

S3 ENERGY PARTNERSHIPS' INNOVATION CAMP 2017

FINAL REPORT

11-12 OCTOBER 2017 EIT HOUSE, BRUSSELS



ENERGY INNOVATION CAMP FINAL REPORT

COORDINATION



Joint Research Centre

European Commission - JRC Seville Territorial Development Unit Ed. Expo. C/. Inca Garcilaso 3 41092 Seville (Spain) Tel. +34 95 448 82 50 Fax. 95 448 83 26

Inmaculada Perianez-Forte Inmaculada.PERIANEZ-FORTE[AT]ec.europa.eu

METHODOLOGICAL DESIGN AND FACILITATION



FUTOUR | Nomadic Innovation Viale Antonio Gramsci, 19 | 56125 Pisa | Italy Tel. +39 340 5927047 @: paolo.martinez[AT]futour.it <u>www.futour.it</u> Twitter: @FUTOUR Workshop photo album <u>www.flickr.com/photos/ideai/sets/</u>



EDUCORE @: hankkune[AT]educore.nl <u>www.educore.nl</u>

Develop2



Develop2 @: pschimmelpennink[AT]hotmail.com

NetWork Agency @: jonas.klevhag[AT]thenetworkagency.se









Table of contents

Abstract	4
ntroduction	4
The organisation of the S3PEnergy Innovation Camp	5
The Challenges for the Interregional Energy Partnerships	6
From challenges to prototypes and impact	6
Vethodological feedback	8
General recommendations and follow-up suggestions for Challenge Owners	10
Annexes	12
Annex A: Programme of the S3 Energy Partnerships' Innovation Camp 2017	12
Annex B: Participants to the S3PEnergy Partnerships' Innovation Camp	14
Annex C: Challenge descriptions	20
Sustainable Buildings Challenge	20
Solar Challenge	23
Bioenergy Challenge	25
Annex D: Contents of emerging prototypes	29
Sustainable Building Challenges emerging prototypes	29
Solar Challenge Emerging Prototypes	37
Bioenergy Challenge emerging prototypes	48
Annex E: Images and photo album from the workshop	57
Annex F: FUTOUR	60









Abstract

The report summarises the main process that led to the identification of the challenges, the preparation and running of the Smart Specialisation Platform on Energy (S3PEnergy) Innovation Camp that was held in Brussels on the 11-12th of October 2017. It describes the steps leading to its organisation, encloses the results from the participants, methodological reflections and insights on possible next steps for the participating challenge owners and regions.

The application of the Innovation Camp methodology has fostered the Entrepreneurial Discovery Process of the Smart Specialisation Strategy by enhancing the communication, vision and strategy of the Interregional energy partnerships and by kicking off a process of stronger collaborative innovation between them.

Introduction

The JRC and the Smart Specialisation Thematic Platform on Energy (S3PEnergy), in collaboration with Committee of the Regions and EIT, organised an Innovation Camp on the 11th and 12th of October 2017 in at the EIT house in Brussels during the European Week of Regions and Cities.

The event was oriented to provide joint response to pre-identified challenges that the S3 Energy interregional partnerships are currently facing relating to the implementation and scaling up of socio-technical solutions stemming from research and innovation in the fields of solar energy, bioenergy and sustainable buildings. Each thematic group addressed mainly one non-technological issue that was cross-cutting for all the partnerships.

The challenges included **the engagement of civil society in interregional actions**, the creation of **innovative financial instruments for transnational commercial-scale demonstration projects**, and the **attractiveness of buildings rehabilitation investments for all the parties involved** (including private users and banks, public sector, academia...).

Being a non-traditional and highly interactive event, this innovation camp was carried out as a co-creative process, based on interaction among diverse stakeholders, to deal with the pre-identified challenges (See the programme in Annex A). Each team was guided by a professional facilitator and involved 53 key stakeholders from ten countries that brought diverse perspectives to the co-creation process (See the participants in Annex B). Within the Innovation Camp participants explored and reframed the challenges, defined potential implementation activities and plans for experimenting and piloting them in the near future. On the second day, participants presented their ideas, solutions or prototypes. The best ideas will be picked up by the challenge owners and followed up together with the idea developers.

Policy makers from the three involved interregional partnerships (bioenergy, solar, sustainable buildings) actively participated, as well as academics, researchers, experts and associations. The event involved also other European Commission services (DGs REGIO, ENER, JRC, GROW and EASME) that joined these interactive sessions of the Innovation Camp aiming at contributing to the progress of smart specialisation implementation via interregional cooperation.





5

FUT●UЯ







The organisation of the S3PEnergy Innovation Camp

Innovation camps are an instrument for addressing societal challenges in an open innovation context. They are based on a *process* that provides a concrete template to decision-makers and societal actors for developing breakthrough ideas and new insights, combined with an entrepreneurial discovery process with a variety of stakeholders (public, private, academic and civil society – i.e. the so-called *quadruple helix* approach).

The main objective of the Energy Innovation Camp - and therefore in the identification of the relative challenges to be addressed - was that of helping the challenge owners identify challenges that can have a wide positive and interregional social, environmental and economic impact in view of the high level event (to be held in Brussels, on the 25th of January 2018)¹ where all interregional partnerships intend to bring their proposals.

Holding and preparing an Innovation Camp is completely different from launching a conference or seminar as the process requires a strong engagement and interaction from all participants, from the core organisers and conveners to the individual participants. At the same time while frontal, top-down classical conferences and seminars have a one to many, generally top-down, classroom style communication that has the effect of informing and transferring know-how to the participants the focus of a co-creative session is that the knowledge, ideas and actions are generated and implemented by the participants. A co-creative process engineers and harnesses the time, intelligence, motivation and questions of the participants to address common questions, challenges and issues that do not yet have an answer and this can have a tremendous impact on mobilizing innovative, enterprising energies forward to enhance, for instance, the Smart Specialisation Strategies.

The main actors that have been involved in this complex and purposeful organisational task have been:

- 1) the staff of the JRC that had the function of applying the Innovation Camp method and facilitation to the Entrepreneurial Discovery Process (EDP) within the Interregional Smart Specialisation Platform on Energy.
- 2) The S3 energy partnership lead regions for each thematic energy topic and, through them, all the other regions involved in each partnership.
- 3) The facilitating team that has been mentoring, coaching, training, providing guidelines on the process and supporting the overall organization and facilitation of the Innovation Camp.

The JRC and S3 energy partnership lead regions (challenge owners) are responsible for the content, technical and political definition and shaping of the challenges in all the steps of the Innovation Camp: from the inception to the follow-up. The role of the facilitators is to manage the process, facilitate the innovation camp, ensure that there is a good communication, interaction and capacity to let new ideas and prototypes emerge from the diverse stakeholders and expertise that participate to the Innovation Camp. The facilitators can advise on the process and method. The technical, political and strategic content of the challenge should be based on the JRC assessment of the potential of the partnership members and also on what can be drivers that align their "energy" and passion.

¹ More information will follow. Please visit the S3PEnergy website for further information.









The innovation camps process includes three steps:

- Step 1: Before the camp, identification of the thematic challenges to be analysed at the camp, selection of challenge owners and defining the challenges with them, choice of stakeholders and experts who can contribute to address the challenges;
- Step 2: Carrying out the actual innovation camp;
- Step 3: After the camp, the *follow-through* continues at locations where issues occur. During subsequent months, prototypes of promising ideas are tested and improved and can be built up on by the respective organisations with the networking contributions of the camp participants.

The Challenges for the Interregional Energy Partnerships

From challenges to prototypes and impact

The interregional S3 energy partnerships have gone through several iterations in the identification of common challenge. In an initial phase the challenges were described in some cases with a more technical focus but in general the challenges that emerged had a transversal, non-technological dimension addressing such issues as citizen engagement to overcome the resistance to innovative energy solutions, multi-stakeholder governance, financial and legal issues relating to the scaling up of pilot innovative solutions and ways to address societal challenges such as energy poverty. The final version of the challenge definition for each challenge group may be seen in **Annex C: Challenge descriptions**.

- 1. <u>Sustainable buildings</u>: developing feasible & collaborative projects (engaging citizens, enterprises & private banks). The challenge is related to the practical issues of how to build thematic open innovation ecosystems at regional and European level, where all the actors involved in a retrofitting process (public sector, enterprises, academia and the citizens) can find the adequate stimulus to implement energy efficiency measures in the European building stock. The challenge is to develop common schemes for financing energy rehabilitation of buildings in the European regions, promoting at the same the interregional collaboration to widen the scope of the interventions. How to get all parties engaged, what kind of online engagement platforms should be used, what kinds of governance must be applied, what kind of new indicators and processes can be taken into action?
- 2. <u>Solar Energy</u>: Innovative interregional financial instruments for commercial-scale demonstration projects (e.g. FOAK projects) in the field of renewable Energy. This initial challenge was of a financial nature. The challenge addresses a complicated and complex problem, how to legally structure the desired Solar Partnership. We must analyse the financial viability to carry through this project (searching for investors in the public or private sector) and clear the legal terms and regulations that will allow this project to move forward.
- 3. <u>Bioenergy</u>: Integration of civil society in transnational and regional S3 implementation. Foster the parts to accept the outcome of a multi dialogue and permitting process if they consider the procedure to be transparent, useful, participatory and fair: i.e. conflict management through early stakeholder engagement. Helping citizens and public opinion see the bigger picture of a strategic collaborative energy choice involving more countries.









The results that emerged from the camp reflect the level of preparation of the different partnerships and this can be seen from the initial prototypes that were presented by the participant in the final session. Each group followed coherently the template that was provided by the facilitators describing both the objectives of the emerging prototypes and the next steps and commitments that were taken by the participants.

The S3 Energy Partnership Challenges, within the Innovation Camp identified specific prototypes for interregional actions:

- Sustainable Buildings
 - ENGAGE CITIZENS THAT CAN AFFORD TO PAY REGIONS AS FACILITATOR FOR MARKET UPTAKE OF THE ENERGY EFFICIENCY MEASURES
 - IMPROVING SUSTAINABILITY OF PUBLIC BUILDINGS THROUGH (GREEN) PUBLIC PROCUREMENT –
 IMPLEMENTATION OF SUSTAINABLE PUBLIC BUILDINGS COMPETENCIES BY DEMONSTRATING THE POWER OF
 OPEN DATA MANAGEMENT
 - MAXIMIZING SOCIAL BENEFITS OF SUSTAINABLE BUILDINGS FOR VULNERABLE GROUPS
- Solar Energy
 - INNOVATIVE INTERREGIONAL FINANCIAL INSTRUMENTS FOR COMMERCIAL-SCALE DEMONSTRATION PROJECTS (FOAK) IN THE FIELD OF RENEWABLE ENERGY.
- Bioenergy
 - ENGAGE STAKEHOLDER TO ALLOW THE IMPLEMENTATION AND FUNDING OF BIOENERGY PROJECTS
 - INTERREG PROJECT IDEA: APPROVE BIOENERGY: ADVANCING PUBLIC PARTICIPATION AND STAKEHOLDER ENGAGEMENT FOR THE IMPROVEMENT OF BIOENERGY POLICIES IN CENTRAL EUROPE REGIONS

The detailed prototypes of each challenge group may be seen in **Annex D: Contents of emerging prototypes** based on the Innovation Camp template reports filled in by participants, that have been subsequently integrated by the rapporteurs from IDEA Consult, the external consultants supporting the development of the Energy S3 Partnerships.











Methodological feedback

The overall feedback of the facilitators is that the camp was effective in achieving its main objective of creating the conditions to strengthen the co-creative interregional collaboration within and among the interregional partnerships. It was both a team building exercise and a powerful opportunity to explore the challenges to identify common solutions and future plans, prototypes and projects. It was the first time the Innovation Camp method was applied to interregional partnerships dealing with common thematic issues (i.e. Energy) and the Innovation Camp process also increased the sense of ownership and purpose of the S3 Energy partnerships while demonstrating that with good preparation and in a relatively short time, with the support of a facilitated process helping the communication and focus of all stakeholders, important shared results can be achieved.

As part of the after-action review of the Innovation Camp we describe possible lessons learnt to reflect on between all the parties involved in the preparation and running of the Innovation Camp. These initial insights can be further integrated by the JRC and challenge owners to further improve the process and method.

Preparation.

- The preparation is the basis of the success of an Innovation Camp.
 - Extensive Webex meetings provided a base for mutual understanding of the Camp concept among the main stakeholders and most of the Challenge Owners.
 - $\circ~$ JRC took the lead in recruiting and informing participants, and in organizing local logistics (venues, catering, etc.).
 - All guidelines relating to the Innovation Camp preparation and guiding principles have been introduced to the JRC coordinating team and the challenge owners, including the importance of identifying strong challenges, a dedicated challenge owner for each challenge, ensuring the diversity of participants to cover as many possible stakeholders of the quadruple helix.
 - \circ $\;$ There was good team work and collaboration between the facilitators and JRC team.
 - The Camp Manager (Paolo Martinez) took the lead in reviewing and improving the Challenge descriptions and in being a bridge between all JRC team members to address any emerging organizational and methodological aspect.
- Defining the challenges was not easy even if there was a clear need for a stronger definition of a strategy among the partnerships.
 - Issue of meta level ownership: thee levels of ownership: JRC, coordinating partnership regions and regions in the partnership. This is feasible if the partnerships have already a clear purpose, mission and vision. This was not evidently the case as there was not such a strong ability to involve more regions within the partnerships. What level of collaboration and ability to codesign strategies had they reached before the Innovation Camp?
 - The definition of the challenges, a crucial step to also identify the participants, took much time and was the result of a negotiation between the challenge owners and JRC. This led to a weaker ownership of the challenges with challenges that were in some cases not so clear or strong enough to identify the target participants and invite them. On the other hand, the experience showed that the Solar energy group's challenge was not the ideal one for the interregional and open nature of this Energy Innovation Camp as the prototype and project's idea was perhaps already in a high level of definition.











- The challenge owners, partnerships' lead regions, and members worked on a voluntary basis and in most cases there seemed to be no resources for interregional collaboration. There was interest and will to collaborate but at the same time, perhaps not enough internal support from the challenge owner organisations and partnership members to feel the ownership of the challenge.
- The Innovation Camp is different from most other projects or events as all stakeholders, starting from the organisers, need to play a role and in particular, while facilitators can own the process and method, the objectives, content and challenge definition depends from the challenge owners and organisers.
- IDEA created two well elaborated summaries and one action plan based on the individual action plan reports provided by the facilitators.
- Most people and especially experts are used to finding solutions as soon as possible. The nature of the Innovation Camp, as a learning space where ideas emerge through a generative dialogue requires the acceptance that there can be phases when one may feel lost in apparent chaos. This feeling is a key factor for the success of the camp and was stated by the camp manager and facilitator both in the preparatory phases and during the camp but it should be re-stated even with more emphasis in each step of the camp.

Participants.

- Participants from 10 different countries took part in the Camp. Most participants came from Spain, followed by Finland. More heterogeneous participation is recommended.
- In general, the diversity and spread in culture, age, sex, personal background, expertise was *not* sufficient to provide a diverse range of perspectives to address the challenges from different points of view. Most participants were 'insiders' and content experts.
- There was insufficient participation from one of the main Camp Partners, the Committee of the Regions (CoR): only one participant from CoR attended the Camp.
- At future camps, more diverse participation is recommended, for example from entrepreneurs, endusers and engaged citizens.

Methodology.

- *Duration: Two versus three days*. Two days is insufficient to produce innovative and potentially useful results. An extra half day or a 3-day/48-hour format would provide extra depth and make results more robust.
- Socializing = cross-fertilization. A two-day programme itself does not offer enough possibilities for meeting members of different groups and the cross-fertilization that flows from that.
- *Bring your own solution*. The intention of the Camp process is to bring a challenge which needs new perspectives, not an already developed solution for working out further. The Solar Energy challenge brought its own solution, and it was to integrate new perspectives.
- *Group size*: Groups were not well-balanced, some being too large.

- *Prototyping*. Combining ideas into potential solutions went well, however providing more time for developing, testing and improving the initials prototypes could result in better proposals for taking forward after the Camp.
- *Enabling self-organising capacity.* Enabling the self-organizing capacity of participants (and eventually of society/challenge-owners) requires more focused attention (practice exercises & coaching) and more time than a two-day programme allows.









The facilitation team.

- *Hands-free Camp manager (lead facilitator).* This worked very well, and wherever possible should be continued. It allows all facilitators to focus on their own groups, while someone is available with an overview of all work-in-progress.
- *Facilitator team*. The team, consisting of professional facilitators with previous experience at Societal Innovation Camps, worked very well together.
- *Coordination during the Camp*. The facilitation team worked well during the Camp. There were short 'debriefings' and consultations for exchange of information when required.
- *Reports*. Using external rapporteurs from the same external organization (IDEA), already engaged with the Challenge-owners of each group, worked well. In principle, this should ensure a smooth continuous from Camp to prototyping and further development of promising ideas after the Camp.

Venue.

- The camp venue was comfortable, well-staffed and well-equipped a good location in the European Quarter for holding the Camp. Personnel provided all the services and facilities required for a successful Camp. The work spaces were adequate for the working process. The catering was excellent, with sufficient food for lunch and coffee/tea breaks, which is always an important success factor at Camps.
- Here, the choice was made for a professional and central-city location. This emphasized the 'serious' and 'European = Brussels' nature of the challenges.
- However, future camps should also consider other kinds of locations, which could support participants to more easily break free of 'business-as-usual' perceptions of what the challenge is about.

General recommendations and follow-up suggestions for Challenge Owners

We hereby provide general and specific recommendations for the challenge owners that may be further refined through an after-action review call with all the parties involved in the preparation and running of the camp.

- The camp was a success and we must look at the positive things that emerged.
- For each of the proposal coming from the Camp, a responsible party should be identified, who can take responsibility for ensuing activities in the coming weeks and months.
- Informing the other partnership members to generate more ownership, celebrate the results and include other ideas and suggestions to further enrich and transform the prototypes into actions.
- Next steps including what should be done in the next 6 weeks and 6 months should be worked out in more detail.
- Look for low-hanging fruit ideas where consensus already exists should be realized as soon as possible, in order to maintain momentum.
- Prototypes where diverse regions already have been identified as potential partners (for example, 'Engage citizens that can afford to pay – Regions as facilitator for market uptake of the energy efficiency measures', and 'Maximizing social benefits of sustainable buildings for vulnerable groups') should be developed further as soon as possible.









• Use the high level event envisaged for the S3PEnergy, to be held on the 25th of January, as an opportunity to further harness the energy and intelligence of the partnerships so as to present already some ideas with a high impact that can be implemented with relatively low effort.









Annexes

Annex A: Programme of the S3 Energy Partnerships' Innovation Camp 2017



Joint Research Centre







S3 Energy Partnerships' Innovation Camp 2017

10-12 OCTOBER 2017

EIT HOUSE, BRUSSELS

Tuesday, 10th October

JRC Headquarters, Room CDMA 04/A186, Rue du Champ de Mars/Marsveldstraat 21, 1050 Brussels, Belgium

17:45 - 18:30	Challenge owners & facilitators meet to prepare day 1
19:30	Innovation Camp's Informal Dinner with challenge owners & facilitators
	Restaurant La Kasbah, Rue Antoine Dansaert 20, 1000 Brussels

Wednesday, 11th October – DAY 1

EIT House, 7 Rue Guimard, 1040 Brussels, Belgium

08:30 - 09:00	Registration			
09:00 - 10:00	Opening Plenary: Convening the Camp			
	Welcome from			
	Ms Gergana MILADINOVA, Team Leader Sustainable Growth, DG REGIO, European Commission, "Strengthening innovation in Europe's Regions"			
	Ms Emanuela BELLAN, Head of Unit, Interinstitutional, International Relations and Outreach, Joint Research Centre (JRC), European Commission			
	M Manuel PALAZUELOS MARTÍNEZ , Project Leader Smart Specialisation Platform, JRC-Seville, European Commission			
	Introduction to S3 Energy Innovation Camp 2017			
	M Gabriel RISSOLA , Smart Specialisation Platform, JRC-Seville, European Commission, Camp convenor			
	M Paolo MARTÍNEZ, FUTOUR, Camp manager			
	- How the Camp process works			
	- Brief introduction of the participants			
10:00 - 10:15	Coffee taking			

12









10:15 - 12:30	Parallel working groups					
	Exploring the challenge and the opportunities, and generating first ideas					
	Challenge 1: Bioenergy: Integration of civil society in transnational and regional S3 implementation.					
	Challenge 2: Solar Energy: Innovative interregional financial instruments for commercial-scale demonstration projects (e.g. FOAK projects)					
	Challenge 3: Sustainable buildings: How to make investments in energy efficiency more attractive for the actors involved in a retrofitting process?					
12:30 - 13:30	Lunch + coffee					
13:30 - 16:15	Parallel working groups					
	Deepening understanding, enriching the ideas, converging ideas to create initial prototypes					
16:15 - 17:15	Peer-to-peer consultation					
	Groups present their preliminary ideas to other groups who challenge, question, and give new ideas and impulses for further development					
	Groups reconvene to discuss the feedback they have received					
17:15 - 17:45	Wrap up day 1					
	Reflecting on issues from day 1 and looking ahead to day 2					
	Free time for participants					
17:45 - 18:30	Challenge owners & facilitators meet to prepare day 2					
18:30 - 20:30	Innovation Camp 's Cocktail					

Thursday, 12th October – DAY 2

EIT House, 7 Rue Guimard, 1040 Brussels, Belgium

09:00 - 09:30	Opening Plenary: Setting the frame for day 2
09:30 - 09:45	Coffee taking
09:45 - 12:30	Parallel Working Groups
	Revisiting opportunities and sharpening insights
	Integrating ideas into concrete proposals
	Thinking ahead to plan real-world prototyping
12:30 - 13:30	Lunch + coffee
13:30 - 16:00	Parallel Working Groups
	Completing the proposals as practical prototypes
	Road-mapping the next 6 weeks/6 months/6 years
	Mapping stakeholders & responsibilities
16:00 - 16:30	Plenary Presentation of the proposals
	Presenting the prototypes as actionable items
16:30 - 17:00	Closing session Energy Innovation Camp 2017
	M Markku MARKKULA, Vice-president of the European Committee of the Regions
	Our ways forward: discussing next steps and plans for the coming months





Annex B: Participants to the S3PEnergy Partnerships' Innovation Camp

Speakers

Country	Region	Name	Organisation and Position	Role in the Innov. Camp
European Commission		Emanuela BELLAN	European Commission, JRC, Interinstitutional, International Relations and Outreach, Head of Unit	Keynote
European Commission		Markku MARKKULA	CoR, European Committee of the Regions, Vice- president	Keynote
European Commission		Gergana MILADINOVA	European Commission, DG REGIO, Team Leader Sustainable Growth	Keynote
European Commission		Manuel PALAZUELOS MARTÍNEZ	European Commission, JRC-Seville, Project Leader Smart Specialisation Platform, JRC-Seville	Keynote

Camp organisation

Country	Region	Name	Organisation and Position	Role in the Innov. Camp
European Commission		Gabriel RISSOLA	European Commission; JRC-Seville, Scientific Officer	Camp convenor
Italy		Paolo MARTINEZ	FUTOUR	Camp manager









Sustainable Buildings Challenge

nº	Country	Region	Name	Organisation and Position	Role in the Innov. Camp
1	Spain	Andalusia	Joaquin VILLAR	Andalusian Energy Agency, Head of Internationalisation and Prospective Dpt	Region - Challenge owner
2	Spain	Andalusia	Marisa BORRA	Andalusian Energy Agency, Project manager	Region - Challenge owner
3	Hungary	Észak-Alföld	Nora SALYA	LENERG Energy Agency Non profit Llc., Észak-Alföld region; Project manager	Region - Challenge owner
4	Finland	Lapland	Tytti AHORANTA	Digipolis, Kemi technology park, Project Manager	Region
5	Sweden	Jämtland Härjedalen	Erik NOAKSSON	Region Jämtland Härjedalen, Department of Enterprises & Business, Innovation Strategist	Region
6	Slovenia	Gorenjska	Matjaž GRMEK	LEAG (Lokalna energetska agencija Gorenjske)	Region
7	Denmark	Denmark	Nils DAUGAARD	Energy Centre Network Denmark	Region
8	UK	Gloucester	Mike BRAIN	SWEA (Severn Wye Energy Agency), Chief Executive Officer	Region
9	Finland	Etelä-Karjala	Markku MÄKI-HOKKONEN	City of Lappeenranta, Development Manager	Region
10	European Commission	na	Agata KOTKOWSKA	European Commission, EASME, Head of Sector Buildings, Heating & Cooling	Expert
11	European Commission	na	Margot PINAULT	European Commission, DG ENER, Buildings and Finance team. Experience on innovative financing of building renovation	Expert
12	Belgium	na	Rodolphe NICOLLE	Buildings 2030, ECEEE, European coalition for Energy savings	Expert

Continued /





European Committee of the Regions





Sustainable Buildings Challenge (continued)

n⁰	Country	Region	Name	Organisation and Position	Role in the Innov. Camp
13	Belgium	na	Vincent DUCHÊNE	IDEA Consult, Support to the S3 Energy Partnerships	Expert
14	Belgium	na	Jean-François ROMAINVILLE	IDEA Consult, Support to the S3 Energy Partnerships	Expert
15	European Commission	na	Isabelle SEIGNEUR	European Commission, JRC-Seville, Scientific Officer	Expert
16	na	na	Eusebiu STAMATE	Climate-KIC Central Office	Expert
			Hank KUNE		Facilitator







European Committee of the Regions





Solar Challenge

17

FUT●UЯ

n⁰	Country	Region	Name	Organisation and Position	Role in the Innov. Camp
1	Spain	Extremadura	Javier ORDÓÑEZ MUÑOZ	AGENEX (Extremadura Energy Agency), Head of the International Energy Projects Area	Region - Challenge owner
2	Spain	Extremadura	Rachel TULLY	AGENEX (Extremadura Energy Agency)	Region - Challenge owner
3	Spain	na	Natalia CALDES	CIEMAT (Research Centre for Energy, Environment and Technology)	Expert
4	na	na	Veronica CORNACCHIONE	ERRIN (European Regions Research & Innovation Network)	Expert
5	Spain	na	Ana DÍAZ VÁZQUEZ	European Commission, JRC-Seville, Scientific Officer	Expert
6	Belgium	na	Pierre PADILLA	IDEA Consult, Support to the S3 Energy Partnerships	Expert
7	Belgium	na	Daniela KRETZ	IDEA Consult, Support to the S3 Energy Partnerships	Expert
8	Finland	Etelä-Karjala	Markku MÄKI- HOKKONEN	City of Lappeenranta, Development Manager	Region
9	na	na	Marcel BIAL	ESTELA, European Solar Thermal Electricity Association	Expert
10	na	na	Javier DE RIVA ZORRILLA	Novadays	Expert
11	na	na	Radostina PRIMOVA	Heinrich Boll Stiftung EU, Director Climate and Sustainable Development Programme	Expert
12	Finland	Ostrobothnia	Krish SANKARAN	VEBIC (Vaasa Energy Business Innovation Centre), Director	Expert
13	European Commission	na	Piero DE BONIS	European Commission, DG RTD, Research Programme Officer EC	Expert
			Jonas KLEVHAG		Facilitator

Technical Report | Brussels Energy Innovation Camp 11-12/10/2017





Europeen Institute of Innovation & Technology



Bioenergy Challenge

nº	Country	Region	Name	Organisation and Position	Role in the Innov. Camp
1	Finland	Lapland Region	Ilari HAVUKAINEN LAPIN LIITTO	Regional Council of Lapland, Cluster Development Manager	Region - Challenge owner
2	Spain	Castilla y León Region	Rafael AYUSTE CUPIDO	Junta Castilla y Leon, Director renewable energy department	Region - Challenge owner
3	European Commission	na	Karel VANDERPOORTEN	European Commission, DG GROW, Team leader; social economy enterprises	Expert
4	European Commission	na	Nigel TAYLOR	European Commission, JRC-Ispra, Scientific Officer; Bioenergy	Expert
5	European Commission	na	Joachim KREYSA	European Commission, JRC-Brussels, Principal advisor Bioeconomy JRC	Expert
6	European Commission	na	Javier GÓMEZ PRIETO	European Commission, JRC-Seville, Scientific Officer; Regional policy, smart specialisation, renewable energy	Expert
7	European Economic and Social Committee	na	Krieger KRISTIAN	European Economic and Social Committee	Expert
8	Belgium	na	Els VAN DE VELDE	IDEA Consult, Support to the S3 Energy Partnerships	Expert
9	Austria	na	Manfred SPIESBERGER	Center for social Innovation, Energy and social innovation, civil society engagement	Expert
10	Finland	Lapland Region	Johannes VALLIVAARA	Cluster manager, Regional Council of Lapland/ProAgria Lapland	Region
11	Finland	Lapland Region	Kristiina JOKELAINEN	Manager for International Relations, Regional Council of Lapland	Region

Continued /

18 FUTOUЯ









Bioenergy Challenge (continued)

n⁰	Country	Region	Name	Organisation and Position	Role in the Innov. Camp
12	Italia	Lombardia	Alessandro LUÈ	Poliedra - Politecnico di Milano (expert on RES)	Expert
13	Finland	North Karelia	Anniina KONTIOKORPI	Regional Council of North Karelia (policy expert on RES)	Region
14	Spain	Castilla y León Region	Gregorio ANTOLÍN	University of Valladolid	Expert
16	Finland	Tampere	Jukka HYVÖNEN	Development expert at Joensuu Science Park Ltd & JOSEK Ltd, University of Tampere	Expert
	na	na	Pleun SCHIMMELPENNINK		Facilitator

Logistic support

Country	Region	Name		Organisation and Position	Role in the Innov. Camp
European Commission	na	Pedro GOMEZ	Europea	n Commission, JRC-Seville	Organisation
na	na	Amanda SOLAZZO Climate-KIC Central Office		Organisation	
na	na	Cristian MATTI	Climate- Learning	KIC Central Office, Transitions Hub Knowledge & Manager	Expert
European Commission	na	Moritz HALLER	Europea Internati	n Commission, JRC-Brussels, Interinstitutional, onal Relations and Outreach	Organisation
European Commission	na	Alessandro MATTIATO	Europea Internati	n Commission, JRC-Brussels, Interinstitutional, onal Relations and Outreach	Organisation









Annex C: Challenge descriptions

Sustainable Buildings Challenge

Challenge Name: *How to make investments in energy efficiency more attractive for the actors involved in a retrofitting process?*

GENERAL

Theme	The challenge is related to the practical issues of how to build thematic open innovation ecosystems at regional and European level, where all the actors involved in a retrofitting process (public sector, enterprises, academia and the citizens) can find the adequate stimulus to implement energy efficiency measures in the European building stock. The challenge is to develop common schemes for financing energy rehabilitation of buildings in the European regions, promoting at the same the interregional collaboration to widen the scope of the interventions. How to get all parties engaged, what kind of online engagement platforms should be used, what kinds of governance must be applied, what kind of new indicators and processes can be taken into action?
Challenge-owner and Organisation	Andalusian Energy Agency, Regional Ministry of Economy, Business and Trade, Andalusian Regional Government.
Contact person (if different than above)	Joaquín Villar Rodríguez, Head of the Internationalisation and Prospective Department, Andalusian Energy Agency.

Challenge-OWNER DESCRIPTION (background)

The challenge owner is the Andalusian Energy Agency as leader of the PARTNERSHIP OF EUROPEAN REGIONS ON SUSTAINABLE BUILDINGS.

The main challenge at European interregional level of Sustainable Construction is the difficulties encountered to finance energy efficiency and renewable energy measures addressed to the sustainable building sector.

The problem of finance is complex and it should focus on responding to the question on:

How to make projects in energy efficiency of buildings "sweet" and "soft" for private banks investments?.

How to design new ways to engage citizens and enterprises to tackle the renovation of buildings?

How to finance projects with an interregional scope?

BACKGROUND/CONTEXT of the Challenge

The challenge focuses on the engagement/contribution of quadruple helix stakeholders, especially those from the financial sector and consumers in the implementation of energy efficiency measures in buildings.

We advocate to more complex collaborative formulas that are materialised into real projects developed between various regions. Within this challenge we would like to explore solutions that may take into consideration the energy











performance of buildings, including environmental performance indicators (as the carbon footprint) and other parameters to make financing clear for financial institution's requirements and for citizens. The Public Administration have an essential role by contributing to putting into practice an Action Plan and taking into consideration all stakeholders (quadruple helix) involved in order to successfully overcome this challenge.

DESCRIPTION OF MAINISSUES, OPPORTUNITIES and OBSTACLES

Main Issues

How can sustainable buildings projects be "sweet" and "attractive" for private investors and financial institutions at regional and European Level?

How can the ideas and actions of different stakeholders contribute to achieve common goals and create a better winwin situation for all?

How can user engagement and methods contribute to create new financial models, markets, services, products, especially for interregional collaboration?

What is the role of the public sector in this? How can the public sector collaborate at European Level to ensure the fair share of success to each stakeholder group?

Underlying Issues

We would like you to help us to develop new regional experiences on the following issues:

- Stakeholder engagement aimed at promoting energy efficiency measures in buildings through new financial tools
- Collaboration among regional bodies and financial institutions at European Level to promote sustainable buildings projects.
- Collaboration to adapting environmental, economic and energy performance indicators and parameters for financial institution's requirements and for clear performance addressed to the citizens.

Opportunities

Innovation Camp methodology offers the Sustainable Building partnership an opportunity to collectively analyses the Challenge and propose new ideas involving different stakeholders on a participatory bottom-up approach.

The Proposal for the new European Union Directive on the energy performance of buildings makes the right momentum for involving citizens, financial institutions and stakeholders in the co-creation of new financial models.

Obstacles

21

Experiences of financing projects of the Sustainable Building Sector have not yet covered all European Union regions. The Building sector is atomized. How to spread the best practices and develop new financial ways to financed sustainable buildings?

MAIN CHALLENGE OBJECTIVES

FUT●UЯ

2 or 3 bullet point sentences describing each objective. Describe in more detail If necessary.

- develop a prototype idea for better Innovation on new financial models and boosting stakeholders' engagement at European Level in the implementation of energy efficiency measures in buildings
- out of the box ideas on what such processes can bring to business models and the job market for interregional









collaboration

recommendations on proposals to be implemented by EU, regional and local policy makers

Relevant Stakeholders and stakeholder organizations

EU regions and stakeholders of the Sustainable Building Sector, including Financial Institutions, as the European Investment Banks, the Sustainable Energy Investment Forums, and institutions working with Vulnerable Groups, Civil Society, Citizens and Users.

Background documents for the participants in our group (investigate further):

http://s3platform.jrc.ec.europa.eu/sustainable-buildings

https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings

https://deep.eefig.eu/

https://ec.europa.eu/energy/en/financing-energy-efficiency/sustainable-energy-investment-forums

http://figbc.fi/en/building-performance-indicators/

https://www.enerinvest.es/









Solar Challenge

Challenge Name: Solar

GENERAL

Theme	Financial and Legal Structure
Challenge-owner and Organisation	Junta de Extremadura, working jointly with AGENEX
Contact person (if different than above)	Javier Ordóñez (<u>jordonez@agenex.org</u>) Rachel Tully (<u>rctully@agenex.net</u>)

Challenge-OWNER DESCRIPTION (background)

The Extremadura Energy Agency (AGENEX) is a public institution, created in 2001 thanks to the EU SAVE programme, which aims to promote renewable energy sources, increase the efficiency and energy savings, and support energy planning at local and regional level. AGENEX has become a key-actor in the development of Extremadura's energy sector.

AGENEX will be supported at all time by the Regional Government (Junta de Extremadura), one of the prime movers for this Smart Specialization Solar Partnership.

BACKGROUND / CONTEXT of the Challenge

The challenge we have identified addresses a complicated and complex problem, how to legally structure the desired Solar Partnership. We must analyse the financial viability to carry through this project (searching for investors in the public or private sector) and clear the legal terms and regulations that will allow this project to move forward.

This challenge is relevant and open ended, it has been chosen according to European needs and will be discussed to find a solution during Innovation Camps. The purpose of these camps is to share potential for innovation and to embrace a real commitment to take results forward.

DESCRIPTION OF MAIN ISSUES, OPPORTUNITIES and OBSTACLES

Main Issues

The main issue is how to legally structure the Solar Platform Partnership and receive public funds (state aids) without interfering in the market economy. Receiving government support makes a company gain an advantage over its competitors, and it is only allowed if justified by reasons of general economic development.

Underlying Issues

A possible issue that will appear if the project goes through, is how the solar platform will be economically viable (for production or research).

Opportunities

Extremadura is capable and experienced enough to lead solar energy projects, specifically, to work on a hybrid











technology that includes Solar Concentrated Power (SCP) and Photovoltaics (PV), increasing the number of profitable hours.

Many participating regions are involved and committed to get this project off the ground, and have common energy technology interests.

Obstacles

Both obstacles addressed are related to the land needed to develop a solar platform, dealing with the Environmental Territorial Office and reaching an agreement with the municipality that owns the land and its Territorial and Urban Plan.

MAIN CHALLENGE OBJECTIVES

2 or 3 bullet point sentences describing each objective. Describe in more detail If necessary.

- Mobilize an investment project offering interaction and participation for interregional cooperation.
- Combine complementary strengths and research capacities to overcome difficulties and obstacles.
- Reach a defined plan or strategy to develop the project as smoothly as possible.
- Find a solution in a legal and financial way to overcome the initially identified problems or issues.

Relevant Stakeholders and stakeholder organizations

- Policy makers: to mobilize self-organizing capacities of cities and regions to address the challenges.
- Business/ Entrepreneurs: to join interests, capacities and folders to compete innovatively in a globalized market.
- Academia: to identify research and innovative capacities to be developed.
- Civil Society: to empower citizens to gain ownership and conceive innovative solutions to issues of their concern.

RELEVANT INFORMATION

Links to videos, reference material (books, scientific papers, annual reports, etc.), photos, organisation website, projects related to the challenge etc.

Attachments (if necessary)

Other material relevant to understand the challenge









Bioenergy Challenge

Challenge Name: Engaging members of the rural communities as innovative stakeholders in bioenergy ecosystems

GENERAL

Theme	Enabling Investments for decentralised renewable energy sources (RES) based on biomass. How to coordinate and support systems including multiple investments in value chain? How to engage communities to the development?		
	The challenge is related to the building (1) bin the innovative stakeholder engagement of the and members of the communities).	oenergy and (2) heating and cooling ecosystems with ne quadruple helix parties (public, private, academia	
	Mainly members of the communities can be an active part of the bioenergy value chains, bringing knowledge of their own demand, technological and non-technological needs as well as their rights and interests.		
	How to get the correct parties engagement, which kind on engagemen normative, at planning level, at ERDF level decision)		
Challenge-owner and Organisation	Ilari Havukainen	Maria del Puy Dominguez Perez	
	Regional Council of Lapland ilari.havukainen@lapinliitto.fi	Ente Regional de la Energía de Castilla y León (EREN) dompermi@jcyl.es	
Contact person (if different than above)			

Challenge-OWNER DESCRIPTION (background)

25

FUT●UЯ

Bioenergy is a common priority of smart specialisation for several regions across EU. Accordingly, in 2016 the smart specialisation platform on energy has supported the creation of an **interregional partnership for bioenergy and smart specialisation** which is currently working in four priority areas: biofuels, biomass, heating & cooling, biogas and knowledge transfer.

This bioenergy partnership is led by the regions of Lapland (FI) and Castilla y Leon (ES) and engages the participation of other 14 regions committed to being frontrunners in developing forest-based as well as non-food agriculture-based bioenergy as the basis for sustainable regional growth. In line with the EU goals, bio-energy represents about two-thirds of the renewable energy production in the European Union and is one of the main energy sources contributing to fulfil the 20% objective with renewables for 2020.

With this interregional partnership initiative, participant regions are already meeting and expect to develop common ground for cooperation through the common elaboration of steps such as mapping, pilot activities and joint investments based on decentralized renewable solutions (e.g. wood chip or biogas CHP plants) second generation biofuels, produced mainly from lignocellulose biomass, residues or waste.

During the past years, many public authorities and biomass promoters have reoriented their approach towards









engaging the rest of stakeholders (e. Tg. Consumers) and the public - members of the communities.

Experiences in different European regions show that stakeholder engagement in the early phases of the decision process may reduce conflicts and lead to more shared decisions with consensus.

Although to gain the consensus of the quadruple-helix actors is difficult, the rationale of stakeholder engagement is to foster the parts to accept the outcome of a multi - dialogue and permitting process if they consider the procedure to be transparent, useful, participatory and fair.

BACKGROUND / CONTEXT of the Challenge

Regional Bioenergy partnership will help SME companies and R&D organisations to establish a better understanding about the critical factors to succeed and develop a long-term vision hand in hand European and regional policies. European industrial and technological development will be supported by identifying the technological needs of SMEs in the regions. Towards policy makers partnership offers help with understanding the needs of actors and positioning more effective policy content. Also, crucial policy instruments will be mapped and challenges identified keeping the regional and national policy differences in mind.

The regions involved are committed to being frontrunners in developing forest-based as well as non-food agriculturebased bioenergy as the basis for sustainable regional growth. In line with the EU-goals and principles of circular economy, bioenergy production in regions should be based on decentralised renewable solutions (e.g. wood chip or biogas CHP plants) second generation biofuels, produced mainly from lignocellulosic biomass, residues or waste, may it be from forest or non-food agricultural origin. Decentralised solutions are crucial in sparsely populated and rural areas of EU preventing capital outflow and leakage from the community through energy consumption

New projects in the fields of RES, especially bioenergy, are needed to create more decentralised energy production and safeguard the resources of the rural communities for future development by cutting down the fossil energy sources.

The revised "Renewable Energy Directive (COM(2016) 767 final/2) proposal", promotes the local members of the communities participation in renewable energy projects.

In the partnership of the Smart Specialisation Platform on bioenergy, some members have shown their interest for this issue. Some experiences have been developed by partners, such as the stakeholders process engagement of the Castilla y Leon Heating and cooling Renewable strategy, where public - citizens, enterprises and academia have participate in the tailored process for develop a regional heating and cooling strategy.

On the communication "On the EU strategy on heating & cooling. (COM(2016) 51 final)" where developing a strategy to make heating and cooling more efficient and sustainable is a priority for the Energy Union. Consumers must be at the centre of this strategy, using sustainable heating and cooling system that can, improve air quality, increase well - being for individual citizens or member of a community and provide benefits to society as a whole.

DESCRIPTION OF MAIN ISSUES, OPPORTUNITIES and OBSTACLES

Main Issues

- How to involve civil society as a stakeholder and create value through the engagement?
- In which capacity civil society should be involved to development processes?









Underlying Issues

- How communities can be involved and their opinions considered?
- Segmented communication with consumers, suppliers and professionals
- It can be created an open channel of opinion for EU citizens about bioenergy projects (or regulations or policies) through the S3P?

Opportunities

- New market approach, new professional + academia specialization.
- Project aggregations.
- Development projects more efficient, effective and reliable.

Obstacles

- In Europe there are diverse real situations due to diverse climatology, urbanism and bioenergy market structure as a consequence of more or less presence of some fuels or others in the district heatings or individual boilers.
- Economies of scale.
- Risk-finance.
- More complex project development

MAIN CHALLENGE OBJECTIVES

2 or 3 bullet point sentences describing each objective. Describe in more detail If necessary.

Include a "Civil society assessment report " in the bioenergy and heating & cooling small-scale and medium size projects or regulations or policies

Recommendations to EU and national or regional administrations how include members of the communities in bioenergy policy development.

Relevant Stakeholders and stakeholder organizations

European Commission Joint Research Centre (S3 Energy) and other Thematic smart specialization partnerships

European regional authorities from the regions having focus on RES, bioenergy or heating and cooling in their S3 implementation

European energy agencies and intermediaries (from the regions having focus on RES, bioenergy or heating and cooling in their S3 implementation)

European Biomass Association (AEBIOM)

FUT●UЯ

European Biomass Industry Association (EUBIA)

RHC Platform (ETIP RHC)

COGEN Europe (The European Association for the Promotion of Cogeneration

DHC+ Technology Platform

27

Technical Report | Brussels Energy Innovation Camp 11-12/10/2017









European Power Plant Suppliers Association (EPPSA) ???
European Technology Innovation Platform Bioenergy (ETIP Bioenergy)???
Kic innnoenergy
CLIMATE KIC
CdR. ENVE COMITTEE
EMA

RELEVANT INFORMATION

Links to videos, reference material (books, scientific papers, annual reports, etc.), photos, organisation website, projects related to the challenge etc.











Annex D: Contents of emerging prototypes

Sustainable Building Challenges emerging prototypes

Sustainable building partnership Takeaways innovation camp (11-12/10/2017)

Introduction

This report aims at presenting the key takeaways from the discussions that took place during the Innovation Camp (11 and 12/10/2017). This document does not aim at providing an exhaustive report of all discussions but focuses on the general process and outcomes of the discussions. More specifically, the report is structured as follows:

- Discussing the challenge, sharing experiences and narrowing the scope;
- Identifying and elaborating 3 solution paths ('prototypes').

Discussing the challenge, exchanging experiences and narrowing the scope

The **initial challenge** was 'How to make investments in energy efficiency more attractive for the actors involved in a retrofitting process?'.

This challenge was discussed among participants, who highlighted the importance (when considering tackling such a challenge) of taking into account, among others, **the following generic solution paths**: micro funding, engagement of private institutions and citizens, retro financing and retrofitting, establishing a common language between private institutions and building owners/local authorities, elaborating proofs that refurbishment is profitable, tackling asymmetry of information, reaching critical mass, importance of value creation (instead of focusing solely on funding needs), focusing on the deployment of technological solutions (a lot of solutions are already available), etc.

In addition, participants highlighted the fact that, when aiming at tackling such a challenge, the **following 'methodological' aspects** should be taken into account:

- Importance to define what a sustainable building is and to identify related performance indicators.
- Sustainable buildings encompass very different segments. The needs/obstacles related to the (financing of the) refurbishment of buildings widely vary across:
 - Types of buildings stock;

FUT●UЯ

29

- Types of owners (public/private, vulnerable groups or not, etc.);
- Regions (legislation, awareness is sometimes a problem sometimes not, systems in place, etc.).

The box below presents some non-exhaustive **ideas/examples of regional/national practices that have been shared among participants**. As indicated below, some of them have been later more elaborated.

- In Belgium, a project of 'open houses' has been initiated in order to demonstrate innovative solutions. Building a network of pilot houses could be one goal of the present partnership.
- The partnership should ensure complementarity with the KIC, which is an important source of examples, etc.









- In Denmark, a project focused on the awareness raising of house owners in order to convince them to contact banks and organise renovation.
- In Estonia and Lithuania, some projects allowed private banks to be more involved and engaged in buildings refurbishment. This resulted in lower interest rates (through, e.g. aggregation). Such aggregation also occurred in Holland (with a specific project transferred in France and the UK, for example).
- Etc.

Generally, successful schemes are not totally and directly transferable from a country to another. However, some main principles should be taken into account and transferred. In this view, the setting up of a cross-regional toolbox would allow to promote experimentations and gain insights from them.

Throughout the discussions, it appeared obvious that the scope of the challenge was wide and required a focus on some specific segments/types of solutions paths.

Based on these observations, two paths were further explored, taking into account some aspects that were common to various observations made. These two paths are described in the box below.

- On a more global level, a first group focused on 'how to build a market' and elaborated the following checklist (information and actions needed to reach that goal).
 - a. Information collection and treatment
 - i. Mapping exercise indicating of actors active in refurbishment of buildings.
 - ii. Regional building stock observatory, based on a typology of buildings, PEC, energy poverty, etc.
 - iii. Identify needs/solutions: size of the market, capacities (workers, products), certification, qualification (people and production).
 - b. Technical assistance.
 - c. Financing.
 - d. Access to market (awareness raising)
- In parallel, a group focused on possible means to incentivize potential buyers of products or services related to sustainable buildings to buy more sustainable products by way of two actions:
 - Local aggregation of (private) buyers aimed at lowering prices.
 - Pan European green public procurement. Based on a scaling up of an initiative conducted in Sweden (technical requirements of products.) and that would include demonstration activities.

The group later agreed to further elaborate some specific aspects related to 'technical assistance' and 'financing'. More specifically, three solutions paths, that relate each to one 'target group' in terms of owners/tenants of houses/buildings ((i.e. citizens that can afford to pay, lower income (owners/tenants), public owners (public owned buildings)), were discussed (see below for a very brief overview). A more complete description (actions in 6 weeks/months/years, etc.) of the prototypes is available in annex.



31

FUT●UЯ







Elaborating solution paths / prototypes

1. Engage citizens that can afford to pay – Regions as facilitator for market uptake of the energy efficiency measures

The prototype would aim at upscaling and extending the ESCO's model to technology procurement while targeting citizens. The general model envisioned is the following: regions/local authorities would issue public procurements related to the purchase of 'sustainable' goods (boilers, etc.). These goods would then be bought by ESCOs and sold to citizens (and eventually to public buildings) at a lower price (aggregation). Public procurement could include a criterion that promotes products from cross-regional collaborations.

Additional specific information about the prototype is provided below.

2. Improving sustainability of public buildings through (green) public procurement – Implementation of sustainable public buildings competencies by demonstrating the power of open data management

The aim of this prototype is to foster sustainability and innovation in public buildings stock, building upon increasing use of open data management. More specifically, based on existing monitoring and management tools (open communication data protocols, sensors, remotely controllable devices etc.) and the utilization of new tools and analysis, diagnosis and building management needed to make buildings more sustainable would be more accurate.

Open data management and the use of new tools, protocols and analysis could be promoted by public procurement (probably not a unique European public procurement but several regional ones for which goods practices, processes, etc. could be shared among regions). This would allow to make better diagnosis of future needs (for possible additional public procurements).

As mentioned in the picture below, this prototype would include the following specific actions that would promote deployment of open data management: trainings for buyers and buildings managers, setting up catalogue of certified products, ensuring (via e.g. Small Business Act) that SMEs are not excluded/disadvantaged in these public procurements, etc. Cross regional collaborations (sharing best practices, establishing common guidelines, toolbox, common training scheme and certification, etc.) would be relevant for all these actions.

Additional specific information about the prototype is provided below.

3. Maximizing social benefits of sustainable buildings for vulnerable groups

Finally, a last group designed a prototype to tackle fuel poverty. The main objective would be to set up local/regional energy funds (incl. public and eventually private funds), which would allow to provide lower income citizens with energy at a lower cost. It must be noted that there are very different situations in regions (from Romania to Finland). In this view, peer to peer sessions, sharing best practices, etc. would be highly relevant. The picture below (and the related fiche) provides more information about the project.

Additional specific information about the prototype is provided below.









DESCRIPTION OF THE PROTOTYPES

1. ENGAGE CITIZENS THAT CAN AFFORD TO PAY – REGIONS AS FACILITATOR FOR MARKET UPTAKE OF THE ENERGY EFFICIENCY MEASURES

Description of Proposed Actions

- The generic action proposed is to upscale and extend (at regional level) the ESCO's model to technology procurement and to target citizens (as 'end-buyers').
- The innovative model would work as follows: regions/local authorities would issue public procurements
 related to the purchase of 'sustainable' goods (boilers, etc.). These goods would then be bought by
 ESCOs and sold to citizens (and eventually to public buildings' owners/mangers) at a lower price
 (aggregation). Public procurements could include a criterion that promotes products from crossregional collaborations.
- In order to develop such a model, some specific actions are foreseen. These specific actions are described in the "description of the best ideas". See below.

What will this achieve? What is the societal impact?

The expected impacts are the following: energy savings, promotion of more sustainable products and innovative solutions, promotion of cross regional collaborations, etc.

Who is Responsible?

The partners of the partnership (a specific leader still has to be identified): Andalusia (Spain), Region of Östersund (Sweden), Region of Észak és Alföld (Hungary)

Who will be involved? (In Society? In the Challenge team?)

- Regional/local authorities and administrations;
- ESCO's;
- Citizens;
- Suppliers.

32

FUT●UЯ

Description of the best ideas

- First, it would be needed to collect additional information about the ESCO's and public procurement systems currently in place in participating regions.
- Then, the model could be designed and a first set of purchases (e.g. 3) could be launched. As said above, regions would issue technology procurements in order to buy (aggregation) a large number of e.g. more sustainable products (boilers, etc.). ESCO's would buy products (after suppliers being selected according to key selection criteria) and citizens will be able to buy the products from ESCO's at lower price.
- The added value of cross regional collaborations lies in the sharing of best practices and processes (in particular, some regions have developed advanced ESCO's systems and some have developed interesting principles/practices in technology procurement) that would help develop the model. In addition, cross regional collaboration could be promoted through the inclusion of a specific criteria in the public procurement (products developed in a cross regional context could be favored).

Resources targeted to set up and implement the ideas would be the following: ERDF funds, Private Financing, European Programs.









1st Steps: What must happen in the next 6 weeks?

Who should do what?

- Identify possible ESCO's and public actors that should be involved;
- Discuss broad guiding principles and main characteristics of the innovative model;
- Involve financial entities and design tools to involve citizens.

Prototyping: What must happen in the next 6 months?

Who should do what?

- Identify possible calls, programs to support the scheme;
- Validate the design and characteristics of the innovative model.

Impact in 6 Years

33

FUT●UЯ

Having launched at least 3 purchases (see above for expected impacts).



Technical Report | Brussels Energy Innovation Camp 11-12/10/2017









2. IMPROVING SUSTAINABILITY OF PUBLIC BUILDINGS THROUGH (GREEN) PUBLIC PROCUREMENT – IMPLEMENTATION OF SUSTAINABLE PUBLIC BUILDINGS COMPETENCIES BY DEMONSTRATING THE POWER OF OPEN DATA MANAGEMENT

Improving sustainability of public buildings through (green) public procurement – Implementation of sustainable public buildings competencies by demonstrating the power of open data management

Description of Proposed Actions

- Increase the deployment of monitoring and management tools (sensors, control devices, etc.) in public buildings and open data management protocols in regions, through mutual learning and public procurements.
- This prototype would include the following specific actions aimed at promoting and facilitating deployment of open data management: trainings for buyers and buildings managers, setting up catalogues of certified products, ensuring (via e.g. Small Business Act) that SMEs are not excluded/disadvantaged in these public procurements, etc. Cross regional collaborations (sharing best practices, establishing common guidelines, developing toolbox and common training scheme and certification, etc.) would be relevant for all these actions.

What will this achieve? What is the societal impact?

The expected impacts are the following: improvement in diagnosis and building management methods needed to make buildings more sustainable, energy savings, costs saving, development of more innovative products, etc.

Who is Responsible?

The partners of the proposed action:

Potential specific leader: South-Karelia. Finland. Other potential partners to be identified.

Who will be involved? (In Society? In the Challenge team?)

- Regional/local authorities and administrations.
- Citizens
- Health insurances
- Energy suppliers
- etc.

Description of the best ideas

- First, it would be needed to collect additional information about similar/comparable initiatives launched in the regions and to share such insights.
- The use of open data protocol, digital services, building automatization, sensors and control devices should be widespread (mutual learning, toolboxes and green public procurements).
- Aspects mentioned above could be promoted by public procurements (probably not a unique European public procurement but several regional ones, for which goods practices, processes, etc. could be shared among regions). This would allow to make better diagnosis of future needs (for possible additional public procurements). Public requirements could first focus on technical specificities such as EED, EPD requests, open data, share of data, services, etc.









• It is also suggested to design relevant training schemes for buildings' managers and buyers in order to ensure efficient use of monitoring tools, etc. Cross regional collaborations could help designing certification scheme for trainings, etc.

1st Steps: What must happen in the next 6 weeks?

- Experiment the idea, draft and sharing 'scoping note';
- Reality check of other existing initiatives;
- Webinar;
- Partners identification;
- Fine tuning proposal;
- Presentation high level event.

Prototyping: What must happen in the next 6 months?

- Basic specifications for green public procurement;
- Training needs;
- Check list: open data protocols, general public procurements → design of the process to launch Green Public Procurements (GPP)

Impact in 6 Years

- Catalogue of certified products
- 'Small business acts'











3. MAXIMIZING SOCIAL BENEFITS OF SUSTAINABLE BUILDINGS FOR VULNERABLE GROUPS

Description of Proposed Actions

- The generic action proposed is to develop local/regional revolving funds that would allow to provide lower income citizens with energy at lower cost (aggregation of demand).
- As detailed below, several actors could be involved in the setting up of the fund: public authorities (statutory obligation), private funders, health insurances, etc.

What will this achieve? What is the societal impact?

The expected impacts are the following: improved health and wellbeing, positive economic and environmental impacts, etc.

Who is Responsible?

The partners of the proposed action: (a specific leader still has to be identified): Andalusia (Spain), Gloucester (UK), Gorenjska (Slovenia), Lapland (Finland), Romania.

Who will be involved? (In Society? In the Challenge team?)

- Regional/local authorities and administrations.
- Citizens
- Health insurances
- Energy suppliers
- Etc.

Description of the best ideas

- First, it would be needed to collect additional information about similar/comparable initiatives launched in the regions and share such insights.
- Then the fund characteristics should be designed. Some first ideas were shared: revolving fund, both private and public contributors, aggregation of demand in order to get lower prices, etc.

1st Steps: What must happen in the next 6 weeks?

- Regional commitment
- Collection of preliminary information (comparable initiatives)

Prototyping: What must happen in the next 6 months?

- Design of the model
- Interactions with stakeholders and involvement

Impact in 6 Years

Energy poverty reduction through setting up of innovative schemes.









Solar Challenge Emerging Prototypes

Solar Partnership – Takeaways from the Energy Interregional Innovation Camp (11-12/10/2017)

Introduction

37

FUT●UЯ

This report aims at presenting the key takeaways from the discussions that took place during the Innovation Camp (11 and 12/10/2017). This document does not aim at providing an exhaustive report of all discussions but focuses on the general process and outcomes of the discussions. More specifically, the report is structured as follows:

- First the challenge and its delineation are presented;
- Second, the identification of 2 possible pathways (*'prototypes'*) that led to the selection of the most realistic way of addressing the initial challenge and move forward.



Discussing the challenge, exchanging experiences and narrowing the scope

The **initial challenge** was to of a financial nature and related to a key question: "Innovative interregional financial instruments for commercial-scale demonstration projects (FOAK) in the field of renewable energy". The challenge addresses a complicated and complex problem, how to legally structure the desired Solar Partnership. We must analyse the financial viability to carry through this project (searching for investors in the public or private sector) and clear the legal terms and regulations that will allow this project to move forward.

During the first day of the innovation camp the challenge was further specified towards the target of the "Development of a 100MW hybrid solar plant that includes CSP and PV technologies to export solar energy from Extremadura to other EU regions or Member States so they can achieve their EU RES targets. This









plant will run commercially but will also include a research and innovation centre to test and keep on developing this technology."

A central aspect of the challenge is the gap in the price of CSP versus other renewable energy.

Due to the gap in finance, the discussion explored several ways forward:

- Off-takers could be utilised to sign PPAs together with this plant. Off-takers could be EU regions willing to meet their RES targets, OR off-takers could also be private corporations (national or foreign) willing to become "greener" including a high percentage of renewable energy in their consumption
- **Possible financing instruments could be explored based on the project's characteristics and eligibility**. Focusing on how to cover the gap between the plant's production price and the pool price, estimating beforehand the amount of this gap, by defining the techno-economic configuration of the project.



European Commission Joint Research Centre	European Committee of the Regions	European Institute of Innovation & Technology	Smart SPECIALISATION PLATFORM #S3PEnergy
GAP	INTRAREGIONAL Who? PROS? INTERREGIONAL Who? Pros?	BASANCERS ? BASANCERS ? BUSANCERS ? () How much & GIP ? () How much	Have much GUP?

A secondary component of the challenge is the inter-regional collaboration component

 Inter-regional collaboration lies at the heart of the TSSP on Energy. The need to address the regional commitment and engagement of other EU regions is centrally important to the way forward for the overall partnership.

Elaborating solution paths / prototypes

39

FUT●UЯ

The choice was made to favour a solution pathways which would consist in a cross-regional approach to the setting up of the RTDI-based CSP Plant.

A series of clear actions have been defined in order to overcome the immediate obstacles to the setting up of a clear cross-regional partnership. These actions follow two key lines which are on the one hand the "Business Plan Development" line, and on the other hand the "Regional Outreach" line.

Business Development Line (Bridging the finance gap)

- Complete a detailed Business Plan to study the feasibility of the project. The business development line undertaken by a sub-contractor in close collaboration with the Region of Extremadura, its representatives and the European Commission (IPTS), is foreseen in several sequential deliverables;
- Analyze how the European Renewable Energy Directive can have an impact in our project.
- Deepen the knowledge on Cooperation Mechanisms, relying on an expert.
- Feedback on the first deliverable and sub-sequent adjustments are now the first of the actions to be foreseen and discussed along this line;
- Capability gaps should be identified (in terms of key systems/solutions not available in Extremadura or requiring some targeted sourcing) as to further guide the search for regional partners;
- They will be followed by one (and more) refinement round(s) as to improve the business plan which shall also be fed in with mapping information from the second line of work;









• In parallel financial instruments and support mechanisms will have to be explored (in view of also construction costs, produced energy price and so on).

Regional Outreach Line (inter-regional collaboration)

- First, documentary information has to be circulated across the players involved (the experts, the Region, the European Commission);
- A mapping is foreseen that should identify key players in the "lead" regions. The mapping will draw upon different sources at regional and national levels;
- A Workshop should take place in Spain to raise awareness and collect possible interests from regional participants;
- Bilateral contact rounds shall then be undertaken on the basis of the mapping. These will take place
 in parallel of the other tasks and will be between the current Lead Region and targeted regional
 partners as to present and promote the project and their active involvement in the process of
 unlocking their participation and/or the one of other regional partners. The bilateral contacts should
 lead to a clear view on the potential off-takers effectively willing to import energy, regions with a
 strong industrial specialisation in relevant areas, but also RTDI players willing to take advantage of
 the developments to be undertaken in the context of the project.
- A good idea that came out from the Innovation Camp is the intention of collaborating with a Finnish region that currently develops this solar technology, but due to their climate and solar conditions don't have the chance to test it on site. They showed their interest in the project especially because of the R+D component.

The targeted achievement should lead to a range of different impacts.

The completion of the proposed actions said before will achieve a greater view of the project's possibilities. Not only from a feasible point of view, but also going into detail of what necessarily needs to be analyzed in order to move forward.

It will not only help expand our knowledge on financial and legal aspects, but involving experts in different matters, will broaden the skills that will be working on the project, combining complementary strengths and research capacities to overcome difficulties and obstacles.

This STE plant will have multiple impacts and benefits at the EU level, National level and Regional level.

• **Short term.** The main short-term results being targeted are mainly focused on the sorting out of a reliable business plan but also the implementation of practical steps that should unlock the participation of regional partners to this partnership, in a committed and constructive fashion. New partners owe to be found as to make sure that intermediary investments but also the off-taking of the energy resulting from the project is well-organized.









- **Medium term.** In the medium term, the actions would result in the successful setting up of a partnership focusing on the research, development, innovation and generation Concentrated Solar Power in view of its distribution across European Regions. Such achievement would lead to new innovative developments at the process and product level as well as a reduction of solar energy costs. It would also lead to a strengthened cross-regional collaboration beyond energy topics as well as to a reinforced industrial tissue (with more inter-connected players and the reduction of information asymmetries).
- **Long term.** In the longer run it is expected that the partnership as an achievement would result in the reduction of CO2 and other polluting emissions. It would also result in the reduction of energy costs as well as to the increase of the competitiveness of the solar industry which is currently facing difficult economic challenges.





Way forward

42

- **Process and work repartition:** the clarification of the work was a key point of the discussion as it is now clear how the process can be implemented in an efficient fashion
 - There will be many different stakeholders involved, starting with the main one and most important, the Regional Government of Extremadura, advised by their energy agency AGENEX.
 - One of the experts hired by JRC that is working jointly with them is CIEMAT. Its energy systems analysis unit is providing all the information on EU cooperation mechanisms and advising on these matters.
 - The second expert hired is IDEA Consult, in charge of mapping EU regions, industries and research centres that may be interested in participating in this project.
 - Technical support will be provided by AGENEX working jointly with ESTELA, the European Solar Thermal Electricity Association, who support the initiative of recovering Europe's leadership in the field of solar energy.
- Bilateral contacts: it is necessary to undertake bilateral contacts to make sure that the value
 proposition is well communicated and that all convincing possibilities are being exploited with each
 person reached out to during the process
- **Mapping:** all participants agree now that knowledge is missing to step up and go ahead with the project. Thus, implementing a mapping and following the 'hot leads' in that respect sets a first key milestone.









Next steps

Next six weeks

- The representative from the Ministry of Economy and the IPTS should communicate their sources to the Expert in charge of the mapping
- Feedback should be provided by relevant colleagues to the sub-contractor in charge of the first Business Plan deliverable
- A value proposition will be defined at the EU level, but most important at a National (Spanish) level, and possible MS interests will be explored by CIEMAT-JRC based on the mapping's results.
- The second partnership meeting will take place in 5 to 6 weeks-time. Extremadura Region supported by AGENEX will be in charge of setting the date and the agenda of this event and inviting the regions that will take part in this event. With the aim of getting a more solid commitment from their behalf and defining in a clearer way their interests in the partnership.
- The Expert shall provide a mapping and inputs/feedback to the Workshop agenda
- The Regional Agency for Energy organizes a Workshop and should communicate the date and location to the Expert
- For this to happen, the EU mapping will have progressed enough to identify new regions that will be invited to the event. IDEA Consult will be the entity responsible of providing this information (EU regions, MS, private industry and European research centres)
- A touch-base teleconference should be held to draw upon those first steps and make sure that the results of the mapping and of the first workshop can be drawn upon for the next step.

Next six months

43

- In the next six months, the final techno-economic configuration should be explored: plant's characteristics, possible participation of the commercial and the R+D concept, if the price gap can be covered by innovative blending, etc. Depending on the answers to these questions, the best solution will be defined.
- In order for the best decisions to be taken, a strategic business case will be carried out and completed in this period of time. Serving as a guidance tool and providing helpful information to define the project.









Definition of Project. => 100 mw CSP plant (with hybridischer) with a R+D component. (Interfor No RES Supplit in Spain to over app 3. This plant will have multiple benefits at the EV level #= => COWER GAP 3. This plant will have multiple benefits at the EV level #= => COWER GAP 3. This plant will have multiple benefits at the EV level #= => COWER GAP 3. This plant will have multiple benefits at the EV level but made in porter boundable? He What are the enclosing conditions? (Rustion /Motivation := = || How can we trake this project boundable? He What are the enclosing conditions? Wavious possibilities that will determine the next action plane. Next Steep Charton PLAND. Method of the project and estimate the GAP amount (Notional) 3. Geptore the possible financing instruments based on the project dataeteristics / displaybility 3. Geptore the possible financing instruments based on the grouped characteristics / displaybility 3. Geptore the possible MS interests leaded on maping for the starts of the project spanish level (in case brooked off-taker 3. Geptore who will buy the electricity / leave wheel is fearable (in case brooked off-taker 3. Geptore who will buy the electricity / leave wheel is fearable (in case brooked off-taker 3. Geptore who will buy the electricity / leave wheel is fearable (in case brooked mits of the project of taken for the fragment of the project of the foarts (means) 3. Geptore who will buy the electricity / leave wheel is fearable (in case brooked off-taker 3. Geptore who will buy the electricity / leave wheel is fearable (in case brooked mits addition of the project of the project (in case brooked off-taker 3. Only a value possible MS indecests based on maping for the factors (means) Bilaking + (on the brooked off-taker 3. Only are value possible MS indecests leaved on maping for the provide off-taker (in case brooked off the munitar) 4. Folicy BelleF

Additional Photos











Original Report of the Solar Energy Challenge emerging prototype

Name of the Challenge: Innovative interregional financial instruments for commercial-scale demonstration projects (FOAK) in the field of renewable energy.

Challenge Owner: Junta de Extremadura (represented by AGENEX)

Facilitator: Jonas Klevhag

Date: 19.10.2017

Name of the Proposal

Development of a 100MW hybrid solar plant that includes CSP and PV technologies to export solar energy from Extremadura to other EU regions or Member States so they can achieve their EU RES targets. This plant will run commercially but will also include a research and innovation centre to test and keep on developing this technology.

Description of Proposed Actions [Action orientation is extremely important]

- Complete a detailed Business Plan to study the feasibility of the project.
- Analyze how the European Renewable Energy Directive can have an impact in our project.
- Deepen the knowledge on Cooperation Mechanisms, relying on an expert.
- Carry out a survey of regions that may be interested to take part in this project with a specific objective, that could be as an off-taker to import the energy to a region with a high industry in the sector or just willing to take advantage of the research facilities.
- Find out more about financial opportunities and issues related to the project, as could be construction costs, produced energy price and so on.
- Set a second partnership meeting to gather interested regions and sign a letter of agreement.

What will this achieve? What is the societal impact?

The completion of the proposed actions said before will achieve a greater view of the project's possibilities. Not only from a feasible point of view, but also going into detail of what necessarily needs to be analyzed in order to move forward.

It will not only help expand our knowledge on financial and legal aspects, but involving experts in different matters, will broaden the skills that will be working on the project, combining complementary strengths and research capacities to overcome difficulties and obstacles.

This STE plant will have multiple impacts and benefits at the EU level, National level and Regional level.

Who is Responsible?

The entity ultimately responsible for the challenge and the project is the Regional Government of Extremadura. This is who will be in charge of spreading and coordinating the workload, hiring the experts if needed, and reaching out to other EU regions.

Who will be involved? (In Society? In the Challenge team?)









- There will be many different stakeholders involved, starting with the main one and most important, the Regional Government of Extremadura, advised by their energy agency AGENEX.
- One of the experts hired by JRC that is working jointly with them is CIEMAT. Its energy systems analysis unit is providing all the information on EU cooperation mechanisms and advising on these matters.
- The second expert hired is IDEA Consult, in charge of mapping EU regions, industries and research centres that may be interested in participating in this project.
- Technical support will be provided by AGENEX working jointly with ESTELA, the European Solar Thermal Electricity Association, who support the initiative of recovering Europe's leadership in the field of solar energy.

Description of the best ideas

- A good idea that came out from the Innovation Camp is the intention of collaborating with a Finnish region that currently develops this solar technology, but due to their climate and solar conditions don't have the chance to test it on site. They showed their interest in the project specially because of the R+D component.
- The initial idea was that off-takers should be EU regions willing to meet their RES targets, but the idea came up that off-takers could also be private corporations (national or foreign) willing to become "greener" including a high percentage of renewable energy in their consumption. A few examples were considered.
- To explore the possible financing instruments based on the project's characteristics and eligibility. Focusing on how to cover the gap between the plant's production price and the pool price, estimating beforehand the amount of this gap, by defining the techno-economic configuration of the project.

1st Steps: What must happen in the next 6 weeks?

Who should do what?

- The second partnership meeting will take place in 5 to 6 weeks-time. Extremadura Region supported by AGENEX will be in charge of setting the date and the agenda of this event and inviting the regions that will take part in this event. With the aim of getting a more solid commitment from their behalf and defining in a clearer way their interests in the partnership.
- For this to happen, the EU mapping will have progressed enough to identify new regions that will be invited to the event. IDEA Consult will be the entity responsible of providing this information (EU regions, MS, private industry and European research centres)
- A value proposition will be defined at the EU level, but most important at a National (Spanish) level, and possible MS interests will be explored by CIEMAT-JRC based on the mapping's results.

Prototyping: What must happen in the next 6 months?

Who should do what?

- In the next six months, the final techno-economic configuration should be explored: plant's characteristics, possible participation of the commercial and the R+D concept, if the price gap can be covered by innovative blending...and depending on the answers to these questions, the best solution will be defined.
- In order for the best decisions to be taken, a strategic business case will be carried out and completed in this period of time. Serving as a guidance tool and providing helpful information to define the project.









Impact in 6 Years

The main impact during the next 6 years would be the actual construction of the solar plant. As long as the previous obstacles are tackled, and the technical, legal and financial challenges are analyzed and solved, taking all the variables into account.

Other relevant information

A key message that must be transmitted is the need to maintain the leading role in concentrated solar power in Europe. Finding the best resources to make its construction bankable.











Bioenergy Challenge emerging prototypes

Bioenergy Report

Name of the Challenge: Engaging members of the rural communities as innovative stakeholders in bioenergy ecosystems

Challenge Owner: Ilari Havukainen & Rafael Ayuste Cupido

Facilitator: Pleun Schimmelpennink

Date: 11-12 October 2017

Name of the Proposal

Engage stakeholder to allow the implementation and funding of bioenergy projects

Description of Proposed Actions [Action orientation is extremely important]

- In order to promote the participation of regions in the partnership and promote stakeholder engagement, we explored some possibilities within an umbrella of Interreg projects. More specifically, the Central Europe & Baltic See & South West Interreg projects were explored.
- Each Interreg project will focus on a specific element e.g. one project will focus on setting up the European Bio Brains Energy Innovation competition; a second project will focus on developing the process to identify & collect good practices; a third project will focus on designing the process of engaging stakeholders.



What will this achieve? What is the societal impact?

The Interreg projects will explore solutions to manage stakeholders in bioenergy ecosystems when there is a conflict and to keep ownership to citizens.

• These projects will allow to exchange best practices and to develop a communication tool to communicate on energy innovations. The tool will be useful for sending out a powerful message for a long time.

Societal impact:

- Municipalities' harvest the local expertise to create new innovations in bioenergy sector
- Knowledge increase in the entire EU on bio energy
- More people that want to develop the bio energy sector

Who is Responsible?

The partners of the partnership











Who will be involved? (In Society? In the Challenge team?)

- The partners of the partnership that are located in the geographical area covered by the respective Interreg projects
- Biomass resource people and investors
- Local community and stakeholders

Description of the best ideas

We envision to engage in three Interreg projects in which complementary solutions will be explored. All projects will have the same general theme, namely engaging members of the rural communities as innovative stakeholders in bioenergy ecosystems, but each project will have a specific focus:

One project will focus on the Bio Brain competition

- Municipalities would send best experts from their area to competition on bio energy
- Evaluate on different aspects of innovation, make new biomass sources available, etc.;
- Evaluation will happen at several levels:
- Project concept
- Planning
- Realization
- Operation

49

FUT●UЯ

- The competition would have 3 kind of winners:
- First, regional winner (with press release)
- Second, national winner
- Third, European winner
- The European winner would be associated with an award gala

One project will focus on the identification of best practices

- First step is the identification from different sources (from Interreg, H2020) and examine these projects to look for good examples of civil society engagement. This would entail doing some mapping and performing a literature review.
- The second step is to move on to a categorization of good practices cases based on education (maybe focus on technology), involvement of citizens
- The third step is the adaptation to the various regional context of regions
- The fourth step is implementation and finding funding like a good practice example on crowdfunding or citizen investment in bio projects. It is important to find a solid prepared business model leading to a bankable project (even if it is financed by public, citizen money). It is also important to visualize, to inform citizens through village visits, to bring information on projects to the wider society
- The fifth step is to assess the intervention e.g. exchange the information in different regions, adopt it to their individual regional context, assess what has happened after the implementation, and then move to the next group of regions.

One project will focus on designing the process of engaging stakeholders

Technical Report | Brussels Energy Innovation Camp 11-12/10/2017









- In the first phase, it is important to let stakeholders understand the process, the project and the interaction between them. In addition, several meetings should be organised to foster the interrelationship between citizens and policy makers.
- In the second phase, the engagement of stakeholders needs to be defined. Policy makers never hire a professional in communication or a broker, although it is often necessary to contract professionals to define the milestones, to be familiar with the process to engage people.
- The third phase is the implementation phase. In implementing the most important ideas, it is crucial that the ideas remain open to all people.
- The fourth phase is the exploitation phase, in which it is important to keep on explaining the ideas to people, to engage the office and inform people.
- The fifth phase is to find new goals for the future, to bring new project in the interest of everyone, building upon the current initiative and lessons learned.

1st Steps: What must happen in the next 6 weeks?

Who should do what?

- Check which regions are interested to become involved in a proposal of an Interreg project
- Find regions that are willing to lead the Interreg project
- 20/10: first concept note should be ready and the interest of leading partners should be clear
- 10/11/2017: core partnership is consolidated
- A draft final proposal should be ready by mid-January
- Set up the communication tool for the European Bio Brains Energy Innovation competition

Prototyping: What must happen in the next 6 months?

Who should do what?

- Central Europe Interreg has a deadline on 25 Jan 2018
- Baltic see Interreg has a deadline of 9 April 2018
- Watify conference to identify success stories (location could be Bavaria or Hungary)
- Organize a competition on regional and national level
- A grant should be given in the beginning to give the competition a kick start
- The competition would need 2 million Euro, for 4 years. This would allow to give 5 prizes in 10 regions, leading to 50 individual prizes.
- The EU Committee of regions could be involved to provide funding

Impact in 6 Years

This is a good way to find best practices from everywhere, connecting local communities with stakeholders and civil society.

It will save money and allow to acquire new skills & new competencies.

Other relevant information











Bioenergy Draft Interreg proposal on Bioenergy

Project idea name	APPROVE Bioenergy Advancing Public Participation and stakeholdeR engagement fOr the improVEment of Bioenergy policies in Central Europe regions		
Organisation	Poliedra – Politecnico di Milano		
Contact name	Alessandro Luè Alessandra Cappiello		
Email	alessandro.lue@polimi.it	alessandra.cappiello@polimi.it	
Telephone number	+39 02-23992905	+39 02-23992904	
Priority and	 Priority axis 2: Cooperating on LOW CARBON strategies in Central Europe Specific objective 2.2: Improve territorial based low-carbon energy planning strategies and policies supporting climate change mitigation 		
objective			
What is the aim of the project idea? (What are the issues, problems, opportunities you want to address?)	Specific objective 2.2: Improve territorial based low-carbon energy planning strategies and policies supporting climate change mitigation Renewable Energy Sources (RES) contribute to sustainable development, protection of the environment and citizens' health, and climate change mitigation through the reduction of greenhouse gas emissions. However, Lengthy administrative procedures constitute a major barrier and are costly. One of the main challenge is related with the localization and permitting procedures for RES power plants, which has sometimes faced the opposition of local communities, resulting in a slower growth. While there is a great consensus in society that RES development is needed for a successful low-carbon transition, single development projects often face local opposition. This is related also to the local impacts of renewable energy infrastructures on the environment (e.g. landscape, land use, ecological connectivity, biodiversity). The proposal will focus on Bioenergy. In line with the EU goals, bio-energy represents about two-thirds of the renewable energy production in the European Union and is one of the main energy sources contributing to fulfil the 20% objective with renewables for 2020. As regards bioenergy, a specific problem is related with the value chain of the biomass, from the point of view of the producers. For instance, the regional or national production of biomass (e.g., pellets) in some areas is insufficient compared with the local demand. Therefore, the involvement of stakeholders and the public. Experiences in different European regions show that stakeholder snat the public. Experiences in different European regions show that stakeholder engagement in the early phases of the decision process may reduce conflicts and facilitate participation and public acceptance. Moreover, local citizen participation in renewable energy projects through renewable energy communities has resulted in substantial added value in terms of local acceptance of		











	the more crucial in a context of increasing renewable energy capacity in the future. While it might be unrealistic to gain the consensus of all actors involved (acceptance of final result), the rationale of stakeholder engagement is to foster people to accept the outcome of a dialogue and permitting process if they consider the procedure to be transparent, participatory and fair (acceptance of procedure).
	The project APPROVE bioenergy is framed within the Bioenergy Smart Specialization Strategy partnership (<u>http://s3platform.jrc.ec.europa.eu/bioenergy</u>). Because bioenergy is a common priority of smart specialisation for several regions across EU, in 2016 the smart specialisation platform on energy has supported the creation of an interregional partnership for bioenergy and smart specialization.
	This bioenergy partnership is led by the regions of Lapland (FI) and Castilla y Leon (ES) and engages the participation of other 14 regions committed to being frontrunners in developing forest-based as well as non-food agriculture-based bioenergy as the basis for sustainable regional growth. In line with the EU goals, bio-energy represents about two- thirds of the renewable energy production in the European Union and is one of the main energy sources contributing to fulfil the 20% objective with renewables for 2020.
What are the planned activities and expected results?	European Regions face many interrelated common challenges: demand for bioenergy, environmental sustainability, involvement of the value-chain stakeholder, and public opposition. The project will pursue a transnational dialogue to tackle such challenges in decision-making for regional energy planning, considering innovative spatial and socio- environmental assessment methods, stakeholder engagement and citizen participation . The project will involve partners from 5-6 different regional areas of Central Europe, that will cooperate for the development of a common set of tools. The public authorities involved in the project (PP together with AP) will promote the application of such model in their respective areas.
	 Expected activities development of better spatial and socio-environmental assessment methods, stakeholder engagement and citizen participation; implementation of pilots; training tools and activities; recommendations for policy instruments.
	 The following main project outputs are envisaged: Transnational guidelines for the promotion of bioenergy on different scales (regional, municipal, single projects) incorporating alternative policy instruments such as regulatory incentives, collaborative management and business models built on participatory methods and shared responsibility; efficient public awareness raising and informal education tools; Practical training material for regional and local authorities and project proponents; Local strategies for circular urban water use/ water efficiency action plan incorporating
	 the elements of the above guidelines tailor-made to local needs and challenges, relying on a common manual also replicable in other CE cities; Open innovation platforms for exploring new, creative and grassroots initiatives
52	

Technical Report | Brussels Energy Innovation Camp 11-12/10/2017









	 tackling collaborative / cooperatives practices; Local/regional pilot actions implementing and maintaining bioenergy actions. Examples may concerns pilot activities and joint investments based on decentralized renewable solutions (e.g. wood chip or biogas CHP plants), second generation biofuels, produced mainly from lignocellulose biomass, residues or waste,
Partners involved at this stage	 Poliedra – Politecnico di Milano (private no-profit research partner) Zentrum fuer Soziale Innovation (ZSI) – (private no-profit research partner) The invitation to join the proposal is initially sent to all the Regions that participate to the S3 bioenergy partnership located in Central Europe area Moreover, Regional Council of Lapland and EREN (Regional Energy Agency of Castilla y León), leader of the Bioenergy S3 Energy Partnership, are interested in collaborating and participating to the project (being outside the Central Europe programme area, the formal framework of their participation is to be defined).
Type of partner I am looking for	Public authorities at regional and local level
ls your project a follow-up project?	 FP7 - INSPIRE-Grid (Improved and eNhanced Stakeholders Participation In Reinforcement of Electricity Grid) <u>www.inspire-grid.eu</u> H2020 Smart Cities and Communities lighthouse project - Sharing Cities <u>www.sharingcities.eu</u>

An introduction to Interreg CENTRAL EUROPE Programme 2014-2020, Call 3, SO 2.2

The Interreg Central Europe Programme (CEP) is a European Union funding programme that encourages transnational cooperation beyond borders in central Europe.

The targeted call topic of Call 3 is the following:

PRIORITY AXIS 2 - Cooperating on low carbon strategies in CENTRAL EUROPE

Specific objective 2.2: Improve territorial based low-carbon energy planning strategies and policies supporting climate change mitigation

Under SO 2.2, the Programme seeks for projects that improve capacities for territorially-based energy planning in central Europe. Enhanced cooperation will enable coordinated local and regional approaches to formulating and planning low-carbon energy strategies, which is key to the uptake of renewable energy measures.

Transnational cooperation shall help building new knowledge as well as exchanging existing knowledge and experiences between and within regions concerning the planning, financing and implementing of concrete actions to deliver sustainable energy measures. It aims to improve the capacity of the public sector and related entities, as a key starting point for mobilising investment for low-carbon measures at territorial level. Transnational cooperation will thereby contribute to triggering activities especially in regions with a









lower usage of their renewable energy potentials. Furthermore, it will support the linking of approaches between the demand and supply sides, taking into account the quality and capacity of energy distribution grids. This shall be achieved through strengthening the knowledge and planning capacity of the public sector and related entities that facilitate the transition towards 'Sustainable Energy Regions'. The programme will support them in the development and implementation of innovative local and regional energy planning strategies leading to an enhanced use of endogenous renewable energy potentials in a balanced way and to a reduction of CO2 emissions. This will in many cases also imply positive effects on air quality.

The main result envisaged can be summarised as: "Improved capacities of the public sector and related entities for territorially based low-carbon energy planning and policies in central European regions achieved through transnational cooperation".

The supported actions shall build on transnational cooperation for improving capacities of the public sector and related entities. This will enable them to develop integrated local and/or regional strategies and plans for a better use of endogenous renewable energy potentials and for improving regional energy performances. Actions supported shall combine demand and supply sides and focus on strategies, policies, tools and new solutions for the exploitation of renewable energy resources as well as for increased energy efficiency.

The implementation of pilot actions and exchanges of good practices will stimulate and trigger investment towards low-carbon development. Coordinated strategies for improved interconnections of energy networks will enable a better integration of renewable energy sources into the existing distribution networks and consequently open the opportunity for an increased production and use of renewable energy.

All the supported actions will clearly contribute to the improvement of capacity of the public sector and related entities for an increased and balanced use of endogenous renewable energy potentials and for an enhanced energy performance in central European regions. Moreover, they will contribute to the improvement of territorially based energy planning strategies and policies supporting climate change mitigation. It is to be emphasized that the programme will not support actions and/or pilot investments having a negative effect on the environment (e.g. hydropower plants affecting the ecological status of water bodies, emissions of biomass installations etc.).

Examples of actions supported within SO 2.2 are:

- Developing and implementing integrated territorial strategies and plans to increase the use of endogenous renewable energy potentials and to improve regional energy performance

- Designing and testing concepts and tools for the exploitation of endogenous renewable energy resources

- Developing and implementing territorial strategies to improve the energy management in both the public and the private sector (especially in SMEs)

 Developing demand-focused strategies and policies to reduce energy consumption (e.g. smart metering, distribution of smart consumer applications, etc.)

 Developing and testing solutions for improved interconnections and coordination of energy networks targeting the integration and use of renewable energy sources









Programme area

The programme area consists of all regions from Austria, Croatia, the Czech Republic, Hungary, Poland, Slovakia and Slovenia, as well as eight Länder from Germany (Baden-Württemberg, Bayern, Berlin, Brandenburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt, Thüringen) and nine regions from Italy (Emilia-Romagna, Friuli Venezia Giulia, Liguria, Lombardia, Piemonte, Provincia Autonoma Bolzano, Provincia Autonoma Trento, Valle d'Aosta, and Veneto).

Eligibility of partners

- National, regional and local public bodies;
- Private institutions, including private companies, having legal personality;
- International organizations acting under the national law of any CENTRAL EUROPE Member State or, with restrictions, under international law.

Budget

The planned budget size is approx. 2 million EUR with partner budgets ranging between 150.000 – 250.000 EUR.

Partner budgets are subject to the roles and tasks undertaken during the project implementation. The project actions are broken down to work packages (WPs), the WPs to activities. Each WP and activity has a leader from the partnership, who is responsible for the coordination of the respective part of the project.

The following **co-financing rates** shall apply:

- Up to 85 % ERDF financing for applicants of Croatia, the Czech Republic, Hungary, Poland, Slovakia, Slovenia; 15% is to be provided as own contribution;
- Up to 80 % ERDF financing for applicants of Austria, Germany, Italy; 20% is to be provided as own contribution;
- Up to 80 % ERDF financing for applicants located in EU regions outside the Interreg CENTRAL EUROPE Programme area; 20% is to be provided as own contribution.

National public co-financing (state contribution) for the own contribution of partners is provided in some countries (e.g. Hungary, Italy). To find out what are the currant co-financing rates in your country, please contact your National Contact Point

(http://www.interreg-central.eu/Content.Node/contact/Contact_Overview.html)

Eligible costs

55

- staff costs + office and administration (15% flat rate of staff costs) cca. 50% of project budget
- travel and accommodation cca. 10% of project budget
- external expertise maximum cca. 30% of project budget
- equipment maximum cca. 5% of project budget









• smaller infrastructure and works (in duly justified cases only) – maximum cca. 5% of project budget

The **reporting** process is based on 6 month long reporting periods and coordinated by the Lead Partner (each partner creates reports on national level, and based on them the LP prepares a joint progress report and payment request). **Reimbursement of costs** to the LP and project PPs is due only after the approval of the progress report by the Programme bodies (i.e. no advance payments are done by the programme, but partners have to prefinance their activities which are then paid back /according to the co-financing rates relevant for the given country/ by the Programme).

Schedule

Project duration: The planned project duration is 36 months with a start date in early 2019. **Deadline for submission:** 25 January 2018

Administrative tasks

Partners are requested to submit a **"Partner and State Aid Declaration"** signed by the legal representative including a co-financing statement on own contribution.

In case internal authorization is required related to the own contribution, the relevant institutional (e.g. council) decision has to be made before the date of submission.



Annex E: Images and photo album from the workshop

The Energy Innovation Camp organisation, training and implementation has been documented also on a Flickr photo album that collects all the images and spirt of the event.

SMART SPECIALISATION PLATFORM

#S3PEnergy

Images are worth more than a thousand words, follow the link to view them!

https://www.flickr.com/photos/ideai/albums





57







































Annex F: FUTOUR

FUTOUR is an innovation firm that uses human centered, design based approaches to help public and private organisations grow, innovate, change, develop capabilities, build business and shape the future in an effective and sustainable way. FUTOUR is specialised in rapid prototyping of future products, processes and services, in problem solving and decision, strategy and policy making. It facilitates people and organisations through high touch and high tech creativity techniques and participatory methods developed with the most advanced international creativity and innovation accelerators, Future Centers and Living Labs, through bottom-up user driven design. FUTOUR is the first global mobile Future Center leading projects and programmes with an extensive network of process consultants and facilitators. Over the years, hundreds of thousands of key stakeholders have been engaged in participatory design workshops, helping organizations and



society to prepare for future challenges, creating collaborative spaces that strengthen creative processes and transform ideas into actions. Dialogue and leadership are keywords. FUTOUR believes strongly that in its innovative and systemic approach, there is the promise to sustainable answers for current complex questions: as Einstein said, "we cannot solve our problems with the same thinking we used when we created them".

With over twenty years of experience in participatory design, facilitation and organisation of interactive workshops in more than 30 countries around the world, FUTOUR organises collaborative meetings that strengthens the creative processes and help organisations and society prepare for the challenges of the future.

The participatory workshops designed by FUTOUR:

- Put the user and people at the centre of the innovation and design process. Accelerate knowledge sharing and decision-making processes.
- Stimulate the involvement in and shared planning of development and systemic innovation.
- Develop innovative projects by focusing on different points of view and best practices to achieve sound and sustainable results.
- Create processes and projects that generate benefits and are consistent in terms of deadlines, strategies and means.
- Raise awareness and stimulate concerted ideas and guidelines for future projects, as a means of contributing to local and regional system competitiveness and innovation;
- Enhance the preparation and methodology of thematic working groups.
- Improve the engagement, imagination, creativity, and concreteness of the participants.













FUTOUR integrates the following dimensions:

METHODOLOGY: planning meetings and venues in which, supported by dedicated staff, clients can work on their projects applying best practice procedures and methodologies for the vision, creation, formulation, analysis and formalization of their ideas. Futour uses and applies innovative methods and tools to solve problems and develop strategies, products, services and policies (EASW, GOPP, OST, Electronic Town Meetings, Focus Groups, Knowledge Safaris and Cafés, Fast Prototyping, Lego[®] Serious Play[®], Camps for Societal Innovation).

RELATIONS: drafting studies on systems that favor relations, interaction and collaboration between clients and/or centers of excellence and territorial systems via the organization of networks of vision and inspiration sharing. FUTOUR partners' well-established, long-term international contacts and experiences enhance the relational capital.

SPACE: consulting for dedicated venues with solutions for design, layout, construction materials, lighting, scents, sounds, furnishings: all studied to favor the development of creative and collaborative attitudes. FUTOUR provides flexible solutions, services for dynamic and fixed-site projects, minor and major events, client venues and prestigious locations. Like a starfish, our team is equipped to move knowhow and tools right where problems need to be faced and solved, harmonizing spaces to foster creative processes.

TECHNOLOGY: technologies and contents capable of supporting users during co-creative innovation workshops (Digital Mosaic, content/knowledge mining platforms, hyper-connectivity, electronic brainstorming, virtual reality). By using technologies, FUTOUR accelerates facilitation, contents collection and strategic decision-making.

The Futour team's partners and experts have twenty years of experience in participatory planning and in the study and dissemination of facilitation and creativity techniques. The Team adopts the "Commedia dell'arte" and the Circus metaphor, with the members of the team acting out different roles according to the different sites and contexts in which they operate. The Futour team includes experts in improvisation with functions combining the art of facilitation with scientific research, architecture, cuisine, management, psychology, literature, sports, painting, dance, urban planning, singing, politics, foreign languages, history and a lot of (serious) play.

If you have great challenges, want to play the future, and want to know more about FUTOUR's co-creative activities supporting strategic and participatory decision making contact us: <u>info@futour.it</u>, web: <u>www.futour.it/english</u>, Tel: +39 3405927047 and Twitter @FUTOUR.

