



# **JOINT CALL 2020 DIGITAL TRANSFORMATION FOR GREEN ENERGY TRANSITION (MICALL20)**

**CALL FOR PROPOSALS** 



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### 1 TIMELINE OF THE JOINT CALL 2020

This document is an invitation to respond to the Joint Call 2020 on digital transformation on green energy transition. The total available budget is ~25 Mio €, including EU co-fund contribution.

Call opening 14 December 2020

Launch and matchmaking events Find the latest update on events and

webinars on the webpage

Compulsory advisory period 14 December 2020 – 6 May 2021

Compulsory registration of interest 17 February 2021, 14:00 CET

deadline

**Application portal opening for full** 12 March 2021

proposal submissions

Full proposal submission deadline 6 May 2021, 14:00 CEST

Final national/regional eligibility

June – September 2021

checks and expert evaluation period

Selection period October - November 2021

Deadline funding decision feedback November 2021

**Expected project start** Before 15 June 2022

Project proposals must be submitted electronically. More information about the call and the online Electronic Submission System can be found at the ERA-Net SES website: <u>Joint Call 2020</u>.

### 2 BACKGROUND

Transforming the global landscape of energy supply and solutions towards a decarbonised, secure and resilient energy system will need holistic system solutions incorporating technologies that can be replicated and scaled. The goals of the Paris Agreement may still be achievable but will require more ambitious and faster emission reductions on a global scale.

Together with the Mission Innovation initiative, the European Union is working to accelerate global clean energy innovation to make clean energy available for all. As part of this global effort, the European Union has the ambition to become the world's first climate-neutral continent, as presented in the European Green Deal by President Ursula von der Leyen of the European Commission. This is not only motivated by the climate change, but also by an economical ambition of being in the lead in circular economy and clean technologies. The global race against climate change is also a race to secure financial stability in the new, energy economy.





Digital technologies, as deployed in a broad range of business and media applications on a global basis, are tools that may enable energy systems around the world to be more connected, intelligent, efficient and reliable, and by including renewable energy sources, also to be more sustainable. The digital transformation is therefore expected to have wide effects on the future design of energy systems. At the same time, as a lot of the required ICT-technology for this transformation has already been developed and come far in transforming other sectors of society, it's important that the development in the energy sector efficiently harness the existing knowledge and technologies while developing the new solutions for the energy system. Finally, while digitalisation can bring many positive effects, it can also make energy systems more vulnerable. It remains to be discovered how this evolution will affect the energy transition and how we can ensure that the effects contribute to increased sustainability.

# 3 PARTICIPATING COUNTRIES AND REGIONS

The countries and regions participating in the Joint Call 2020 consists of a subset of national and regional funding partners from the ERA-Net Smart Energy Systems (ERA-Net SES) initiative and external partners connected to the Mission Innovation (MI) initiative. An overview of participating countries and regions is depicted below (Fig. 1).



Fig. 1: Joint Call 2020 digital transformation for green energy transition (MICall20) partners





# 4 AIM, SCOPE & CHALLENGES OF THE JOINT CALL 2020

The overall aim of the Joint Call 2020 is to support transnational research and innovation activities, unleashing the potential of digital transformation for a sustainable energy society. By accelerating the implementation, adaption and knowledge creation of digital solutions also in energy systems and networks, this call supports the following objectives:

- Advance the green energy transition in all sectors of the energy system while ensuring security of supply
- Shaping new transnational business and investment opportunities by sector coupling and development of new value chains in innovative and cost-effective energy solutions, thereby creating new employment opportunities and contributing to the development of an environmentally sustainable financial growth
- Ensuring social sustainability and coherence with digitalisation in other sectors in the progression of the green energy transition

Projects answering to this call are expected to address key challenges and opportunities relating to one or more of the abovementioned objectives. This may include aspects related to (however not limited to):

- Social sustainability
  - gender and diversity aspects of digitalization in the energy system such as artificial intelligence (AI)/machine learning and the effect of gender and diversity biased data and socioeconomic sustainability on digitalization from a gender and diversity perspective
  - o privacy, ownership, and integrity
  - solutions to overcome energy poverty and foster inclusion of all societal groups into the energy transition
- Energy and ICT infrastructure
  - Next generation energy network technologies including electricity systems with DC grid technologies at all voltage levels
  - Future thermal grid systems including low temperature heating and cooling grids
  - o Data platforms/APIs, interoperability, and standardisation
  - Resilience, cyber security (vulnerabilities, failures, risks) and data security
  - Internet of things (IoT), 5G, smart buildings, smart metering, sensors and automation, including adaptation of consumer behaviour and automated consumption planning
  - inclusion of energy system relevant sectors such as transport and mobility or farming
  - Resource efficiency (including energy), also of ICT itself
  - Artificial intelligence/machine learning
- Energy marketplaces, business models and communication
  - Sector coupling of traditional energy actors to stakeholders and partners in other domains such as agriculture, mobility or production enterprises
  - Energy management and services





 Big data and management of big data from different sources (planning tools, management tools, market platforms, smart meters, social medias, etc.)

#### 5 PROPOSAL SET-UP AND PROJECT REQUIREMENTS

Each project answering to the Joint Call 2020 should identify and address critical challenges in the digitalisation process towards a green energy society. Projects are strongly encouraged to involve "need-owners" and relevant stakeholders in all project phases to maximise market acceptance and uptake within the development of technologies and solutions.

The project consortia applying for the Joint Call 2020 are asked to elaborate on:

# 1. Identification of challenges for digitalisation of energy systems and networks and their "need-owner(s)"

 Description of processes and methodologies for identifying critical needs, in collaboration with the most significant "need-owner(s)" and other stakeholders. Such "need-owners" may include infrastructure operators, local industries or communities and end-users in value chains from the local and regional, up to the European and global levels. Projects are encouraged to engage with all relevant parts of the value chain for the developed solution.

#### 2. Description of RDD activities and co-creation of solutions

- Description of activities in the fields of research, development and demonstration and/or real environment testing.
- Description of chosen processes and methods for collaboration between project partners, "need-owner(s)" and other stakeholders.
- Description of how "need-owner(s)" and relevant stakeholders (such as technology and service providers, innovators, start-ups, end-users and communities) should participate in the planned solutions development, demonstration and transfer activities to ensure that the viewpoints, knowledge and expertise of the "need-owner(s)" and relevant stakeholders are involved in all solution development stages. Project teams are expected to include partners from different parts of society with a "digital" and close to market mindset in transnational collaboration, to develop scalable, customizable and replicable solutions. Coordinating and linking research activities with <a href="living labs">living labs</a><sup>2</sup> may facilitate the development and field-testing of prototypes. Projects are also encouraged to engage with <a href="digital">digital</a> platform</a>

<sup>&</sup>lt;sup>1</sup> By "**need-owner**" this call refers to the role of 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. The "need-owner" has practical insights into what the actual need is and an interest to be involved in the development of a solution. This ensures the development of an optimal solution and facilitates the "need-owner(s)" acceptance and implementation of the solution. There can be more than one "need-owner" to the same need.

<sup>&</sup>lt;sup>2</sup> Living labs are user-centred, open-innovation ecosystems often operating in a territorial context (e.g. city, agglomeration, region). Here, new energy solutions can be tested in real life operating conditions, including failures, behaviour and misuse of solutions to detect full impact as well as weaknesses, learnings and opportunities for improvement. Living labs will allow start-ups and innovative companies to test their solutions in different frameworks. It will also promote the development of interoperable solutions, enabling wider impact and use of applications, systems and services and providing open, independent development and test environment.



<u>providers</u> (DPPs)<sup>3</sup> to enhance access to existing data, software, service, and business platforms and increase the market readiness level of the project solutions. ERA-Net SES operates an <u>information and matchmaking platform</u> where interested parties can link to LLs and DPPs and include them in their development plans in various ways.

### 3. Scaling up, replication and dissemination strategy

- Description of the potential for subsequent scaling up, replication and transferability of solutions, including description on how to achieve marketreadiness (TRL 8-9) for the solutions developed during the project. While solutions may be developed for the concrete needs in a specific region, projects should also keep larger scale markets of solutions and technologies in mind. High flexibility and adaptability of developed solutions will increase the applicability on the global markets.
- Description of IPR, knowledge sharing and publication of results, including open data strategies, identifying solution synergies and plans for developing next steps.
- The opportunities for creating policy briefs and guides or other deliverables in the framework of the <u>ERA-Net SES Knowledge Community</u> should also be considered. Projects supported by ERA-Net SES consortium partners are expected to actively participate in knowledge sharing and learning as organised by the ERA-Net SES Knowledge Community. The activities will encourage collaboration with other projects resulting from this call, previous calls, additional experts and associated partners (see <u>section 5.2</u>).

Proposals that intend to develop digital services should, as far as feasible, use existing digital platforms<sup>4</sup>, rather than expend project resources to develop their own. The ERA-Net SES <u>matchmaking platform</u> displays a set of pre-selected <u>digital platform providers</u> (DPP) that are committed to support project development and implementation.

The proposal must demonstrate added value from the international cooperation, in comparison to national projects, which should be evident in the layout and execution of the work packages. The work plan must show real cooperation and project outputs are expected to provide benefits to all partner countries. Synergies with other relevant national or international projects, current and concluded, should be described in the project proposals.

### 5.1 Project requirements

The following criteria apply for project proposals in the Joint Call 2020:

# Transnationality:

Consortia must include at least two independent legal entities applying for funding from two different countries (whereof at least two partners from the EC and/or EEA region) of the funding agencies participating in the <u>Joint Call 2020</u>.

The number of partners per consortium is not limited, but the manageability of the consortium must be demonstrated (efficient consortia of 5-8 partners for medium-sized projects with total budget in a range of 1-2 Mio € are typical, but this does not exclude smaller/larger projects). The involvement of more than two countries will be

<sup>&</sup>lt;sup>3</sup> DPPs as enablers of software solutions will be asked to develop a portfolio of offers to RDD projects from DPPs with free and/or limited access to platform solutions, e.g. cloud available services or results from previous projects and describe available platform solutions for project applicants and innovation stakeholders. DPPs can be included into the development phase of RDD projects project development phase by giving input into what (IT) requirements projects need to meet when developing their solutions. They may support project in product and services development and after the project support bringing the solutions into practice.

<sup>&</sup>lt;sup>4</sup> E.g. data platforms, software platforms, ledger technologies, etc.





encouraged. Consortia also need to be balanced between countries both in terms of number of partners and distribution of budget; such that all project partners contribute to and benefit from an equitable and balanced cooperation. Requested funding for one partner may not exceed 70% of the total requested funding budget.

If partners in the consortium are found ineligible for funding by the involved funding agencies, the minimum number of participating countries must be met, regardless of the provided "fallback strategy".

# • "Fallback strategy":

Consortia with three or more participating countries involved are required to offer a "fallback strategy" for cases in which one or some of the involved funding agencies considers the project as ineligible. The "fallback strategy" must be part of the risk assessment of the proposal and should be structured as follows:

- Scenario A: Project partners from country A are not eligible: The project can still be implemented, because...
- Scenario B: Project partners from country B are not eligible: The project cannot be implemented anymore because...
- o Ftc

The "fallback strategy" should clearly explain how the project could be executed without the ineligible partner(s) in question and without the sought funds of the partner(s).

If the project proposal does not pass the national/regional eligibility check in one country/region and there is no "fallback strategy" provided for this case, the project will not be considered for funding and will not be forwarded to the evaluation phase. Furthermore, please consider that the project proposal needs to pass the national/regional eligibility check in at least two participating countries.

If, however, the consortia cannot foresee how the project can be executed without all partners in the proposal, then a "fallback strategy" may be omitted.

The "fallback strategy" will be evaluated by the independent expert panel in cases where a partner is found ineligible during the evaluation phase. The "fallback strategy" is not applicable during the selection phase and in cases where national/regional funding has been exhausted.

#### TRL level:

Projects should develop digital energy system solutions, including demonstration of solution(s) or a timely roadmap for the latter. Projects should address solutions within Technology Readiness Level 4-8 (TRL - see definitions in Annex E). Activities with lower TRL levels may be included if they contribute to the higher project goal. Projects may expand on results from and connect to ongoing or recently finished demonstration projects (utilise test infrastructure, utilise knowledge, cooperation of key demos, transfer of results, establishment of new business activity, etc.). They however must show complementary and added value, avoiding duplication. Projects should develop new solutions with the potential to become best practice within a few years after the end of the project.

#### • Three-Layer Research Model:

The Three-Layer Research Model encompassing Stakeholder/Adoption, Goods and services and Technology (see Annex A) should be implemented in the project proposal. This normally includes considering business models, market strategies and consumer needs and engage private and public stakeholders in co-creation ecosystems. Projects are encouraged to incorporate all three layers of the model in their project application.

### • Equality and diversity perspectives:



Project proposals should consider and include equality and diversity perspectives related not only to gender, but also ethnicity, age, socio-economic status, physical abilities, political beliefs, geography etc. throughout the project. Proposals should therefore be gender balanced, especially among the personnel mentioned in the proposal to be primarily responsible for carrying out the research and/or innovation activities. In addition to equality amongst the project participants, diversity perspectives should also be included as an integrated part of the project research. Adoption and success of new energy solutions in local communities, and in society in general, requires careful consideration of the prosumer and end user's needs. To be able to evaluate the highly variable consumer needs and to inspire the most creative and effective solutions, the composition of a successful project consortium should ideally reflect the diversity in society.

## • Climate impact of project implementation:

Projects should describe how the execution of the project will be performed with minimal climate impact while still maintaining high impact and efficiency in transnational collaboration.

#### Project duration

Projects are required to start before 15 June 2022 and must be completed (including all reporting) by 15 June 2025. The maximum duration of a project should be 36 months (limited to national/regional specific requirements). The minimum allowed duration of a project is 24 months.

Project proposals should refer to:

existing reference architecture models and common standards<sup>5</sup> as they exist.

Please consider that the Joint Call 2020 Call Management may discard applications given the following conditions:

- incomplete proposals where substantial parts of the application are missing
- submissions submitted after the deadline or without using the Electronic Submission System
- if the proposal does not fulfil the transnationality requirement

Discarded applications will not be forwarded to eligibility checks or expert evaluation.

# National/regional eligibility criteria must be respected in addition to the Joint Call 2020 project requirements.

A summary of national/regional eligibility requirements is provided under <u>Annex B</u>. It is essential that applicants familiarise themselves with their respective funding agency's rules. It is mandatory that they contact their respective national/regional contact points during the advisory period for clarifications prior to submitting a full project proposal.

<sup>&</sup>lt;sup>5</sup>Including Smart Grid Architecture Model developed under standardisation mandate M/490 and follow-up activities, regulatory environment for privacy, data protection, data management and alignment of data formats (e.g. the work of the ad-hoc group on "My Energy Data" and its respective follow-up), cyber security, smart grid deployment, infrastructure and industrial policy (<a href="http://ec.europa.eu/energy/en/topics/markets-and-consumers/smart-grids-and-meters/smart-grids-task-force">http://ec.europa.eu/energy/en/topics/markets-and-consumers/smart-grids-and-meters/smart-grids-task-force</a>).



# 5.2 Knowledge Community – background and requirements

All applicants in this call should participate in the ERA-Net SES Knowledge Community (see Standard Work Package, Annex F). Cooperation and facilitation in the below-mentioned activities are mandatory for all projects funded in the Joint Call 2020. The final organisation and execution of these activities will be the result of an iterative process between the Knowledge Community Management and each funded project, as applicable. The project proposal should include the mandatory work package that implements these activities (described in section 5.2 and Annex F). In the design of their own dissemination and exploitation strategies, projects should consider potential synergies with and contributions to the ERA-Net SES Knowledge Community.

Participation of non-ERA-Net SES project partners in the Knowledge Community is not mandatory, as various meetings take place in Europe, but highly recommended as the participation may contribute to the dissemination and global integration of project results. This will become easier as the Knowledge Community Management plans to implement ever more virtual meetings. Collaboration between the selected projects in the Joint Call 2020 and previously selected projects may also aid the discovery of synergies between projects and greatly enhance the development of the projects. Inclusion of participation in the Knowledge Community should be as per the prevailing guidelines of the relevant funding agency.

## 5.2.1 Background

The Joint Call 2020 Coordination Team implements advanced and innovative follow-up, monitoring and transfer activities to create an ERA-Net SES Knowledge Community. It is organised by the ERA-Net SES Knowledge Community Management<sup>6</sup>.

The goal of the Knowledge Community is to enable knowledge exchange between past and ongoing projects and with national and international experts to leverage synergies of efforts. The Knowledge Community aims to develop and present state-of-the-art knowledge and discussions in the field of Smart Energy Systems and to be a hub and voice for all information related to national/regional Smart Energy RDI (Research, Development, and Innovation). To this end, the Knowledge Community will link experts from the funded projects<sup>7</sup> and actors of other national, transnational and international smart energy activities. It will also provide connections to policy makers, stakeholder organisations, programme owners, SMEs and academia from outside the Knowledge Community to offer knowledge and to aid them in making strategic decisions. To involve key stakeholder groups and exploit specific potentials, the Knowledge Community will involve so called Associated Partners that can contribute specific knowledge, tools or means of approaching stakeholders. In addition, the Knowledge community links to selected Digital Platform Providers and Living Labs for advanced testing.

The key means of managing a lively Knowledge Community are Living Documents and physical and virtual Working Group meetings. Cooperation and knowledge are being managed on the comprehensive expera web platform.

The Knowledge Community Management will implement an interactive, formative evaluation process where the projects' results are assessed on a peer-to-peer basis and against state-of-the-art knowledge. Thus, projects get the opportunity to monitor their progress and results and communicate it to the involved funding partners and other projects. The evaluation will emphasise the importance of interoperability, scalability and replicability of the results. It may also aid the exploitation and deployment of the solutions on a national and international level.

The Knowledge Community is an integral part of the Joint Call 2020 concept. It is therefore important that applicants fully consider this concept and its content when formulating the project proposal (e.g. by applying and accessing the expera platform as an expert).

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<sup>&</sup>lt;sup>6</sup> http://www.eranet-smartenergysystems.eu/About/Our\_Organisation

<sup>&</sup>lt;sup>7</sup> Including funded projects from previous ERA-Net SES calls



### 6 GUIDANCE FOR APPLICANTS

### 6.1 Call procedure

The call procedure has three steps;

- the proposal phase
- the evaluation phase and eligibility check
- the selection phase

During the proposal phase, there will be a compulsory advisory period and registration of interest for all potential project applicants. During the advisory period, the project applicants are obliged to seek support and guidance from their respective agencies. This is to increase the suitability of the projects with respect to national/regional requirements. The applicants are also obliged to submit a registration of interest by 17 February 2021, 14:00 CET, in the online Electronic Submission System. The registration of interests includes provisional information about project name, short description of topic, approximate amount of funding applied for and potential partners.

During the eligibility and evaluation phase, the project proposals will be subjected to an eligibility check of formal requirements, national/regional eligibility check, and a transnational independent expert evaluation. The project proposals must include all necessary information and documentation, as well as any information needed to fulfil national/regional requirements. If these formal requirements are not met, the project proposal will not pass the evaluation phase. The different steps of the evaluation are described in more detail in the following sections (6.1.1–6.1.4).

The ERA-Net SES Call Management<sup>8</sup> will facilitate the call process.

| Call procedure timings |  |                               |
|------------------------|--|-------------------------------|
| Proposal phase         | Call opens   | 14 December 2020              |
|                        | Compulsory advisory period                               | 14 December 2020 – 6 May 2021 |
|                        | Compulsory registration of interest deadline             | 17 February 2021, 14:00 CET   |
|                        | Application portal opening for full proposal submissions | 12 March 2021                 |
|                        | Full proposal submission deadline                        | 6 May 2021, 14:00 CEST        |
| Eligibility and        | Eligibility check of formal                              | February – September 2021     |
| evaluation phase       | requirements   |                               |
|                        | Transnational expert                                     |                               |
|                        | evaluation   |                               |
|                        | National/regional eligibility                            |                               |
|                        | check  |                               |
| Selection phase        | Decision communicated to applicants                      | November 2021                 |
| Project phase          | Project start date                                       | Before 15 June 2022           |

### 6.1.1 Project proposals

The project proposal phase opens on 14 December 2020. Consortia are required to submit their registration of interests and project proposals and any supporting documents in English via the <u>Electronic Submission System</u>, available on the <u>ERA-Net SES website</u>. Text and page limits are set within the Electronic Submission System, and applicants are advised to include

<sup>8</sup> http://www.eranet-smartenergysystems.eu/About/Our Organisation



information only directly relevant to this call to preserve focus, structure and clarity in the application.

The registration of interests is a prerequisite for submitting a full project proposal. It includes provisional information about project name, short description of topic, approximate amount of funding applied for and potential partners. The extent of the project outline will be no more than 2-3 A4 pages of text. The deadline for submission of the registration of interest via the <u>Electronic Submission System</u> is 17 February 2021 at 14:00 CET. The deadline for submission of the full project proposals via the <u>Electronic Submission System</u> is 6 May 2021 at 14:00 CEST.

Please note that some national/regional funding agencies may require additional documentation from the project partners according to national/regional regulations<sup>9</sup>. These should **not** be submitted in the central ERA-Net Smart Energy Systems Electronic Submission System, but directly to the relevant funding agency through their national/regional submission system (if applicable). Please consult your national/regional funding agency regarding this issue during the advisory period. It is the responsibility of each individual project partner to ensure that all the necessary documents are submitted on time to the appropriate recipient.

## 6.1.2 Advisory period

There will be a compulsory advisory period during the proposal submission period, during which the applicants need to contact their national/regional funding agencies. The applicants may receive feedback on their proposed project ideas from their individual national/regional funding agency in terms of scope, eligibility of partners and relevance of the project proposal depending on national/regional regulations. This will give the project partners the opportunity to revise their ideas and re-evaluate the participating partners and obtain necessary national/regional funding agency requirements information.

The national/regional contact points may provide information on the national/regional requirements for the project proposals, such as the potential requirement to submit a full national/regional proposal (i.e. in the national/regional funding agencies' submission system and language, adhering to national/regional regulations). Each project partner is responsible for the preparation and submission of all required documents according to their respective national/regional funding agency's eligibility rules. The advice given by the funding agencies to the project partners is non-binding. The advice provided does not engage the funding agencies with respect to acceptance or rejection of the full project proposal.

Only consortia that have contacted their respective national/regional funding agencies during the advisory period, submitted a registration of interest and submitted a full proposal through the Electronic Submission System, and to national/regional funding agencies where required, will be considered for eligibility during the evaluation phase.

### 6.1.3 Evaluation and eligibility process

The evaluation criteria are built upon three main criteria:

- a. Excellence.
- b. Impact.

c. Quality and efficiency of the implementation.

For a more detailed explanation of each criterion, please see <u>Annex D</u>. No preference is given to projects with partners from numerous different countries/regions. Different project

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<sup>&</sup>lt;sup>9</sup> Including regulations adopted to implement EU State aid rules





types require different numbers and types of partners (industry, academia etc.). The roles and activities of each partner within a project consortium should clearly add value to the objectives of the proposed project. Manageability of the consortium is key and must be demonstrated.

The evaluation and eligibility process comprise three steps, which are explained in detail below:

#### 1. Eligibility check

The Call Management will perform an eligibility check of formal requirements as described in the last paragraph of <u>Section 5.1</u>.

The national/regional funding agencies will consider the proposals based on specific national/regional requirements (Annex B).

As such, projects will be subjected to a check of eligibility both with regards to partners involved and if applicable, with regards to the relevance of the project proposal to national/regional programmes.

# 2. Transnational evaluation of the project proposals

In the evaluation phase a panel of at least three independent experts will evaluate each project proposal, based solely on the evaluation criteria specific to the Joint Call 2020 (see Annex D). Each independent expert will first individually evaluate the assigned project proposals. Afterwards, the experts will meet to form a consensus evaluation. This process will be overseen by an independent observer. The consensus evaluation will result in a ranked list of project proposals.

All evaluators and observers selected are required to declare their independence to the projects to avoid conflict of interest. They must adhere to the confidentiality conditions of the evaluation process.

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

The final step of the evaluation process is a joint meeting of the Joint Call 2020 consortium to select projects for funding according to the ranked list from the independent experts. The outcome will be reported to the applicants in November 2021.

## 6.1.4 Confidentiality

Handling of project proposals and any information relating to them will be kept confidential in accordance with the applicable national/regional regulations. Project proposals will not be used for any purpose other than the evaluation of the applications, funding decisions, monitoring of the projects and mandatory reporting to the European Commission and Mission Innovation.

### 6.2 Consortia

To aid applicants in forming project consortia, the ERA-Net SES initiative will host a series of webinars where applicants may receive answers to questions. A virtual <u>matchmaking platform</u> where potential applicants may find suitable project partners is available on the ERA-Net SES website.

The ERA-Net SES initiative has also coordinated a collection of Living Lab interested to engage with projects. Information on how to connect to and find potential Living Lab collaboration partners will also be readily available on the initiative <u>website</u>. The initiative will establish an Associated Partner Network with digital platform providers (DPP). The goal is to stimulate cooperation and create offers from these digital platform providers to RDD project consortia. Information on how to connect with DPPs is also available on the <u>website</u>.





Consortia may be constructed from at least two active partners from at least two different countries/regions participating in the Joint Call 2020. They have to abide by the requirements given in <u>section 5.1</u> and the regional/national requirements in <u>Annex B</u>.

Project partners from countries that are not members of the Joint Call 2020 (see list of funding partners under <u>section 6.3</u>, "Funding arrangements") are encouraged to join a project consortium as additional partners. However, these additional partners must finance their activities from other sources, as each Joint Call 2020 funding agency will only fund partners from their own country/region.

The project partners are required to sign a consortium agreement to agree on Intellectual Property Rights (IPR) and other relevant issues dealing with responsibilities within the project and exploitation of results. They should ensure that the agreements are not in conflict with the regulations of the relevant national/regional funding agencies. Model consortium agreements can be found at <a href="https://www.iprhelpdesk.eu/library/useful-documents">https://www.iprhelpdesk.eu/library/useful-documents</a>.

# 6.3 Funding arrangements

The total funding available for Joint Call 2020 projects amounts to ~25 Mio €, made up of national/regional budgets and European Union (EU) contribution. Funding of eligible costs will have to be in compliance with EU/EEA State aid rules. Please, see <u>Annex C</u> for more information on general EU/EEA framework for state aid and eligible costs. National rules prevail when they are stricter – see <u>Annex B</u>.

| Funding partners                      |   |   |         |
|---------------------------------------|---|---|---------|
| Country/<br>region                    | Funding (€) (minimum regional/national funding available) | Organisation name   | Acronym |
| Austria                               | 2 000 000   | The Austrian Research Promotion Agency                                | FFG     |
| Czech Republic                        | 1 000 000   | Technology Agency of the Czech<br>Republic                            | TA CR   |
| Denmark                               | 1 340 600   | Energistyrelsen   | EUDP    |
| Finland                               | 2 000 000   | Business Finland Oy   | BF Oy   |
| Germany                               | 2 000 000   | Forschungszentrum Jülich GmbH   | PtJ     |
| India                                 | 1 000 000   | Department of Science and Technology                                  | DST     |
| Israel                                | 900 000   | Ministry of Energy  | MOE     |
| Latvia                                | 400 000   | VALSTS IZGLITIBAS ATTISTIBAS<br>AGENTURA                              | VIAA    |
| Morocco                               | 500 000   | INSTITUT DE RECHERCHES EN<br>ENERGIE SOLAIRE ET ENERGIES<br>NOUVELLES | IRESEN  |
| Nordic and<br>Baltic region<br>(NOBA) | 600 000   | Nordic Energy Research  | NER     |
| Norway                                | 500 000   | Research Council of Norway  | RCN     |





| Poland        | 600 000    | National Centre for Research and Development  | NCBR           |
|---------------|------------|---|----------------|
| Romania       | 500 000    | Executive Agency for Higher Education, Research, Development and Innovation Funding | UEFISCDI       |
| Scotland (UK) | 2 000 000  | Scottish Enterprise   | SCOTENT        |
| Spain         | 800 000    | Centro para el Desarrollo Tecnologico Industrial E.P.E.                             | CDTI           |
| Sweden        | 2 000 000  | Swedish Energy Agency   | SWEA           |
| Switzerland   | 2 500 000  | Federal Department of the Environment, Transport, Energy and Communications.        | DETEC-<br>SFOE |
| Turkey        | 650 000    | The Scientific and Technological Research Council of Turkey                         | TÜBİTAK        |
| Total sum     | 21 290 600 |   |                |

## 6.4 Project duration

Projects are required to start before 15 June 2022 and must be completed (including all reporting) by 15 June 2025. The maximum duration of a project should be 36 months (limited to national/regional specific requirements). The minimum allowed duration of a project is 24 months.

# 6.5 Project monitoring and expected deliverables

Each project partner will be responsible for the necessary reporting to their funding agency according to national/regional rules. Yearly reports are required to obtain and maintain funding during the lifetime of their portion of the project. Apart from the national/regional project review, the transnational cooperation aspects will be monitored on the ERA-Net Smart Energy System level. Any substantial change in an on-going project must be reported immediately to the funding agencies involved, and subsequently reported to the Call Management. Project partners should be aware that changes may have implications on past, present and planned future funding.

In addition to the national/regional requirements, Joint Call 2020 projects are required to deliver the following:

- Participation in and presentations at meetings to report on the status of and results from the project. Detailed requirements for the contribution at these seminars will be specified in due course.
- An annual, common interim report. This interim report will be available to the funding organisations involved but will not be made public. Detailed requirements for this report will be specified in due course.
- 3. A single publishable and public final project report, which describes the activities and outcomes of the work. This should include an exploitation plan that states how the results of the project will be used. Detailed requirements for this report will be specified in due course. An abstract of the main results of the project will also be part of this report. Detailed requirements for the abstract will be specified in due course.

Applicants should be aware of the core ideas of the Knowledge Community and how the Knowledge Community Management will affect the work and composition of the projects (see <u>Annex F</u>). Active participation in knowledge-sharing and formative evaluation activities





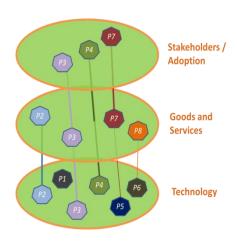
organised by the Knowledge Community Management must be considered (e.g. in terms of resource allocation) when planning and managing the project workplan, set-up and budget.





# ANNEX A - THREE-LAYER RESEARCH MODEL

To reach the goals and desired impacts of Joint Call 2020 partners in a multi-dynamic environment, it is necessary to continue developing and introducing the right enabling technologies, develop and structure the market with new goods and services, and to learn more about how to overcome barriers built into communities and society. This indicates the need for a cross-sectoral and interdisciplinary approach, including regionally available renewable resources, system integration of technologies, business processes. services. tools. market architectures and regulatory regimes, potential synergies in infrastructures, convergence of technology and application areas as well as basic design principles (security and privacy, resilience, energy and resource efficiency of equipment and components).



The essential innovations to be achieved can be visualised in these three layers:

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 form other sector available for the energy system? - telecommunications, machine learning, cross energy carrier solutions, grid automation, technological research etc.)

Please note that the methodologies and approaches to study the layers included in the project should be clearly defined. The work plan and deliverables should reflect all included layers and the potential interconnections between them. For projects covering more than one layer, interdisciplinary teams including partners and/or experts with different backgrounds (e.g. economy, market design, management, social sciences, technology) may be of great value for the project. It is also important that the risk assessments for the projects fully consider all layers involved in the project, not only potential technological aspects.

The Joint Call 2020 partners will 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.





# **ANNEX B - NATIONAL/REGIONAL REQUIREMENTS**

# **Austria**

| Funding agency name                                  | Austrian Research Promotion Agency (FFG)  |
|--|---|
| Programme name and                                   | Energieforschung  |
| link   | https://www.ffg.at/eranet/enerdigit   |
| Contact person                                       | Urban Peyker, urban.peyker@ffg.at, +43 5 77 55 5049   |
| Eligible applicants                                  | - Companies, SMEs.  |
|  | - Research organisations (e.g. universities and other research orgs.).  |
| Eligible costs                                       | All project related costs (e.g. Personnel, Equipment, Consumables, Training, Travels, etc.).  |
| Type of research funded                              | Applied research (Industrial research to experimental development); pre-competitive, application oriented R&D with high risk.   |
| Require separate national/ regional full application | Yes.  |
| National/regional funding available                  | € 2.000.000   |
| Further specifications                               | The amount of funding requested nationally for the project is between €100,000 and €2 million. The minimum value shall be seen as a guiding value. The ceiling of €2 million is fixed and must not be exceeded. |

**Czech Republic** 

| Funding agency name     | Technology Agency of the Czech Republic (TA CR)   |
|-------------------------|---|
| Programme name and link | THETA Programme for applied research, experimental development and innovation   |
| Contact person          | Name: Eliška Šibrová  |
|                         | Phone: +420 773 464 012   |
|                         | Email: eliska.sibrova@tacr.cz   |
| Eligible applicants     | <ol> <li>Enterprises (according to Annex 1 of the Regulation);</li> <li>Research organizations (according to Article 2 paragraph 83 of the Regulation);</li> </ol>                                      |
|                         | 3. Enterprises who act as natural persons according to Annex 1 of <a href="the-Regulation">the Regulation</a> engaged in an economic activity pursuant to Act no. 455/1991 coll. on Trades (Trade Act). |
|                         | TACR excludes the disbursement of individual aid to an enter-<br>prise:   |





|  | <ul> <li>against which a recovery order has been issued which is unpaid;</li> </ul>   |
|--|---|
|  | <ul> <li>meeting the definition of an "enterprise in difficulties"<br/>(only in Czech);</li> </ul>  |
|  | which has not met the obligation to publish the financial statements for the years 2016, 2017, 2018 in the respective register - the so-called "Veřejný rejstřík".  |
| Eligible costs                                       | <ol> <li>Personnel costs (including scholarships);</li> <li>Subcontracting costs* (max. 20% of total eligible costs throughout the whole project period);</li> <li>Other direct costs (write-offs, protection of intellectual property, operating expenses, travel costs, consumables);</li> <li>Indirect costs/overheads - full cost/flat rate 25%.</li> <li>Specific categories of eligible costs are defined under Article 17 of the General Terms &amp; Conditions (only in Czech).</li> <li>Investment costs are NOT eligible in this Joint Call.</li> </ol> |
|  | * For TA CR subcontracting represents funding of outsourced research services. Other kinds of subcontracted activities apart from research ought to be categorized under "other direct costs".  |
| Type of research funded                              | Applied research (i.e. industrial research and experimental development).   |
| Require separate national/ regional full application | Each Czech applicant participating in the Joint Call and requesting funding from TA CR must submit specific documents via TA CR data box.   |
|  | Within the same deadline as the registration of interest, Czech applicants are requested to submit a Sworn statement of the applicant.  |
|  | Consequently, within the same deadline as the full proposal, Czech applicants must submit a <i>TA CR Application Form</i> (Excel file), and, if planning to achieve the "Patent" type of results, patent search must be substantiated.  |
|  | TA CR will check following eligibility criteria at national level:  |
|  | <ul> <li>the project meets the definition of applied research;</li> <li>the aim of the project is relevant to the overall aim of the THETA programme;</li> </ul>  |
|  | <ul> <li>the research results correspond to the national rules<br/>(see below) and are applicable / exploitable;</li> </ul>   |
|  | the industrial research and experimental development share corresponds to the activities of the Czech partner described in the project proposal;  |
|  | - the applicants are eligible; - the costs are eligible;  |
|  | <ul> <li>the costs are eligible;</li> </ul>   |





|                                     | <ul> <li>the requested funding meets the national regulations for<br/>aid intensity (see below);</li> </ul>   |
|-------------------------------------|---|
|                                     | <ul> <li>the applicants have published the financial statements<br/>for the requested years.</li> </ul>   |
|                                     | For more information see <u>TA CR EnerDigit website</u> or contact TA CR's contact person.  |
| National/regional funding available | € 1 000 000   |
| Further specifications              | Supported results   |
|                                     | Projects that achieve at least one of the following types of results can be supported in this Call. The type of the result (only in Czech) has to be clearly described in the project proposal:   |
|                                     | P - Patent; G - Technically realized results - prototype, functional sample; Z - Pilot plant, proven technology; R - Software; F - Results with legal protection - utility model, industrial design; O - Miscellaneous.   |
|                                     | Funding rates   |
|                                     | The aid intensity for each Czech applicant in the project is determined based on the type of entity and type of research according to the Regulation and at the same time must not exceed the maximum permissible aid intensity for the Czech part of the project, which is 80 % of the total eligible costs. |

# Denmark

| Funding agency name     | Danish Energy Agency  |
|-------------------------|---|
| Programme name and link | Energy Technology Development and Demonstration Programme (EUDP).   |
|                         | EUDP is administrated by an independent board with a secretariat within the Danish Energy Agency.   |
|                         | https://ens.dk/en/our-responsibilities/research-<br>development/eudp  |
| Contact person          | Henrik T. Aa. Friis <a href="mailto:htaf@ens.dk">htaf@ens.dk</a> +45 33 92 77 99  |
| Eligible applicants     | Private enterprises, public institutions, knowledge institutions (government-approved research and organization institutes).  |
|                         | However, it is emphasized that the projects are industrially driven (by Danish companies) to ensure the commercial relevance, as well as bringing the technology to the market. |





| Eligible costs                                       | Danish applicants must comply with the EUDP rules which can be found in the link below (section 3):   |  |
|--|---|--|
|  | Danish version / English version  |  |
|  | It is not possible to receive funding for activities, which aim to:   |  |
|  | <ul> <li>Develop business models, market analyses, sales<br/>promotion and other commercial market activities,<br/>including distributing existing technology or involving<br/>commercial operation of facilities, etc.</li> </ul>  |  |
|  | - Expand infrastructure.  |  |
|  | <ul> <li>Carry out pre-production planning or streamlining production or control processes, etc.</li> </ul>   |  |
| Type of research funded                              | Development and demonstration of energy technologies. EUDP primarily supports projects within TRL 4-8*.   |  |
|  | *EUDP can support research activities that feed directly into development and demonstration activities.   |  |
| Require separate national/ regional full application | The independent EUDP board must approve a <u>national</u> application, which will be evaluated nationally. The national application must follow the required criteria and rules set by EUDP. The national application forms including further information must be submitted through the application portal of EUDP. |  |
| National/regional funding available                  | € 1.340.600 (DKK 10.000.000)  |  |
| Further specifications                               | We highly recommend contacting the national contact point during the preparation of the project.  |  |

# Finland

| Funding agency name                    | Business Finland  |
|--|---|
| Programme name and link                | Joint Call 2020 Digital Transformation for the energy transition (MICALL20)   |
| Contact person                         | Jarkko Piirto   |
|  | jarkko.piirto@businessfinland.fi  |
|  | Sini Uuttu  |
|  | Sini.Uuttu@businessfinland.fi   |
| Eligible applicants                    | Companies of different sizes, research centers and universities   |
| Eligible costs                         | Related to R&D and aiming at deployment   |
| Type of research funded                | R&D   |
| Require separate na-                   | Yes.  |
| tional/ regional full appli-<br>cation | For further information please see - co-innovation consortium:  |
|  | https://www.businessfinland.fi/en/for-finnish-customers/ser-vices/funding/cooperation-between-companies-and-research-organizations/co-innovation/ |





|                                     | - R&D projects of a company:  https://www.businessfinland.fi/en/for-finnish-customers/ser- vices/funding/research-and-development/  |
|-------------------------------------|---|
| National/regional funding available | Indicative 2 million euros  |
| Further specifications              | Co-innovation consortium: <a href="https://www.businessfin-land.fi/en/for-finnish-customers/services/funding/cooperation-between-companies-and-research-organizations/co-innovation/">https://www.businessfinland.fi/en/for-finnish-customers/ser-vices/funding/research-and-development/</a> |

| Germany  |  |
|--|--|
| Funding agency name                                  | Forschungszentrum Jülich GmbH  |
| Programme name and link                              | 7 <sup>th</sup> Federal Programme on Energy Research: "Research for an environmentally friendly, reliable and affordable energy supply".   |
|  | https://www.bmwi.de/Redaktion/DE/Downloads/B/bekanntmachung-<br>forschungsfoerderung-im-7-energieforschungsprogramm.html   |
| Contact person                                       | DrIng. Ralf Eickhoff, r.eickhoff@fz-juelich.de, +49 2461 61-9419   |
|  | Dr. Stephan Schulte, s.schulte@fz-juelich.de, +49 2461 61-96649  |
| Eligible applicants                                  | <ul> <li>Institutions receiving institutional funding from<br/>the federal and state governments may be<br/>subject to restrictions in the level of funding.</li> </ul>  |
|  | Companies.   |
|  | Research organisations.  |
|  | Compound projects involving at least one industrial participant are the normal composition of the project participants. In general, applications with a stronger participation of the industry from the German side will most likely be prioritized. |
| Eligible costs                                       | All project related costs (e.g. personnel, equipment, consumables, travel expenses, etc.).   |
| Type of research funded                              | Focus on applied research.   |
| Require separate national/ regional full application | Yes - but only after positive funding decision feedback. This means, the project applicants will be contacted by PTJ during the selection phase.   |
|  | National funding procedure:  |
|  | Based on the full proposal a national eligibility check including a scientific evaluation will be performed. During the national   |





|                                     | evaluation in Germany, a special focus is given on the innovation, national impact and implementation of the proposal.  In case the proposal is eligible and will be selected for funding through the ERA-NET, the German applicants will be asked to submit a formal national application in addition to the full proposal. For this application, it is mandatory to use the electronic application system "easy-online" ( <a href="https://foerderportal.bund.de/easyonline">https://foerderportal.bund.de/easyonline</a> ). |
|-------------------------------------|--|
| National/regional funding available | € 2.000.000  |
| Further specifications              | Project Management Jülich (PtJ) manages the majority of the application-oriented projects dealing with research and development in the area of power grids funded by the Federal Ministry for Economic Affairs and Energy (BMWi).  |

# India

| naia   |  |
|--|--|
| Funding agency name                                  | Department of Science and Technology (DST), Ministry of Science and Technology, Government of India  |
| Programme name and link                              | Department of Science and Technology (DST), Technology Mission Division (Energy, Water and Others)   |
|  | http://dst.gov.in/technology-mission-clean-energy-and-water  |
| Contact person                                       | Dr. Sanjay Bajpai, Head-TMD(EWO), <u>sbajpai@nic.in</u> , (011) 26590283   |
|  | / Dr. GV Raghunath Reddy, Scientist-E, raghunath.reddy@nic.in, (011) 26590604  |
| Eligible applicants                                  | Faculties/Scientists working in regular position in recognized Academic Organization /Public funded R&D Institution/ Laboratories, DSIR recognized SIRO organization (50% of project cost), Technology Buisness Incubators (TBIs). Participation of industries and industry association is also strongly recommended. However, they would be required to partner with Academia or R&D organizations. Start-ups are eligible to apply through their TBIs. |
| Eligible costs                                       | Equipment, Prototype design & fabrication, Manpower, Work to be outsourced, Consumables, National Travel, International Travel, Contingency, Miscellaneous, Overheads  |
| Type of research funded                              | Project should address solutions within Technology Readiness level 4-8. Projects such as Research and Development projects, Lab Scale Demonstration of Technology, Pilot Scale Demonstration for technology, upscaling, Prototype, etc. Activities with lower TRL levels (4-6) may be included if they contribute to the higher project goal.  |
| Require separate national/ regional full application | The applicant is required to submit a full copy (both hard & soft) of the proposal to Department of Science and Technology.  There may be requirement of online submission on DST website which will appear on December 01, 2020.  |
| National/regional funding available                  | € 1 million  |





| · | All the funded projects would be bound by guidelines stipulated by Department of Science and Technology from time to time. The detailed guidelines for this call will appear on DST website on December 01, 2020 which will supercede anything stated here. |
|---|---|
|---|---|

# Israel

| Funding agency name                                  | Ministry of Energy of Israel  |
|--|---|
| Programme name and link                              | <ul> <li>Pilot and Demonstration Support Program</li> <li>Startups Support Program</li> <li>Academic Support Program</li> <li>https://www.gov.il/he/departments/guides/rd_grants</li> </ul> |
| Contact person                                       | Gideon Friedmann – gideonf@energy.gov.il  Yael Harman – yaelh@energy.gov.il  Yael Avraham – yaelav@energy.gov.il  |
| Eligible applicants                                  | Academic Institutions, Companies, Municipalities, citizens  |
| Eligible costs                                       | All costs related to a development project, except overhead type of costs (e.g. office lease, insurance, office supplies), which are already covered as overhead. Salaries are limited.     |
| Type of research funded                              | <ul> <li>Pilot stage (TRL 5+)</li> <li>Early stage (proof of concept, prototype – TRL 2-4)</li> <li>Academic applicative research</li> </ul>  |
| Require separate national/ regional full application | Yes   |
| National/regional funding available                  | € 600.000   |
| Further specifications                               |   |

# Latvia

| Funding agency name     | VALSTS IZGLITIBAS ATTISTIBAS AGENTURA (VIAA)   |
|-------------------------|--|
| Programme name and link | Support for Participation in European Union's Research and Technology Development Programs                                 |
|                         | http://www.viaa.gov.lv/lat/zinatnes_inovacijas_progr/era_net_proj/par_era_net/   |
| Contact person          | Dr Gunta Šlihta (gunta.slihta@viaa.gov.lv; +371 67359072);   |
|                         | Dr Maija Bundule ( <u>Maija.bundule@viaa.gov.lv</u> ; +371 67785423)   |
| Eligible applicants     | Scientific institutions (registered in register of scientific institutions) and enterprises (Registered in the Register of |





|  | Enterprises of the Republic of Latvia, with at least two years of operation in Latvia)  |
|--|---|
| Eligible costs                                       | Direct costs: personnel costs, other direct costs such as consumables, equipment (only deprecation costs), materials and etc., subcontracts (up to 25% of total direct costs), travel costs, project management costs.  |
|  | Indirect costs (can reach a maximum of 25% of the total direct costs)   |
| Type of research funded                              | Fundamental research, industrial research, experimental development (Definitions in accordance with the Commission's Regulation (EC) No 651/2014 of 17 June 2014)   |
| Require separate national/ regional full application | n/a   |
| National/regional funding available                  | € 400.000   |
| Further specifications                               | The funding of RTD activities is provided pursuant in accordance with the Law of Research Activity (adopted on 14 April 2005 with amendments) and Regulation of the Council of Ministers of the Republic of Latvia No 259 on the procedure for providing support for participation in international cooperation programmes for research and technology (adopted on 26 June 2015). |
|  | Maximum of 70 00 EUR per project year can be requested by each project participant. Project duration is 24 to 36 months.  |

# Morocco

| Funding agency name                                  | IRESEN- Research Institute for Solar Energy and Renewable Energies   |
|--|--|
| Programme name and link                              | Funding Agency   |
| Contact person                                       | Zineb IDRISSI  |
|  | idrissi@iresen.org   |
|  | +212 6 63 78 10 60   |
| Eligible applicants                                  | Moroccan Universities and Research Institutes  |
|  | Moroccan Research Centres  |
|  | Moroccan private and public companies  |
| Eligible costs                                       | Project related costs, e.g personnel, equipments, instruments, consumables, travel expenses, etc   |
| Type of research funded                              | Applied Research, Industry-driven and market-oriented R&D Projects   |
| Require separate national/ regional full application | Yes, preselected candidates will have to submit their project through the IRESEN submission portal. The complete application should follow the IRESEN submission procedure |





| National/regional funding available | € 500 000  |
|-------------------------------------|--|
| Further specifications              | National Applicant must follow the required criteria and rules set by IRESEN |

**Nordic and Baltic Region** 

| Funding agency name                                  | Nordic Energy Research   |
|--|--|
| Programme name and link                              | Nordic Energy Research - Digitalisation focus area   |
| Contact person                                       | Sofia Elamson, sofia.elamson@nordicenergy.org  |
| Eligible applicants                                  | Research within public and private entities e.g.:  |
|  | - Universities   |
|  | - Research institutes  |
|  | - Companies (subject to state aid rules)   |
|  | - Municipalities   |
|  | A minimum of two Nordic and/or Baltic partners must be   |
|  | involved in a project for the project to be eligible for funding                                 |
|  | from NER. Each project may apply for up to 2MNOK in  |
|  | support. For further information, please check the Nordic  |
|  | Energy Digitalisation Programme website.   |
| Eligible costs                                       | Personnel, travel costs, consultancy, material costs, laboratory                                 |
|  | costs, equipment costs, patent, indirect costs (only academia).                                  |
| Type of research funded                              | Basic research, industrial research, experimental development.                                   |
| Require separate national/ regional full application | Yes. Please find more information on the website.  |
| National/regional funding available                  | € 600.000 (6 MNOK)   |
| Further specifications                               | We highly recommend contacting the national contact point during the preparation of the project. |

# Norway

| Funding agency name     | The Research Council of Norway  |
|-------------------------|---|
| Programme name and link | ENERGIX – Large-scale Programme for Energy Research <a href="https://www.forskningsradet.no/en/about-the-research-council/programmes/energix/">https://www.forskningsradet.no/en/about-the-research-council/programmes/energix/</a> |
| Contact person          | Khanh Tuan Le   |





|  | Email: ktl@rcn.no  |
|--|--|
|  | Tel.: (+47) 22037046   |
|  | Website: www.forskningsradet.no/en   |
| Eligible applicants                                  | Overall specification:   |
|  | https://www.forskningsradet.no/en/apply-for-funding/who-can-apply-for-funding/   |
|  | More specifically, eligibility of applicants is primarily intended to follow the same principles as for the following national calls:  |
|  | <ul> <li>Knowledge-building Project for Industry</li> <li>Innovation Project for the Industrial Sector</li> </ul>  |
| Eligible costs                                       | Overall specification:   |
|  | https://www.forskningsradet.no/en/apply-for-funding/Budget/  |
|  | More specifically, eligibility of costs is primarily intended to follow the same principles as for the following national calls:   |
|  | <ul> <li>Knowledge-building Project for Industry</li> <li>Innovation Project for the Industrial Sector</li> </ul>  |
| Type of research funded                              | Similar type and level of research as for the national calls:  |
|  | <ul> <li>Knowledge-building Project for Industry</li> </ul>  |
|  | <ul> <li>Innovation Project for the Industrial Sector</li> </ul>   |
|  | Thematic area: Energy, transport and low emissions   |
| Require separate national/ regional full application | (Additional) Submission at national level in Norway is not required. However, the submitted application must have a clear specification of budget and financing plan for the Norwegian sub-project. Budget and financing plan must be broken down with details for all Norwegian partners. |
| National/regional funding available                  | € 0,5 million (NOK 5 million)  |
| Further specifications                               | The application must be relevant for the ENERGIX research programme and the Norwegian national strategy Energi21 <a href="https://www.energi21.no/en/">https://www.energi21.no/en/</a> .   |

# **Poland**

| Funding agency name     | National Centre for Research and Development (NCBR)  |
|-------------------------|--|
| Programme name and link | ERA-Net ENERDIGIT (1st Call) <a href="https://www.ncbr.gov.pl/programy/programy-miedzynarodowe/wspolpraca-wielostronna/inicjatywy-typu-era-net/era-net/technology/era-net-enerdigit-era-net-ses/1-konkurs/">https://www.ncbr.gov.pl/programy/programy-miedzynarodowe/wspolpraca-wielostronna/inicjatywy-typu-era-net/era-net/technology/era-net-enerdigit-era-net-ses/1-konkurs/</a> |
| Contact person          | Jolanta Drożdż, jolanta.drozdz@ncbr.gov.pl, +48 22 39 07 106   |
| Eligible applicants     | <ul> <li>Enterprises: micro, small, medium or large</li> <li>Groups of entities [consisting of:         <ul> <li>min. one research organisation (within the meaning of art. 7 section 1 point 1, 2, 4-6 and 8 of The Act of 20</li> </ul> </li> </ul>  |





|  | 1   | 8 on Higher Education a<br>al of Laws 2020 item 85                            | • •  |
|--|---|---|--|
|  | - min. on   | e enterprise (micro, sm   | all, medium or large)]   |
|  | other activity or firmed by an ent  | n the territory of the R  | es business, R&D or any epublic of Poland, consister, and assure a suffict of public funds.                |
|  | state in the appl   | ication form: the numbe<br>opropriate register and t                          | ongly recommended to<br>r of the organisation/en-<br>he size of the enterprise                             |
|  | plicant in the C  | all for proposals is its to sion of the application uding, at least condition | oup of entities as the Ap-<br>formal existence on the<br>form, confirmed by its<br>nally, agreement on the |
| Eligible costs                                       | 3. Other co<br>- travel c<br>- costs o<br>- purcha  | subcontracting(E) sts (Op) including: costs,                                  |  |
| Type of research funded                              | - Industria   | l research  |  |
|  | - Experime  | ental development   |  |
|  | <b>7</b> ·  | tivities (e.g. coordination to the included into separate                     | •  |
| Require separate national/ regional full application | Yes, after select   | tion of projects to be fur  | nded.  |
| Funding available                                    | € 600.000   |   |  |
| Further specifications                               | After international evaluation of full proposals and the selection of projects to be funded, Polish participants will be invited to submit a National Application Form (NAF). The NAFs will be examined for the appropriateness of funding requested. |   |  |
|  | The Polish participants are obliged to use the rate of exchange of the European Central Bank dated on the day of opening of the call.  Types of research funded including the maximum state aid intensity for enterprises:                            |   |  |
|  |   |   |  |
|  | Tune of A.  | Type of rese  | earch funded   |
|  | Type of Applicant   | Industrial research   | Experimental development   |
|  | Micro/Small enterprise  | 50+20+15 (max<br><b>80%)</b>  | 25+20+15 (max 60%)   |





| Medium en-<br>terprise  | 50+10+15 <b>(max</b><br><b>75%)</b> | 25+10+15 (max <b>50%)</b>                                    |
|---|-------------------------------------|--|
| Large enter-<br>prise   | 50+15 <b>(max 65%)</b>              | 25+15 <b>(max 40%)</b>                                       |
| All proposals mu  | ust be aligned with natio           | onal regulations.  |
| Detailed information about scope, financial rules, national procedure and national regulations is available on the NCBR's homepage: |                                     |  |
| miedzynarodow   |                                     | amy-<br>nna/inicjatywy-typu-era-<br>t-era-net-ses/1-konkurs/ |

# Romania

| Romania                 | T   |
|-------------------------|---|
| Funding agency name     | Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI)  |
|                         | www.uefiscdi.gov.ro   |
| Programme name and link | P3 – European and International Cooperation   |
| Contact person          | Elena Simion<br>+4021.307.19.93   |
|                         | elena.simion@uefiscdi.ro  |
| Eligible applicants     | Legal entities established in Romania are eligible to get funding, i.e. public and private accredited universities, national R&D institutes, other research organizations, SMEs, large industrial enterprises with R&D activity within their domains. We can fund only Romanian research teams. For universities, public institutions, R&D national institutions funding is 100%, and for SMEs and Large companies, financing is under the permit NASR Decision no 9281/8.13.2015 approving the scheme of State aid for Program 3: European and international cooperation.  |
| Eligible costs          | The following categories of expenses are eligible:  A. Staff costs (researchers, technicians and support staff, including all corresponding state and social contributions; these contributions are subject to national regulations in force);  B. Consumables (materials, supplies or similar);  C. Equipments (in full compliance with state aid regulations), no more than 30% of the total funding from the public budget;  D. Subcontracting (max. 25% of the total funding from the public budget);  E. Travel expenses (in Romania or abroad, only for project teams' members);  F. Overheads (calculated as a percentage of direct costs: staff costs, travel expenses and logistics costs - excluding capital costs).  Indirect costs will not exceed 20% of direct costs, excluding subcontracting.  Expenses are eligible if incurred after signature of the contract. |





|  | Subcontracting of special tasks (i.e. IT services, etc): Yes, expenditure on services performed by third parties cannot exceed 25 % of the funding from the public budget. The subcontracted parts should not be core/substantial parts of the project work.   |
|--|--|
| Type of research funded                              | UEFISCDI will fund mainly applied research projects implemented by research organisations and/or SMEs, according to the European State Aid legislation. The projects will be funded through the National Plan for Research, Development and Innovation III (PNIII), Programme 3 – European and Interantional Cooperation, Subprogramme 3.2 – Horizon 2020, ERA-NET / ERA-NET Cofund. |
| Require separate national/ regional full application | No official paperwork and/or supporting information are requested by UEFISCDI before the submission deadline.  |
| National/regional funding available                  | € 500.000  *The maximum funding for one project from the public budget is 250.000 Euro if Romania is the coordinator of the transnational project.   |
| Further specifications                               | Applicants have to consult and respect the <u>guideline</u> according to the National Plan for Research, Development and Innovation 2015-2020, for ERA-NET Cofund projects.  |

# Scotland

| Funding agency name     | Scottish Enterprise  |
|-------------------------|--|
| Programme name and link | This is a bespoke call and not part of a national funding programme.   |
| Contact person          | Karen Fraser; karen.fraser@scotent.co.uk; +44 141 468 5658   |
| Eligible applicants     | Companies - SMEs (EU definition) and large enterprises, Universities and research organisations operating in the Scottish Enterprise area. Universities / research organisations are only eligible if there are at least two companies in the consortium, with at least one of these being Scottish based and undertaking R&D in the Scottish Enterprise area. The total eligible costs of the Scottish Universities / research organisations must be less than the total costs of the Scottish companies. Limit of one Scottish University / research organisation per project. |
| Eligible costs          | Project specific costs including salary costs (including pension and NI contributions, capped at £60,000 salary); overheads; depreciated equipment; consumables (including materials); subcontracting (including trials and testing, consultancy, dissemination); accountant's certificates for claims (SMEs only); Intellectual Property costs (SMEs only).   |
| Type of research funded | Industrial research / experimental development (EU state aid definition) aimed at the creation of new products, processes or services and achieving business growth.   |





| Require separate national/ regional full application | Yes, at full proposal stage.  |
|--|---|
| National/regional funding available                  | €2,000,000  |
| Further specifications                               | The maximum grant rate is expected to be 25% for large companies, 35% for SMEs, 50-100% for research organisations, subject to Scottish Enterprise policy and EU state aid rules. Please refer to detailed guidance available from <a href="mailto:karen.fraser@scotent.co.uk">karen.fraser@scotent.co.uk</a> |

Spain

| Funding agency name     | CDTI   |  |
|-------------------------|--|--|
| Programme name and link | http://www.cdti.es/index.asp?MP=101&MS=831&MN=2  |  |
| Contact person          | Marina Sopeña  |  |
|                         | marina.sopena@cdti.es; eranets@cdti.es   |  |
|                         | Tel. (+34) 91 581 56 07 / 04 89  |  |
| Eligible applicants     | For-profit enterprises (being Large companies or SME), established and carrying out RTDI activities in Spain.  |  |
|                         | Other entities such as Universities, Public Research Institutions, Technological Centres, and other non-profit private institutions could participate under subcontracting by Spanish companies (subcontracting cannot exceed the 50% of the national project budget).   |  |
| Eligible costs          | <ul> <li>Personnel costs, to the extent employed on the research<br/>project. International project management expenses can be<br/>included, with a maximum of 58 hours (approximately<br/>0,4PM) dedication for each month of the project.</li> </ul>   |  |
|                         | <ul> <li>Instrument and equipment costs, to the extent and during<br/>the period in which they are used for the project.</li> </ul>  |  |
|                         | <ul> <li>Contractual research costs, technical knowledge and patents bought or licensed from outside sources at market prices, as well as costs of consulting services intended exclusively for the research project.</li> </ul>   |  |
|                         | - Other costs (operating expenses) including materials, supplies and similar products, exclusively used for the research project. Here it can be included: • Audit costs for the national reporting of the project (when applicable), maximum limit of 2.000€ per beneficiary and year. • Travel expenses related directly to the implementation of the project, maximum limit of 8.000€ during the duration of the project. |  |
|                         | - Additional general expenses (indirect costs, as a percentage of personnel costs).  |  |





| Type of research funded                              | Technology-based activities within industrial research and/or experimental development projects (in accordance with the definitions of the General Block Exemption Regulation, EC Regulation nº651/2014) representing outstanding scientific-technical quality and high innovative potential.  The Spanish part of the proposed work plan must be developed in Spain.  Please note that non-technological activities, particularly those related to business models/processes, are excluded for CDTI funding.   |
|--|---|
| Require separate national/ regional full application | Each Spanish company participating in a transnational application and requesting funding from CDTI must submit a formal application by way of CDTI electronic submission system (https://sede.cdti.gob.es).  CDTI's application consists of a complete administrative form and a technical report in Spanish which must include a detailed description of the activities to be undertaken by the company and the respective budget (please check the sections Type of research funded and Eligible costs). Applicants must indicate their VAT (CIF) number in all their respective applications (both international and national).  It is extremely important to check the dates and the conditions at CDTI Webpage or contacting the NCP. If a Spanish company does not submit the national application by the deadline, it will not be considered for funding.  CDTI will check the following eligibility criteria at national level:  Applicants must be for-profit and solvent companies established in Spain.  Projects will consiste of technology-based activities within industrial research and/or experimental development projects.  Project duration: 12- 36 months.  Projects should be transnational by nature, therefore, each country/ region will be responsible for no more than 70% of the total budget project costs. |
| National/regional funding available                  | € 800.000   |
| Further specifications                               | - CDTI funding will be based on grants, which will be calculated as a percentage of the eligible costs, up to a maximum aid intensity of 60 % for small enterprises, 50 % for medium enterprises and 40% for large enterprises, according to the General Block Exemption Regulation (EC Regulation nº651/2014).   |
|  | <ul> <li>Specific financial conditions for ensuring the beneficiary's<br/>solvency could be required according to CDTI funding rules.</li> </ul>  |





| <ul> <li>CDTI will avoid double funding, and will not finance projects,<br/>or parts of projects, which have been already, funded<br/>through other national, transnational or EU calls.</li> </ul>  |
|--|
| <ul> <li>CDTI will be responsible for making the final decision regarding the awarding of funds, taking fully into account the transnational evaluation of the collaborative project, the previous funds received by the participants for other related projects, the fulfilment of eligibility and funding rules, and the financial resources available.</li> </ul> |
| <ul> <li>Applicants are strongly advised to check the detailed information available on CDTI website and to contact the NCP for getting advice about national funding rules before submitting a proposal.</li> </ul>   |
| Please check the complete National Funding Rules on:<br>"Financiación nacional de los proyectos ERA-NET - Convocato-<br>rias nacionales de Subvenciones (SERA)"  |
| For further information, please contact the NCP or visit CDTI website: <a href="https://www.cdti.es/">https://www.cdti.es/</a>   |

# Sweden

| Funding agency name | Swedish Energy Agency (SWEA)   |
|---------------------|--|
| Programme name and  | National Energy Research and Innovation programme.   |
| link                | http://www.energimyndigheten.se/utlysningar/   |
| Contact person      | Fredrik Lundström, fredrik.lundstrom@energimyndigheten.se  |
|                     | Tel. +46 (0) 16 544 21 12  |
|                     | Carolina Ahlqvist, Carolina.ahlqvist@energimyndigheten.se,   |
|                     | Tel. +46 (0) 16 542 06 04  |
| Eligible applicants | Public and private entities e.g.:  |
|                     | <ul> <li>Universities</li> </ul>   |
|                     | Research institutes  |
|                     | Companies  |
|                     | Municipalities   |
|                     | Decisions on funding research, development and innovation in the energy area are taken according to the ordinance SFS 2008:761 in the Swedish Code of Statues. <a href="https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2008761-om-statligt-stod-till_sfs-2008-761">https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2008761-om-statligt-stod-till_sfs-2008-761</a> |
| Eligible costs      | Personnel costs, travel costs, consultancy, material costs, laboratory costs, equipment costs, patent, indirect costs (only academia and research institutes).  http://www.energimyndigheten.se/globalassets/utlysningar/anvisningar-for-  |





| Type of research funded                              | Industrial research and experimental development. Basic research could also be supported if overall project scope is relevant to the call text.   |
|--|---|
| Require separate national/ regional full application | Yes, find more information in the National call text and instructions at the Swedish Energy Agency webpage: <a href="http://www.energimyndigheten.se/utlysningar/">http://www.energimyndigheten.se/utlysningar/</a> |
| National/regional funding available                  | € 2.000.000   |
| Further specifications                               | Make sure to read the <u>national call text</u> with more detailed instructions and requirements before submitting an application.  |

# **Switzerland**

| Funding agency name     | Federal Department of the Environment, Transport, Energy and Communications DETEC – Swiss Federal Office of Energy SFOE  |
|-------------------------|--|
| Programme name and link | R&D: SFOE Research & Development P&D: SFOE Pilot & Demonstration Program   |
| Contact person          | Dr Michael Moser, +41 58 465 36 23, michael.moser@bfe.ad-min.ch  |
| Eligible applicants     | Universities (including ETH-domain), universities of applied science, further research organizations and the private sector in Switzerland.  |
|                         | The participation of young scientists in the research teams is encouraged.   |
| Eligible costs          | R&D: Researchers in the public and private sector can apply for personnel costs and expenses according to the SFOE rates. Wherever possible and reasonable, the participation of commercial and industrial partners – in particular utilities (DSO, TSO, ESP) and small and medium-sized enterprises (SME) – is strongly recommended to ensure the relevance of the research to technological development and to the needs of society. An adequate share of own and third-party contributions (in-kind and/or cash) is expected.   |
|                         | P&D: Funding of Swiss participants is limited to 40% (in exceptional cases 60%) of the eligible project costs. Eligible projects costs cover only the additional project costs that cannot be amortized over the expected lifetime of the developed installation or solution. Additional projects costs are defined as the additional project costs when compared to the costs of implementing an equivalent, conventional technology or solution.   |
| Type of research funded | R&D: Application-oriented technical (TRL 2-5), socio-economic, or interdisciplinary research projects should explore ideas relevant to industry or energy policy with a high potential for significant scientific or technical impacts. Their focus is outlined by the <a href="Federal Energy Research Masterplan">Federal Energy Research Masterplan</a> , the <a href="Energy Research Digitalization">Energy Research Concept of the SFOE</a> , and the <a digitalization"="" href="dialog ">dialog "Digitalization</a> in the <a <="" a="" href="Energy Sector">.</a> |





|  | P&D: Innovative pilot and demonstration projects (TRL 5-7) may cover any energy relevant aspects of digitalization.  |
|--|--|
| Require separate national/ regional full application | Yes, applicants must submit a national full proposal by the same date. The official application forms have to be used and sent to:   |
|  | R&D: michael.moser@bfe.admin.ch P&D: pilot_demo@bfe.admin.ch   |
|  | National full proposals must fulfil the national minimum eligibility criteria. If they do not, or if the applicants did not submit a national full proposal in time, the project will not be fundable.                           |
| National/regional funding available                  | € 2.500.000  |
|  | Any contract shall be subject to the approval of annual credit facilities by the Swiss Parliament.   |
| Further specifications                               | The funded Swiss partner may use and commercialize the project results. In return, the project results will be made publicly available by SFOE. SFOE disclaims the IPRs. The subsidy recipients can utilize the project results. |
|  | Applicants must comply with the conditions set out in the Directive on the submission and evaluation of applications for financial support of energy research, pilot and demonstration projects                                  |
|  | Direct communication with the national contact person at SFOE is strictly required prior to the submission of the full proposal.   |

Turkev

| i ui key                |  |
|-------------------------|--|
| Funding agency name     | The Scientific and Technological Research Council of Turkey (TUBITAK)  |
| Programme name and link | 1071 Programme - Support Programme for Increasing Capacity to Benefit from International Research Funds and Participation in International R&D Cooperation |
| Contact person          | Mr. Cagri YILDIRIM   |
| Eligible applicants     | Calls are open for public institutions and private companies of all sizes as well as for universities and research institutes in Turkey.                   |
| Eligible costs          | Personnel cost   |
|                         | Travel costs   |
|                         | Expenditures for Consumables   |
|                         | • Expenditures for instruments, equipment that would be used for R&D purposes  |
|                         | • Expenditures for subcontracting and other services need for R&D work   |
| Type of research funded | Basic research, applied research, experimental development   |





| Require separate national/ regional full application | Yes. Eligible participants can be funded via TUBITAK 1071 Programme. The national rules and the procedure for application will be available on TUBITAK website |                      |                                    |                                      |
|--|--|----------------------|------------------------------------|--------------------------------------|
| National/regional funding available                  | € 650.000  |                      |                                    |                                      |
| Further specifications                               | Funding Rates  Type of activity/organisation   | Large<br>Enterprises | Small and<br>Medium<br>Enterprises | Universities and Research Institutes |
|  | ERANET Enerdigit   | %60                  | %75                                | %100                                 |



# ANNEX C – KEY PROVISIONS OF THE GENERAL EU/EEA FRAMEWORK FOR STATE AID AND ELIGIBLE COSTS

Normally, only the following costs can be claimed as **eligible costs** for co-fund from the European commission<sup>10</sup> (national rules prevail when they are stricter – see <u>Annex B</u>). Please, always check with your national/regional funding agency to receive precise information regarding prevailing rules.

The eligible costs of research and development projects shall be allocated to a specific category of research and development and shall be the following<sup>11</sup>:

- (a) personnel costs: researchers, technicians and other supporting staff to the extent employed on the project.
- (b) costs of instruments and equipment to the extent and for the period used for the project. Where such instruments and equipment are not used for their full life for the project, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible.
- (c) Costs for of buildings and land, to the extent and for the duration period used for the project. With regard to buildings, only the depreciation costs corresponding to the life of the project, as calculated on the basis of generally accepted accounting principles are considered as eligible. For land, costs of commercial transfer or actually incurred capital costs are eligible.
- (d) costs of contractual research, knowledge and patents bought or licensed from outside sources at arm's length conditions, as well as costs of consultancy and equivalent services used exclusively for the project.
- (e) additional overheads and other operating expenses, including costs of materials, supplies and similar products, incurred directly as a result of the project.

'Aid intensity' means the gross aid amount expressed as a percentage of the eligible costs, before any deduction of tax or other charge and normally should be limited<sup>12</sup>. Without prejudice to further restrictions which may be imposed by the participating countries/regions<sup>13</sup> the maximum aid intensity that can be claimed is:

- 40% of the eligible costs for large companies; 50% for Medium-sized companies; 60% small enterprises<sup>14</sup> in case of **experimental development** (TRL 5-8).
- 65 % of the eligible costs for large companies; 75% medium-sized enterprise; 80% small enterprises in case of *industrial research* (TRL 3-4)

This maximum amount is conditional on the project involving effective collaboration:

 $<sup>^{10}</sup>$  Unless de minimis aid rules would apply: <u>http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\_.2013.352.01.0001.01.ENG</u>

<sup>&</sup>lt;sup>11</sup> See R&I aid rules in the General Block Exemption Regulation <a href="http://eur-lex.europa.eu/eli/reg/2014/651/oj/eng">http://eur-lex.europa.eu/eli/reg/2014/651/oj/eng</a>

<sup>&</sup>lt;sup>12</sup> Unless de minimis aid rules would apply: <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L">http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L</a> .2013.352.01.0001.01.ENG

<sup>&</sup>lt;sup>13</sup> For EU/ EEA MS - to be reflected in the national measures adopted and communicated on the basis of the General Block Exemption Regulation <a href="http://eur-lex.europa.eu/eli/reg/2014/651/oj/eng">http://eur-lex.europa.eu/eli/reg/2014/651/oj/eng</a>

<sup>&</sup>lt;sup>14</sup> See definition of SMES at http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition en





- between undertakings among which at least one is an SME, or is carried out in the context of cross-border co-operation (including at least 2 EU/EEA Member States<sup>15</sup>) and no single undertaking bears more than 70 % of the eligible costs, or
- between an undertaking and one or more research and knowledge-dissemination organisations, where the latter bear at least 10 % of the eligible costs and have the right to publish their own research results

Otherwise 15 percentage points reduction should be applied.

Education and research organisations may receive support at least at the same level as companies. Unless national rules are stricter, higher level of support (going up to 100%), may be applicable only if a legal/economic situation of a specific organisation justifies it<sup>16</sup>.

The consortia will have to explain in their bids how relevant limitations will be observed. This is without prejudice to the responsibility of EU/EEA Member States authorities to ensure detailed verification of compliance with EU/EEA State aid rules.

<sup>&</sup>lt;sup>15</sup> and at least one of the two being EU Member State

<sup>-</sup>

<sup>&</sup>lt;sup>16</sup> e.g. research organisations in situation where conditions of point 20 of R&I aid framework would be satisfied (<a href="http://ec.europa.eu/competition/state\_aid/modernisation/rdi\_framework\_en.pdf">http://ec.europa.eu/competition/state\_aid/modernisation/rdi\_framework\_en.pdf</a>); or in cases de minimis aid rules would apply: <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=urisery:OJ.L...2013.352.01.0001.01.ENG">http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=urisery:OJ.L....2013.352.01.0001.01.ENG</a>





# **ANNEX D - EVALUATION CRITERIA**

| Evaluation criteria   |           |  |
|---|-----------|--|
| Scores $0 - 5$ ( $0 = \text{Fail/Missing}$ ; $1 = \text{Poor}$ ; $2 = \text{Fair}$ ; $3 = \text{Good}$ ; $4 = \text{Very good}$ ; $5 = \text{Excellent}$ )  |           |  |
| (a) Excellence  |           |  |
| 1. Relevance to the call  |           |  |
| - Proposed piloting, validation and demonstration fit the call aim  |           |  |
| - Proposed project is clearly based on a specific need, involving (a) specific "need-owner(s)" or clearly demonstrates engagement with relevant stakeholder   | Score 0-5 |  |
| 2. Degree of innovation and innovative content  |           |  |
| - Project represents something genuinely innovative and/or is a significant improvement on current knowledge and expertise, including a clear description of the range of innovation (i.e. is it innovation on a local/international/worldwide scale) and type of innovation (such as process innovation, product innovation etc.)  | Score 0-5 |  |
| - Feasibility of innovation and innovative content as a whole   |           |  |
| <ul> <li>3. State-of-the-art, link and contribution to past and ongoing, relevant international initiatives in digitalisation of energy systems and networks</li> <li>Clear description of state-of-the-art within the project's field.</li> <li>Clear positioning of the project in relation to the described state-of-the-art and description of how the project builds on relevant international initiatives, knowledge and systematics</li> </ul>   | Score 0-5 |  |
| <ul> <li>4. Working methods and models         <ul> <li>Excellence in collaboration:</li> <li>Approaches and methods for collaboration are clearly defined, enabling relevant stakeholders to participate in co-creation of solutions. Considerations on how the execution of the project will be performed with minimal climate impact are included</li> <li>IPRs described and handled appropriately (licenses, patents etc.).</li> <li>Gender and diversity equality and perspectives are considered and implemented, both within the project group and in the development of solutions</li> </ul> </li> <li>Coverage of three-layer research model:         <ul> <li>More than one layer covered</li> <li>Concrete methodological approach to the three-layer model (if only a single layer project, the reasons for this must be clearly explained and justified).</li> <li>Specific adoption/market challenges related to technology development are addressed</li> <li>Theories and methods behind social or market assumptions are relevant and clearly explained.</li> </ul> </li> </ul> | Score 0-5 |  |





If market/social research or interventions are to be performed the methodologies should identify which kind of data to collect, how to collect it, and how to analyse it.

| (b) Impact  |           |  |  |
|---|-----------|--|--|
| 1. Expected impacts   |           |  |  |
| - Expected impacts are feasible and desirable, and include consideration of societal, environmental and sustainability impacts  | Score 0-5 |  |  |
| - Short-term and long-term impacts contribute to the call's aim   |           |  |  |
| - Implementation contributes to the expected impacts  |           |  |  |
| 2. Scaling-up, reproducibility, replicability and interoperability potential  |           |  |  |
| - High scaling-up potential.  | Score 0-5 |  |  |
| - High reproducibility/replicability potential.   |           |  |  |
| - High interoperability potential.  |           |  |  |
| 3. Transnational value  |           |  |  |
| - Added value of the project being transnational (as opposed to being only  |           |  |  |
| national) - Benefits and relevance of the project internationally and contribution to fulfilling international sustainable energy initiatives' objectives   | Score 0-5 |  |  |
| 4. Appropriateness of measures for dissemination and exploitation of  |           |  |  |
| results   |           |  |  |
| - Target audience identified, clearly stating why they are important for the project and how they will be involved  |           |  |  |
| - Suggested communication activities appropriate and related with identified stakeholders   | Score 0-5 |  |  |
| - Means of dissemination and exploitation of results  |           |  |  |
| (c) Quality and efficiency of the implementation  |           |  |  |
| Quality and relevant experience of project team   |           |  |  |
| - Experience, specific expert experience (CVs)  |           |  |  |
| - Relevant interdisciplinary experience (complimentary expertise)   | Score 0-5 |  |  |
| <ul> <li>Beneficial team composition (national/regional and competence diversity –<br/>skills shall match the working areas identified in the project. Gender and<br/>diversity measures should also be considered in the team composition.)</li> </ul> |           |  |  |
| 2. Appropriateness of the management structure and resource allocation  |           |  |  |
| - Management structure (roles) clearly defined and appropriate  | Caara O E |  |  |
| - Manageability of consortium (number of partners, key players etc.)  | Score 0-5 |  |  |
| <ul> <li>Resources are allocated suitably depending on specific expert competencies</li> <li>Work plan, implementation, feasibility and manageability</li> </ul>  |           |  |  |
| - Detailed, clear and logical work/implementation plan  |           |  |  |
| - Feasibility of deliverables and milestones with clearly defined KPIs  | Score 0-5 |  |  |
| - Project delivers results efficiently in relation to the project budget  |           |  |  |
| -Project has considered climate impact minimizations in the implementation  |           |  |  |





| 4. Risk identification, analysis and preventive measures  |           |
|---|-----------|
| - Risks appropriately identified, including a mitigation strategy for loss of project partners (if applicable)                                |           |
| - Risk analysis is clear, coherent and logical. It should be applied to the work packages and the investigation approach used in the projects | Score 0-5 |
| - Preventive/remedial measures are proposed, and measures seem feasible and valid   |           |
| Total maximum score sum   | 60        |

**Please note!** Projects that achieve a total score of less than 30 points by the expert evaluation panel or a score of 0 on relevance to the call ((a) Excellence, section 1) will not be forwarded to the selection phase by the experts.





# **ANNEX E - TECHNOLOGY READINESS LEVELS**

The following definitions apply to TRLs:

- TRL 1 basic principles observed.
- TRL 2 technology concept formulated.
- TRL 3 experimental proof of concept.
- TRL 4 technology validated in lab.
- TRL 5 technology validated in relevant environment.
- TRL 6 technology demonstrated in relevant environment.
- TRL 7 system prototype demonstration in operational environment.
- TRL 8 system complete and qualified.
- TRL 9 actual system proven in operational environment.



# ANNEX F - KNOWLEDGE COMMUNITY STANDARD WORK PACKAGE

### **Knowledge Community Standard Work Package**

Please insert the tasks below into your overall Work Plan as appropriate, and allocate the resources needed in the project budget (see budgeting estimation below). Task 1 and 2 are organised by the ERA-Net SES Knowledge Community Management in cooperation with the funded projects. Task 3 will be organised by the Joint Call 2020 funding partners with involvement of the ERA-Net SES Knowledge Community Management. Knowledge Community events will take place virtually whenever feasible. However, in case of physical events, ERA-Net SES encourages you to consider train options if feasible and/or other ways to avoid climate impact!

#### Task 1. Involvement in formative evaluation

#### Task 1.1 - Profiling

 Participate in an online survey per year on project experiences and deliverables related to topics of the Knowledge Community. The Project will answer about 25 questions about scope, targets and results of the projects in an online tool according to an "evaluation and profiling"-manual that will be handed out to the projects at their start.

#### Task 1.2 -Feedback

- Receive written feedback and consider recommendations of evaluators.
- Review results of survey, partly in face-to-face or virtual meetings with the evaluating experts.
- Participate in the annual 2-day Knowledge Community joint project event including a feedback meeting with experts and key project members (can partially be a *virtual meeting*).

Task 1 resource requirement estimation: 15 – 20 days/year/project.

#### Task 2. Crosscutting Knowledge Community activities

# **Task 2.1 – Working Groups**

- Participate in, prepare for and follow-up the following 6 working groups in physical and web-based meetings:
  - System Architecture & Modelling
  - Regulatory & Market Development
  - Consumer & Citizen Involvement
  - Storage and Cross Energy Solutions
  - Interoperability & Standardisation
  - Regional Matters

For every working group, projects are expected to participate in a minimum of 1 physical and 2 virtual working group meetings per year).





### Task 2.2 - Living documents

 Work with the knowledge sharing platform expera, mainly contributing to the development of living documents (related to the topics of the abovementioned working groups), spotlights and policy briefs. Consortium members will contribute own and other project results, e.g. clarify conclusions, give feedback, provide examples etc.

### Task 2.3 – Cooperation on communication and dissemination activities

- Participate in teleconferences and workshops to detect synergies between the projects, and support and improve (joint) communication and dissemination activities.
- Participate in a minimum of 1 joint project presentation activity organized by Knowledge Community.

Task 2 resource requirement estimation: 25 – 40 days/year/project.

# Task 3. Deliverables to the joint call initiative (in addition to national/regional funding agency requirements, if applicable).

- Task 3.1 Annual reporting (in 2022, 2023 and 2024 depending)
- Task 3.2 Final reporting (2023-2024, depending on project end date)
- Task 3.3 Annual project event
- Task 3.4 Final joint call event
- Task 3.5 Abstract of the main results

Task 3 resource requirement estimation: 15 days/year/project.

### Budgeting of resources for the abovementioned tasks

The exact amount of resources to be committed depends on the project length, size, consortium composition and specific project focus. The final organisation and execution of the abovementioned tasks will be the result of an iterative process between the Knowledge Community Management and each funded project as applicable. The estimated resources required for Task 1, 2 and 3 are:

- i. 50 70 days/year/project.
- ii. €7 000 €10 000/year/project for travel, accommodation and related expenses.

The advised minimum total resource allocation is €70 000 regardless of project duration.





# **ERA-Net SES & MI funding partners**

























































































