



Concept Note
(Sept 2017)

Partnership of European Regions on Sustainable Buildings

Opportunities for economic, social, environmental and territorial
development linked to energy efficiency in buildings

growth
leadership
new markets
regional
opportunities
development
environmental sustainability
accessible
energy

1. Background	2
2. Scope and objective of the partnership	3
3. Keys elements of the Partnership.....	4
4. Focus on the value chain	6
5. Preferential reference themes	6
6. Role of the institutions. Regional leadership	8
7. Structure of Governance.....	9
8. Partnership process	11
9. Partnership tools.....	12
10. Next steps	13

1. Background

The building sector is the largest energy consumer in Europe, representing 40% of the total EU consumption (in terms of final energy) and 36% of CO₂ emissions, according to statistical information from the European Commission¹. In addition, as is the case in many EU countries, many of these buildings have been built before energy standards were enforced and, therefore, have no criteria relating to energy saving and efficiency, and in these cases over 70% of energy savings could be achieved. Also, many of these houses belong to low-income citizens, who have great difficulties to energetically improve their homes.

Despite the efforts made to improve the energy efficiency of the sector, embodied in a wide range of European directives that affect energy use in buildings, such as Directive 2010/31/EU, on the energy performance of buildings, Directive 2012/27/EU, on energy efficiency, or Directive 2010/30/EU, on the indication of energy consumption (...) and other resources by energy-related products, it is still necessary to continue to take decisive steps in the same direction.

In this line, the European Commission launches in 2015 the European Platform for Smart Energy Specialisation (S3PEnergy)², with the aim of supporting regions in the optimal uptake of the Cohesion Policy funds for Energy and support energy innovation at all levels and their alignment with EU priorities.

Within the framework of this Platform, the European Commission is promoting the creation of various partnerships at European level as a basis for promoting interregional collaboration on issues of special interest in energy matters that favour

1 Eurostat, European Commission. Final energy consumption, EU-28, 2013.

2 <http://s3platform.jrc.ec.europa.eu/s3p-energy>

the development of innovative projects, such as the energy efficiency of buildings. The implementation of these partnerships will undoubtedly help to fulfill the main objectives of the Europe 2020 strategy, and in particular those related to energy.

In this sense, on 28th July 2016 the Andalusian Energy Agency submitted a document with the basic proposal for the creation of a Partnership of European Regions on Sustainable Buildings to the DG Regio. This document included the objectives and added value of interregional collaboration in this area, as well as the proposed working methodology and the actions to be developed.

The proposal was presented and discussed together with other regions in different working sessions within the framework of the European Week of Regions and Cities last October 2016³.

This Summary Report gathers the main aspects of the proposal presented, in reference to the scope and objective of the Partnership, as well as the key elements and approach to be considered in its development, after incorporating all the contributions received after the referral of the document and its presentation in Brussels, with special emphasis on a specific proposal to be developed, based on the expectations of Andalusia, which will serve as a starting point to attract the interest of other European regions.

2. Scope and objective of the partnership

The Partnership of European Regions on Sustainable Buildings is conceived as a strategic alliance between European regions to boost new markets and take advantage of regional opportunities for smart specialisation in sustainable buildings.

This interregional collaboration between public and/or private entities within the Partnership, aims **to improve the energy efficiency of buildings in Europe, through promoting the development of efficient and innovative solutions** throughout the value chain, associated to energy saving and the use of renewable energy in buildings.

One of the key elements discussed in the working sessions above-mentioned was the need to delimit more clearly the scope and objective of the partnership, given the broad scope of possible actions to be developed in the field of sustainable construction, in order to concentrate on the actions to be developed. For this,

- In the context of this Partnership, energy efficiency in buildings will be understood in an integral sense, that is, considering not only the **energy**

³ More information:

<http://s3platform.jrc.ec.europa.eu/-/smart-specialisation-in-energy-innovation-tendencies-in-european-regions?inheritRedirect=true>

<https://webcast.ec.europa.eu/european-week-of-regions-and-cities-2016-0d-13-10#> - Time: 10:10:37

efficiency of equipment and installations, but also innovations in new materials, components and construction solutions that minimise the energy consumption during manufacture, assembly and operation, as well as **new services** that facilitate in the deployment of these solutions.

- It should focus on those solutions that seek the **maximum environmental protection and the quality of life of people**, with special attention to the design of low cost solutions aimed at the **most disadvantaged groups**.
- The actions to be carried out in the partnership should also seek the **consolidation of a business network and the generation of new business and employment opportunities** aimed at creating value around energy efficiency and the implementation of renewable energy in buildings.
- **Summing up, the Partnership will be focused on the more effective deployment, upscale and market uptake of technologies in the field of sustainable construction.**

All of the above will contribute to taking advantage of new opportunities for economic development, environmental improvement, and social and territorial cohesion.

3. Keys elements of the Partnership

Commitment

Promoted by the European Commission, the Partnership will seek the institutional adhesion of the participating regions that have the energy improvement of buildings as a common priority. The commitment of the regional Administrations should be based on institutional leadership that allows the channeling of this initiative among the most relevant actors at regional level. More details on the role of regions in the Partnership in section 5.

Collaboration

The Partnership will promote interregional collaboration aimed at mobilising the capacities of the different regional actors participating in innovative and energetically sustainable initiatives related to energy saving and the use of renewable energy in buildings, complementing missing assets and taking advantage of synergies between regions. For this, the **identification of regional competitive advantages**, based on a better understanding of the **competences and industrial capacities** of each region in this field, as well as the enhancement of the means to take advantage of these competitive advantages in an environment of interregional collaboration, are key in this process.

Governance

A structured and participative governance has been defined, articulated through large reference themes and particular topics (defined further on this report in section 5), interregional working groups and pilot and demonstrative projects, seeking the active participation of all relevant actors in each field. More details on the governance structure in section 7.

Smart specialisation

Promotion of concrete collaboration pilot and demonstrative projects will be promoted that allow a greater specialisation of the regions and the opening, development or consolidation of new markets and opportunities of regional development.

Added Value

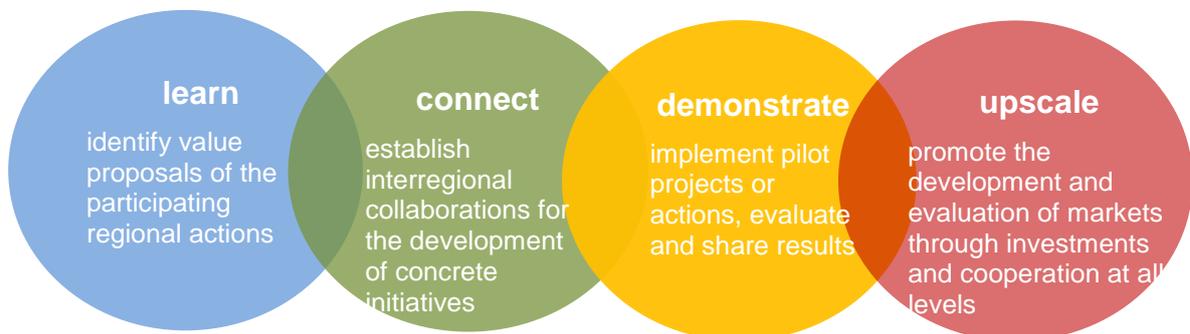
The generation of value must be the driving force of the initiatives, aimed at the search for competitive and comparative advantages for participating entities and the humanisation of experiences. For this, the actions of the partnership must allow in the short/medium term the implementation of **specific projects that allow the development of products and services aimed at creating value for customers**, that is, they must respond to satisfy some of their needs or expectations, which can range from the most basic to the newest or most innovative that meet design conditions, performance, price, etc.

Integration

Of all the agents of the value chain, including potential clients, with a complete vision that ranges from raw material or the design of the business models until the post-sale services. **Mechanisms should be established in the Partnership to allow for a greater and more effective integration of the actors that participate in the partnership** (manufacturers, research centres, engineers and consultants, builders, control companies, insurers, managers of waste or buildings and owners) to enhance the impacts sought. For more details on the mechanisms proposed see section 9.

Open innovation

The Partnership will promote the development of efficient and innovative solutions in the field of energy efficiency of buildings through the collaboration between public and private entities of different European regions, including research and technological organisations, interested in learning, connecting, demonstrating and upscaling new products or services in the field of sustainable construction, based on a joint mapping of capacities and resources available in the participating regions. More details on the actions to be developed in each of the phases in section 10.



4. Focus on the value chain

In order to identify the areas or activities that will affect the different regions, either by contributing competitive advantages to their companies, or by satisfying social or territorial needs, it is proposed to use an evolved value chain concept, such as the trajectory that is followed from the arrival of the raw material until the acquisition by the consumer and the associated services, for each of the selected reference themes and topics identified in the next section.

5. Preferential reference themes

The actions of the partnership must be solidly embedded in the **implementation strategies for smart specialisation (RIS3) of the different regions that integrate it.**

In the case of Andalusia, research, technological development and innovative systems **for high energy efficiency installations in the building and energy rehabilitation of buildings, as well as new energy efficient construction materials and bioclimatic designs of buildings,** constitute priorities and lines of action within the RIS3. In this sense, Andalusia has a wide experience in these areas, with a high volume of specialised companies with experience in the research and development of new materials, such as multifunctional, ceramic or micronised marble.

Together with the RIS3, the regional commitment for the promotion of sustainable construction is reflected in the Development Plan for the Sustainable Construction and Rehabilitation Sector in Andalusia, Horizon 2020, approved by the Governing Council in January 2015. With an initial budget of 529.2 million euros until 2020, the Development Plan aims to relaunch activity and employment in the construction sector, favoring its transition from the current construction model to a more sustainable one, in economic, social and environmental terms. **The Plan includes up to 90 lines of action in the different areas of sustainable construction.**

Likewise, the Energy Strategy for Andalusia 2020, approved by the Andalusian Governing Council in October 2015, specifically defines in the sustainable building and urban development sector a series of action lines whose aim is to provoke a change of behaviour in the Andalusian society regarding the use of energy and buildings and urbanised areas, promoting actions that lead to greater savings and energy efficiency together with the use of renewable energies, with particular attention to the public scope in which it foresees the implementation of projects to improve energy efficiency and the incorporation of renewable energy in the buildings of the Andalusian Regional Government.

Following the logic of intervention, and in coherence with the previous planning instruments, the possible actions to be proposed by Andalusia should take into consideration the investment priorities defined in the Regional Operational Programme of Andalusia included in the thematic objective 4 and developed through the Incentive Scheme for the Sustainable Energy Development of Andalusia.

For all of the above, the proposal of concrete projects made from Andalusia to be developed in a framework of interregional collaboration will be the following preferential reference themes and specific topics:

1. Eco Construction, Bioclimatism and thermal insulation

Projects to **replace energy-inefficient and potentially polluting materials** with new materials, efficient and autochthonous and with low carbon footprint, in complete solutions with high performance in relation to thermal insulation. Development of innovative measures for the passive conditioning of buildings through new non-conventional building solutions and new construction elements. The development of autochthonous materials in the participating partnership regions will be promoted, but now also equipped with new features and innovative manufacturing methods that improve energy and constructive efficiency. In the case of Andalusia, materials derived from ceramics, cork, wood and stone, as well as hybrid materials, composites and multi-layer panels, are particularly important.

For example, in the case of Andalusia, the replacement of asbestos in energy rehabilitation measures by other more energy efficient and less polluting materials, as mentioned previously, will be promoted. We will also work on the use of new solutions for the light prefabrication of low-cost housing applicable to emergency situations, and energy rehabilitation projects that include the renovation of windows or glazed openings combined with the provision of insulation material in the enclosures. Andalusia, like other southern regions, has great experience and specialised companies in carpentry renovation, although these types of energy improvements are not usually integrated into major renovations.

Following specific topics are considered:

- Topic 1: New materials with low carbon footprint
- Topic 2: Innovative constructive processes: light prefabrication of low-cost housing, advanced manufacturing for new construction elements
- Topic 3: Bioclimatic solutions based on plant elements (in roofs, facades etc.)

2. Renewable integration in buildings

Projects that promote the development of **innovative solutions related to the generation of renewable energies in the building area**, linked to hybridisation in energy production, the use of new materials, self-consumption and energy storage. Architectural integration of these elements will be sought. Particular attention will be given to solutions with a low cost approach aimed at the domestic area.

For example, in the case of Andalusia, the solutions will be aimed at **satisfying the demands of air conditioning**. In particular, combined projects of isolated or grid-connected photovoltaic systems for the generation of electricity used to power small air-conditioning installations (high-energy heat pump) or cooling systems (refrigeration chambers) and energy storage systems, will be promoted.

Following specific topics are considered:

- Topic 1: Climatisation with renewable energies
- Topic 2: Self-consumption and energy storage
- Topic 3: Low cost solutions aimed at vulnerable groups

3. Systems and equipment of maximum energy efficiency (lighting, air conditioning etc.)

The development of innovative solutions that allow the **incorporation of equipment and installations of high energy performance** that optimise the use of energy for climatisation, lighting, hot water, cooling or other uses, and that adapt to different types of users (including people with low resources), such as evaporative cooling, LED lighting, microgeneration, or energy management and regulation systems. Special attention will be given to the design of highly energy-efficient equipment and systems that can be integrated into heating and cooling systems.

Innovative solutions through high systems of high energy efficiency that allow putting in value tourist spaces, as well as buildings or places that form part of the historical, artistic or cultural heritage, will also be promoted. Specifically, innovative solutions associated with lighting projects of buildings, including equipment for energy optimisation, will be promoted. These solutions will be of great interest to regions in which, as Andalusia, the tourist sector is strategic for its economy and there is a great potential for development in the historical heritage.

Following specific topics are considered:

- Topic 1: Innovative solutions of high energy efficiency: evaporative cooling, LED lighting, microcogeneration....
- Topic 2: Smart energy management systems and IoT
- Topic 3: Advanced solutions for energy rehabilitation of historical heritage buildings

6. Role of the institutions. Regional leadership

Regional Administrations will play a key role in the development of the Partnership in its different stages, from the initial configuration that begins with its adherence to the Partnership, to the implementation of various initiatives of business cooperation and the development of new investment projects. According to the above-mentioned, the institutional leadership of the regions will be specified in the following points:

1. Adhesion

Selecting reference themes and working groups of interest for regional development.

2. Identification

Developing the mapping of capacities and resources available in the region, and identifying synergies and relevant actors in the different fields, interested in the Partnership. All the regions that form part of the Partnership must encourage and channel the direct participation of other regional actors in the working groups or in the different events that are organised.

3. Dissemination

Communicating the different initiatives to facilitate the capture of participants, dissemination of the results of the projects and development of regional opportunities.

4. Dynamization

Developing accompanying actions to take advantage of the synergies detected and which will result in the development of the region.

5. Evaluation

Monitoring the impact of the actions in the framework of interregional collaboration.

6. Planning

Deployment or reorientation of regional strategies in order to boost the positive effects of the identified markets and stimulate or accelerate their development and impact in the territory.

7. Structure of Governance

A flexible and participative structure is designed to identify and materialise opportunities for interregional collaboration, which responds to this purpose, including a scope of Coordination and Promotion (top down approach), which includes the Steering Committee and the Interregional Working Groups, with the support of the European Commission and the Member States themselves, and which in turn draws on the regional opportunities that, coordinated through their regional representatives (top up approach), are proposed as areas for collaboration.

It is very important to highlight that the Partnership is open to actors of different nature, in particular the following:

- Regional public representatives with competence in the field.
- Representative leading companies of the construction sector.
- Clusters / representative business associations of the sector.
- Research centres, technology centres and universities.
- End users of energy solutions.
- Local level regional representative entities.

European scope and coordination

Steering Committee

Composed of the region that lead and co-lead the Partnership (Andalusia, Spain and Észak-Alföld, Hungary), the regions that lead the different working groups, one for theme of reference, and the European Commission. It promotes the Partnership and opens collaboration proposals at the request of regions, which fit into the topic and themes of reference. Assumes the dialogue with the European Commission and other entities at European level, and will meet every three months.

Interregional working groups

A working group will be created for each one of the reference themes (Eco construction, renewable energy integration in buildings and systems of maximum energy efficiency use in buildings and cities), integrated by all the regions interested in the theme and led by one of these regions. It will be in charge of coordinating, boosting and supporting the development of the different topics and collaboration offers proposed in their theme of reference. Participation in these working groups can be carried out by representatives of the regional government or by entities in which they delegate.

Supporting entities

The European Commission, as the Joint Research Centre JRC itself, or by Member States of the participating regions.

top down

bottom

up

Regional scope

Institutions of the regional Administration

The regional leadership, either direct or through other entities, which are initiated with their adhesion to the Partnership, include the identification of the relevant actors, dissemination, dynamisation, coordination, evaluation and planning in their territory.

Dialogue will be carried out in each of the working groups and with the Steering Committee.

Users of energy solutions

Companies, entities or representatives of companies or users and consumers of the different participating regions, interested in interregional collaboration to boost projects or innovative initiatives that result in a more efficient use of energy in buildings and cities, as well as a better quality of life of people.

Regional representative entities

Specialised or representative of business sectors, which fit into the corresponding lines of action. Also includes local entities interested in interregional collaboration for greater local sustainable energy development.

Regional companies

Suppliers of goods and services

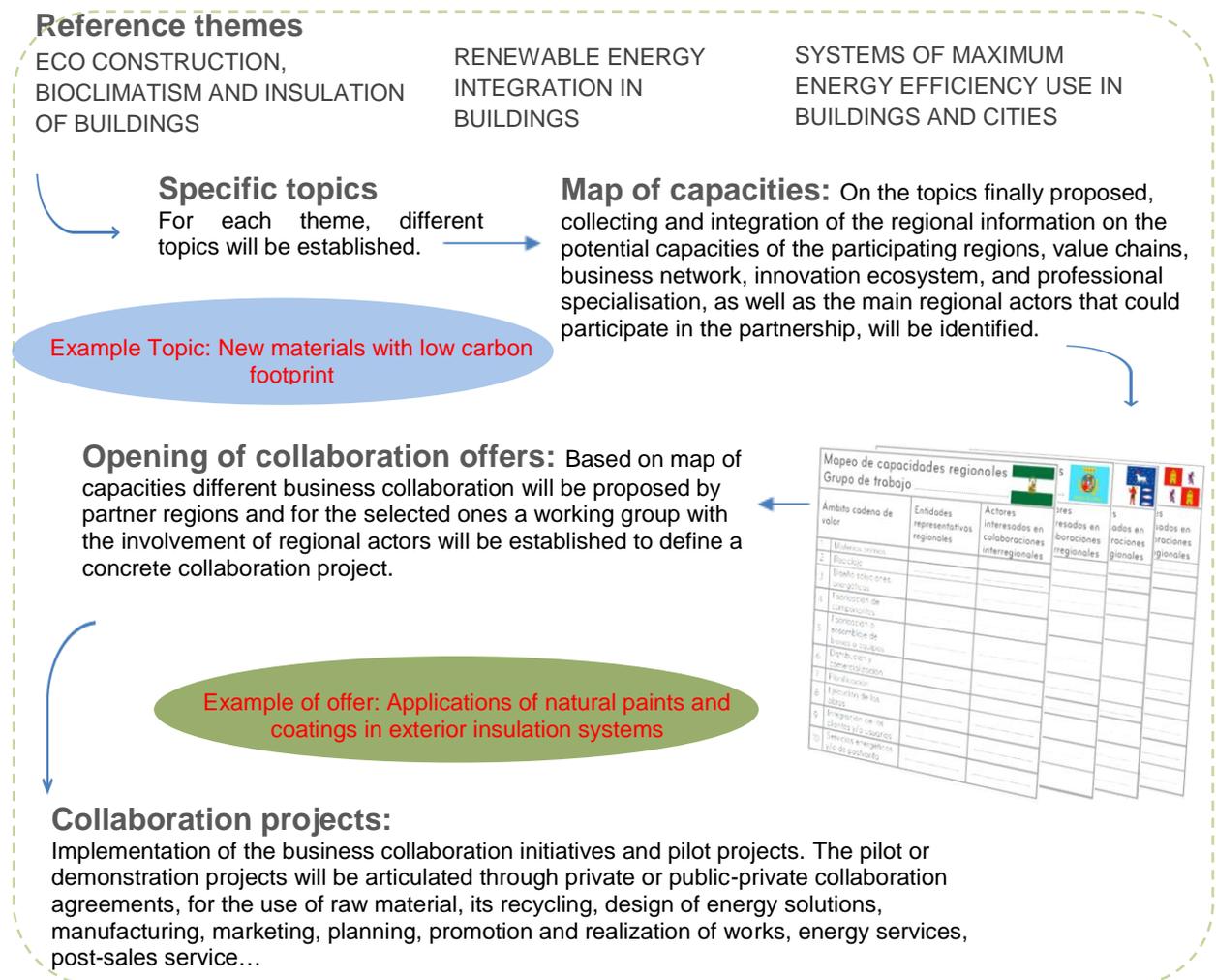
throughout the whole value chain of the actions that are object of the collaboration.

Research and Technological Organisations

Leading organisations in the field of technological development related to sustainable building.

8. Partnership process

The process proposed by the Partnership is very simple: starting from the reference themes and their particular topics, a series of collaboration proposals will be defined by regions. For each one of the collaboration proposals, concrete interregional opportunities for the development of pilot or investment projects will be specified. The following chart shows the process to be followed by the Partnership.



9. Partnership tools

To facilitate the achievement of the objectives of the Partnership it will be necessary to establish adequate **communication and dissemination channels** that allow taking advantage of the capacity of value creation of the Partnership, favoring the connection between offer and demand and between the different regional actors. For the above-mentioned, the development of three elements is foreseen:

1. Web – collaborative platform

The Platform is conferred as a virtual meeting point, with the aim of promoting interaction and exchange between different regions, minimising the availability required for face-to-face meetings.

To do this, the Platform will support the activities of the Partnership, structured for each reference theme and line of action, aimed at identifying and materialising opportunities for collaboration, funding, evaluation and dissemination, with the ultimate goal of boosting regional development of Sustainable Construction markets.

Among other functions, the Platform will allow at least:

- The identification of the participating regions and the terms of their adherence to the Partnership
- The identification of regional stakeholders and the access to relevant information about them
- The incorporation of information of general interest for all the regions of the Partnership: documents, events
- The identification of Interregional Working Groups, lines of action and offers for collaboration with relevant information about them
- The internal organisation of the Interregional Working Groups and lines of action: repository of reports, celebration of forums, calendar of events
- ...
- The identification of the main programmes, European initiatives and other sources of funding related to the Partnership
- Dissemination of best practices, projects implemented, and results achieved.



2. Meetings

Annual kick-off events and “match making event”, as well as “peer to peer” activities among actors of different regions.

3. Market place

Virtual meeting space for offer and demand as a means to boost the development of the markets in those action lines in which sufficient critical mass is achieved.

10. Next steps

The following are the steps to follow for the formation of the Partnership and the development of the activities:

Initial phase. Configuration of the Partnership. The actions in this phase focus mainly on the creation of the organisational structure and the development of the tools that support the Partnership and the integration of all the actors in these structures. Therefore, the actions to be developed in this phase are:

1. **Identification of European regions interested in joining the Partnership and signing of the adhesion agreements.** At present there are almost 50 regions that have considered sustainable construction and energy efficiency in

buildings as priorities in their regional strategies for smart specialisation. They are, therefore, regions potentially interested in joining the partnership.

The adhesion of a region to the Partnership will be formalised through the signing of an institutional agreement that includes the political commitment of the region and names the entity that will assume the regional representation.

2. **Definition of the reference themes and interregional working groups.** The participating regions will be able to: 1) make contributions in relation to the reference themes proposed in section 5 (identification of new reference themes, proposals of concrete projects within a line ...), and 2) specify participation in working groups either as a leader region or as an interested region.
3. **Creation of the management bodies of the Partnership:** Steering Committee, interregional working groups and regional working groups as described in section 7.
4. **Identification of new members at European level and related initiatives** (e.g. networks, associations, clusters, programmes, projects, platforms) and establishing a protocol for its adhesion to the Partnership.
5. **Elaboration of the Web – collaborative platform** that allows the development of the actions of the Partnership.

This phase will conclude with a **Kick-off meeting** with the participation of all the regions that form part of the Partnership, for the presentation of the objectives, the activities to be carried out and the expected results.

Phase 1. Learn. The actions in this phase will be aimed at collecting information from the participating regions that will facilitate the identification of concrete strategies of interregional collaboration and potential projects to be developed. The proposed actions will therefore be:

6. **Identification of priority areas (specific topics) within each reference theme.**
7. **Elaboration of a map of capacities of the participating regions.** On the priority areas finally proposed, collecting and integration of the regional information on the potential capacities of the participating regions, value chains, business network, innovation ecosystem, and professional specialisation, as well as the main regional actors that could participate in the partnership will be identified.

The Steering Committee, with the support of the JRC, will propose a working methodology that will include the elaboration of a **questionnaire with the information to be collected, including business collaboration proposals**, that must be completed by all participating regions. This information will be completed with the information from external sources.

8. **Analysis of the information collected and identification of the complementarities and synergies between regions, as well as possible business collaboration proposals and demonstration projects to be developed.**

9. **Selection of a few collaboration proposals. Creation of working groups and involvement of regional actors in the selected collaboration proposals, in particular, regional representatives, cluster and RTO representatives.**

Phase 2. Connect. The objective of the actions in this phase is the identification of opportunities of interregional collaboration. For this, the following actions will be carried out:

10. **Identification of concrete action lines and pilot projects.** Each working group will propose different lines of action that will count on the participation of all regional actors involved and will conclude with the identification of potential interregional collaboration projects.
11. **Integration of the Partnership in European initiatives** identified in the previous phases in order to build operational collaborations.
12. **Matchmaking event.** Once the projects have been defined and on the basis of the regional capacity map, different events will be organised that will allow the different regional actors to work together in order to advance in the concretion of the projects and in the real possibilities of interregional collaboration.
13. **Search for funding for proposed projects.**

Phase 3. Demonstrate. During this third phase, various business cooperation initiatives will be implemented, as well as various pilot projects to facilitate the deployment of new solutions, with special attention to innovative solutions and projects aimed at vulnerable groups. For this, the actions to be carried out will be:

14. **Presentation of project proposals to the Commission** for their assessment and identification of possible sources of funding.
15. **Implementation of the business cooperation initiatives and pilot projects.**
16. **Monitoring and evaluation** (indicators) of the results derived from the cooperation initiatives or joint pilot projects
17. **Elaboration of a strategy of dissemination** results (including evidence for regional policies)

Phase 4. Upscale. Starting from the results of the initiatives implemented in the previous phase, the deployment of joint real investments and the establishment of industrial cooperation on a larger scale.

18. **For each joint initiative, business plans will be defined:** cost estimation, identification of available funds, exploration of financing possibilities, design of joint investment projects (e.g. joint calls) that integrate several sources of funding and address common themes.
19. **Tools will be designed to facilitate the deployment** of real joint investments (based on the evidence of pilot projects).
20. **Tools will be designed to facilitate the stimulation of industrial cooperation** on a larger scale. The strategic commitment of the private sector will be sought for its participation in projects.

21. Monitoring and evaluation of the results (regional growth, economic and social indicators)

Some considerations regarding the proposed phases:

- All actions proposed both in the Initial Phase as well as in Phases 1 and 2 are aimed at facilitating the identification of possible interregional collaboration initiatives. However, the identification of such initiatives will be promoted from the outset, accelerating their implementation as much as possible.

For them, except for the Initial Phase and for some of the actions of Phases 1 and 2 for which a fixed timetable could be proposed, the rest of the actions will depend on the evolution of the Partnership, even being able to overlap in the time development of different phases. That is, it is possible that before the finalisation of the map of capacities of a region, concrete initiatives of business collaboration can already be proposed and developed.

- A key element of the Partnership will be the provision of the necessary resources for the implementation of the planned actions, both for the development of the previous studies that are considered necessary, the implementation of the communication channels of the partnership, support for the coordination of its members, or participation in other European networks and platforms, as well as the investments to be carried out in the development of specific projects.

For this, it will be necessary to identify the most suitable European programmes for the activities foreseen, as well as to delimit the support that can be received directly from the Commission through JRC or other experts.

- The results obtained in the different phases of the Partnership will be presented in the main events at European level, namely:
 - European Union Sustainable Energy Week EUSEW
 - European Week of Regions and Cities
 - Conferences of the Smart Specialisation Platform