019

October 2, 2019, 13-14h CEST

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Smart
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Agenda

- About ERA-Net Smart Energy Systems
- Joint Call 2019 on energy storage solutions (“MICall19”)
- Knowledge Community & Associated Partners
- Networking & Transnational Cooperation Support
- Q&A

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Smart
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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).



Joint Programming Platform Smart Energy Systems ...

30 funding partners from 23 European countries and regions

Austria, Croatia, Denmark, Finland, Flanders, France, Germany, Hungary, Ireland, Israel, Italy, Latvia, Lombardy, Norway, Poland, Portugal, Romania, Scotland, Slovenia, Spain, Sweden, Switzerland, the Netherlands, Turkey & Wallonia



ERA-Net Smart Energy Systems has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements No. 64603 and No. 775970.

Joint Programming for Flourishing Innovation: From Local and Regional Trials towards a Transnational Knowledge Community



Goal

Organize the learning to enable the right technologies, market designs and customer adoption to achieve the smart energy system vision & goals of Europe

www.eranet-smartenergysystems.eu

Accelerating the clean energy revolution

25 partners from
around the globe



Goal Mission Innovation is a global initiative
of 24 countries and the European
Commission, working to accelerate
clean energy innovation.



Australia



Chile



Finland



Indonesia



Morocco



Saudi Arabia



United States



Austria



China



France



Italy



Netherlands



Sweden



Brazil



Denmark



Germany



Japan



Norway



United Arab Emirates



Canada



European Union



India



Mexico



Republic of Korea



United Kingdom

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2019 Joint Call on Energy Storage Solutions ("Mlcall19")

Joint Call 2019 on Energy Storage Solutions

21 countries and regions
from around the globe

> 22 M€ budget

FCT
Fundação para a Ciência e a Tecnologia

FFG
Promoting innovation.

Federal Ministry
for Economic Affairs
and Energy

Federal Ministry
Republic of Austria
Transport, Innovation
and Technology

ADEME



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



Ministry of Energy
www.energy.gov.cz



NATIONAL RESEARCH, DEVELOPMENT
AND INNOVATION OFFICE
HUNGARY



Klima+
Energiefonds



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation
Innosuisse - Swiss Innovation Agency

Ministry of Energy
www.energy.gov.it

CDTI
@CDTIofficial



MINISTERUL CERCETĂRII ȘI INOVĂRII

Regione
Lombardia



Ministerie van
Energie



MINISTERUL EDUCAȚIEI
NATIONALE

Nordic Energy
Research

The National Centre
for Research and Development

FLANDERS
INNOVATION &
ENTREPRENEURSHIP

Flanders
State of the Art

Wallonie
énergie
SPW

uefiscadi

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Federal Office of Energy SFOE



Scottish Enterprise



seai
Sustainable Energy Authority
of Ireland



Forschungszentrum Jülich



MINISTERO
DELL'ISTRUZIONE
E DELLA RICERCA



eUDP



Swedish
Energy Agency



The Research Council
of Norway



Innovation Fund Denmark



Ministry of Energy



NWO



TÜBİTAK



Ministry of Infrastructure



DEPARTMENT OF
SCIENCE & TECHNOLOGY
Ministry of Science and Technology
Government of India

BUSINESS
FINLAND



AUSTRIA



DENMARK



ESTONIA



FINLAND



FLANDERS



GERMANY



ICELAND



INDIA



ISRAEL



ITALY



LATVIA



LITHUANIA



MOROCCO



NORWAY



POLAND



ROMANIA



SCOTLAND



SWEDEN



SWITZERLAND



TURKEY



WALLONIA

Joint Call 2019 on Energy Storage Solutions

- **Deadlines:** expression of interest 14:00 CET, November 12, 2019
proposal submission 14:00 CET, January 22, 2020
- **Compulsory advisory period:** September 18, 2019 – January 22, 2020
- **Call budget:** **>22 MEUR**
- **Funders:** JPP SES and Joint Call 2019 Funding Partners
- **Transnational projects** Each project must include partners from minimum 2 countries/regions participating in the call.

www.eranet-ses.eu/JointCall19

What kind of projects are we looking for?

Projects shall develop **sustainable integrated energy storage systems** for both **short- and long-term** storage including electrical, electrochemical, material, thermal and mechanical storage. The **new solutions for existing energy systems** shall contribute to **solving challenges** defined by Mission Innovation and European roadmaps. Also, solutions shall enable **collaboration between stakeholders** (e.g. SMEs, organisations and communities). Identifying and **involving need-owners** is highly encouraged.

Joint Call 2019 on Energy Storage Solutions

This call will support Research, Development and Demo Projects within areas such as:

- Electrical Storage
- Electrochemical Storage
- Thermal Storage
- Mechanical Storage
- Material Storage

Requirements

- ☐ Transnational (at least two independent partners from two different countries)
- ☐ Expected TRL 5-8 (lower TRLs may be included)
- ☐ Develop clearly defined integrated storage solution
- ☐ Replicable and Transferable
- ☐ Diversity
- ☐ Show critical mass
- ☐ National Criteria

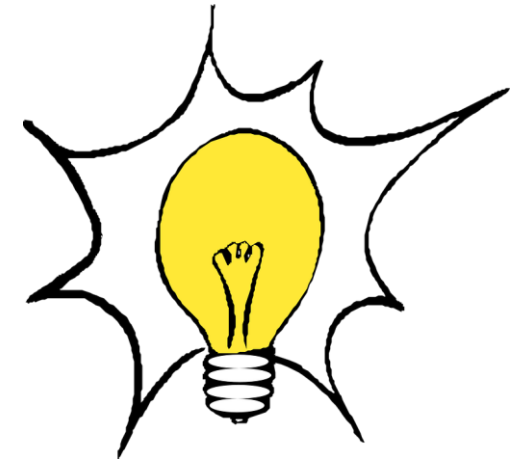
Challenges where different types of partners from different parts of society should collaborate to offer solutions to existing energy systems. Examples are, but not limited to:

- balancing output from community scale renewables projects (wind, solar, marine, geothermal) with community scale storage (e.g. batteries, hydrogen, small pumped hydro) ?
- using vehicle to grid technology to create a virtual large-scale storage service at district level which could offer a service to grid operators
- integrating thermal storage into individual buildings or district heating systems as a means of absorbing excess renewables on the grid or even a means of seasonal storage of energy at large scale
- Materials and systems engineering research to resolve key technology cost and performance challenges of known and emerging storage technologies. In particular, proposals should aim at new storage technologies with a significant improvement on the reduction of capital cost, increasing system efficiency and extension of life cycle over the state of art performance.
- ‘First of a Kind’ innovative storage systems

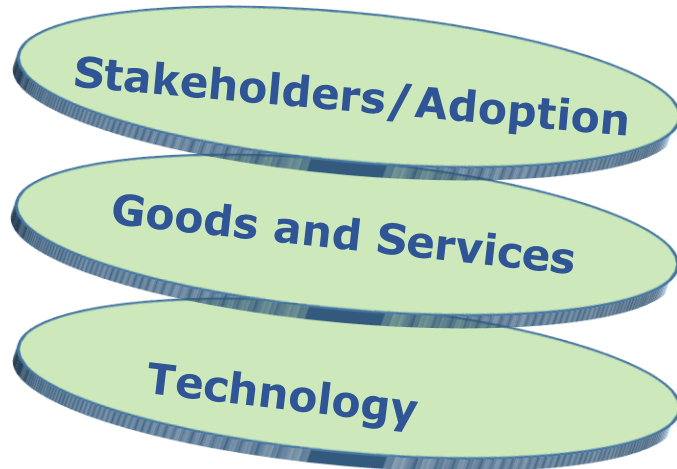
Deadline project outline: 12 November 2019

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 2020, project end by 15 December 2023
(i.e. max duration 36 months, min duration 24 months).



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.)

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 and relevance.

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

3. **Funding partners selection and outcome**

The final step of the evaluation process is a joint meeting of the funding partners consortium to select projects for funding according to the ranked list from the independent experts. The outcome will be reported to the applicants in May 2020.



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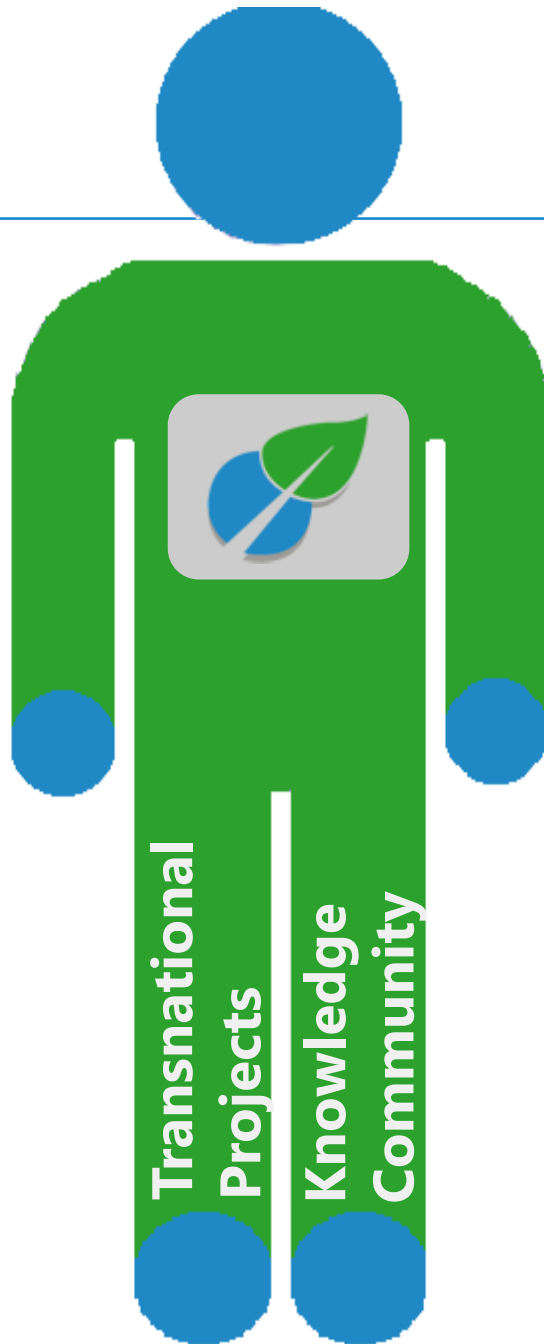


Knowledge Community and Associated Partners

ERA-Net SES universe – the holistic approach



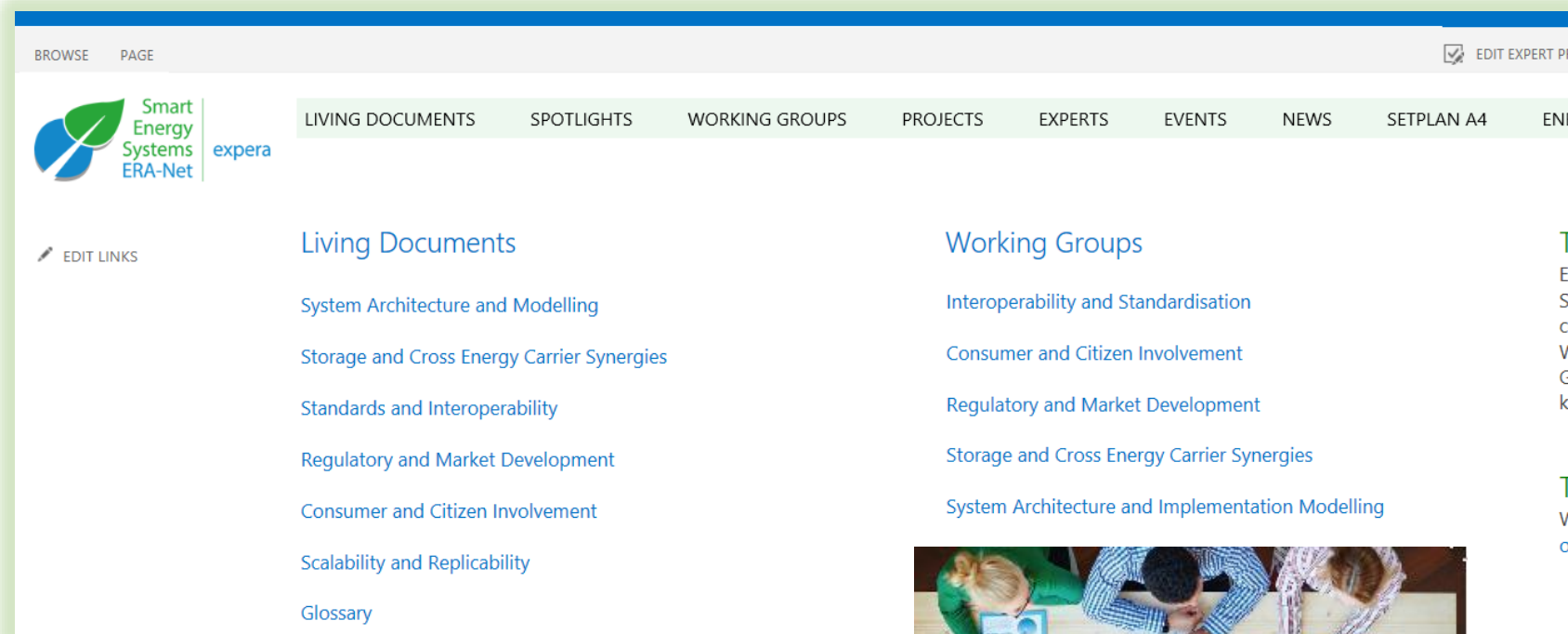
Walking on two legs



- 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

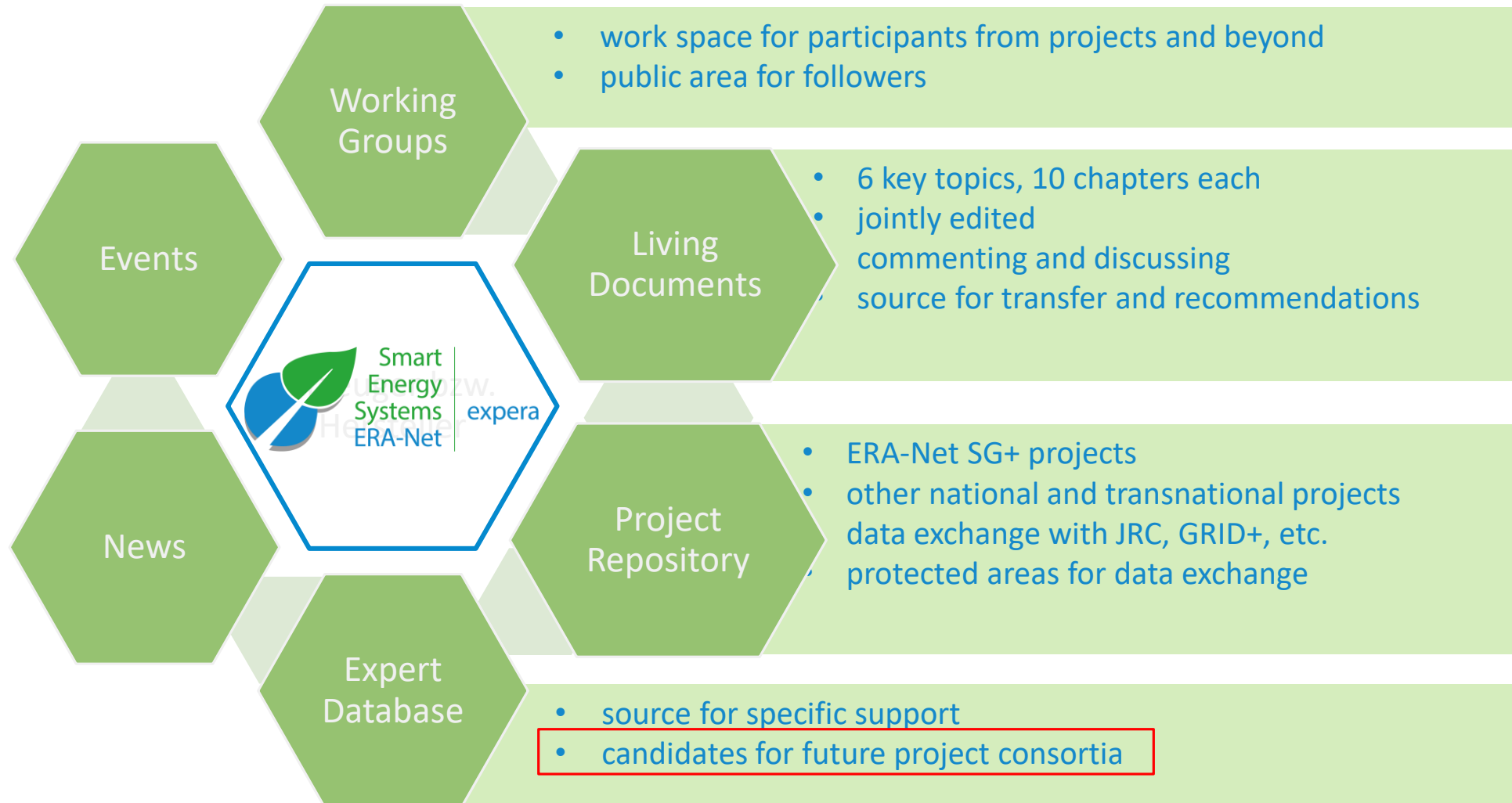
- ERA-Net SES projects
- (Trans-)National key projects
- International RDD projects
- Smart Grids practitioners
- Agenda setters and policy makers




www.smartgridsplus.eu



„one-stop shopping”: the Knowledge Sharing Platform



expera – expert search function



expera

EDIT LINKS

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Living Documents

[System Architecture and Modelling](#)

[Storage and Cross Energy Carriers](#)

[Standards and Interoperability](#)

[Regulatory and Market Development](#)

[Consumer and Citizen Involvement](#)

[Scalability and Replicability](#)

[Glossary](#)

News

[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 & expera successfully launched in Stockholm](#)

[Go, expera, go!](#)

1 - 5 ▶

Events

This information has not been shared with you. If you are a full expert to participate in all activities of Expera...

DOCUMENTS

SPOTLIGHTS

WORKING GROUPS

PROJECTS

EXPERTS

EVENTS

NEWS

SETPLAN A4

ENERGIE & IKT

MANAGEMENT

EXCHANGE

Search...

The Knowledge Community Platform

Expera, 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 expectations.

Terms of Use

When using the expera platform you have agreed to the [conditions of use](#).

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 energy markets
[expera.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 date
[expera.smartgridsplus.eu/Lists/Experts/DispForm.aspx?ID=163](#)

Weigert
Data analytics, Smart Metering, Consumption Behaviour ... Machine Learning, Data Science, **regional** eco-tariffs ...
[expera.smartgridsplus.eu/Lists/Experts/DispForm.aspx?ID=477](#)

Rechter

[Manuals of expera](#)

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 call

Associated Partners (April 2019)



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Networking & Transnational Cooperation Support

Joint Programming Platform – Smart Energy Systems Conference 2019



Launch of the Joint Call 2019

on Energy Storage Solutions

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Project Result Pitches

& appraisal by expert panel

Matchmaking

for the Joint Call 2019

Knowledge Community Meetings

with Working Groups
and peer feedback



ERA-Net Smart Energy Systems has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements No. 64603 and No. 775970.

Join us in Namur, Belgium on October 7-9!

More info and registration on www.eranet-smartenergysystems.eu

ERA-Net SES - Upcoming Events & Matchmaking Opportunities

Further Webinars:

- October 22, 2019, 13:00-14:00 h CEST
- November 26, 2019, 13:00-14:00 h CET

Register [here](#).

Events:

- European Call Launch, 7 October 2019, 16:00-18:00 (CEST) in Namur, Belgium
- Face-2-Face Matchmaking, 8 October 2019, 08:45-13:00 (CEST) in Namur, Belgium
- Find all events on our [website](#).

Online Partner Search and Matchmaking Platform:

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

Register [here](#).



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

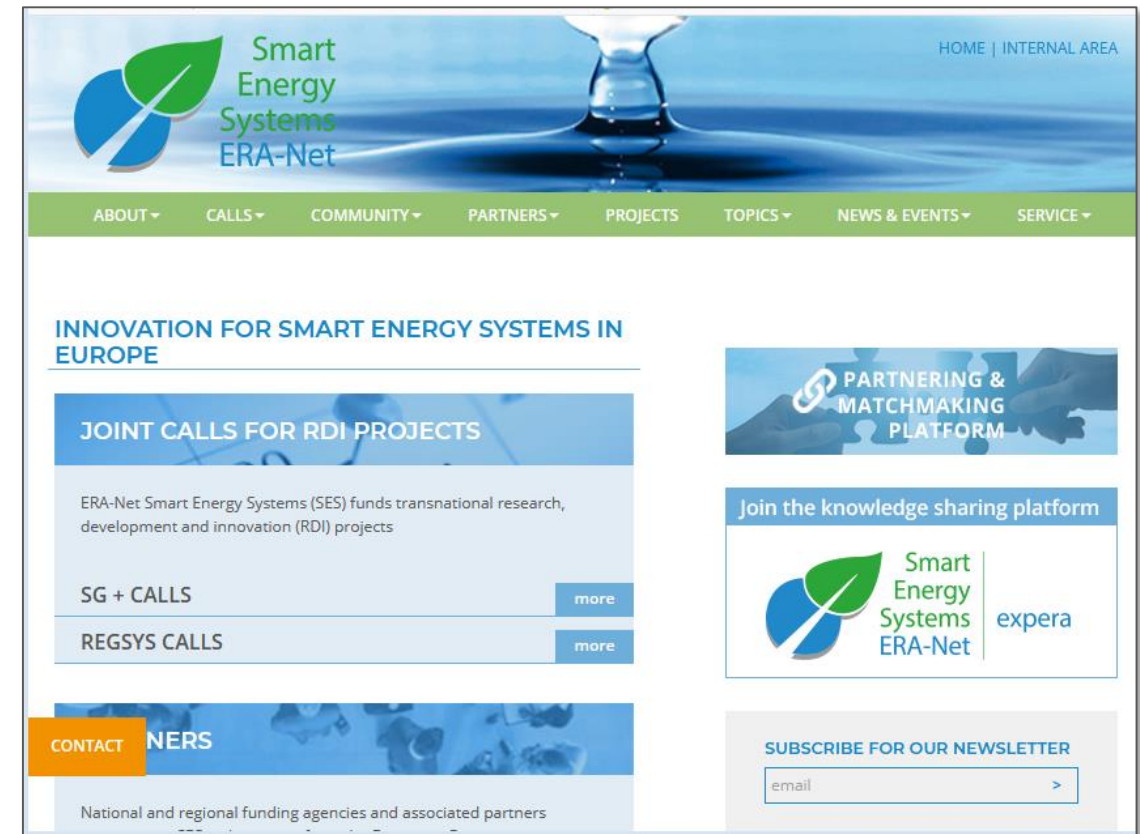
Knowledge Community

knowledgecommunity@eranet-smartenergysystems.eu

Coordination

Austrian Ministry for Transport, Innovation and Technology

Coordinator: Michael Hübner



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Q&A

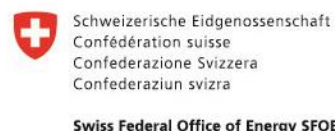
JPP SES and Joint Call 2019 Funding Partners



ADEME



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



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