

RegEnergy Final Conference

Renewable Energy Regions

A REINFORCED TERRITORIAL COOPERATION
FOR A SUCCESSFUL ENERGY TRANSITION

18 May 2022

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The Conference in a Nutshell

The final conference of the RegEnergy project, labelled as an event organised under the French Presidency of the European Union, took place in Brest, France, on 18 May 2022.

More than 110 actors of the energy transition in France and in Europe - partners and representatives of the European institutions, local elected members, territorial agents, representatives of energy unions, renewable energy professionals, academics and many more - gathered at Océanopolis to discuss the strengthening of territorial cooperation for a successful energy transition.

The final conference allowed on the one hand making an assessment of the exper-

iments implemented within the framework of the project and their impacts, both at the local and North-West European levels. On the other hand, the conference was an excellent opportunity to discuss the issues and strategies implemented by European, national, regional and local authorities and the perspectives offered by cooperation between urban and rural areas.

The day was punctuated by different moments of exchange during the “poster session” by the RegEnergy partners, the insight into Océanopolis’ energy retrofitting works and photovoltaic self-consumption or the visit of a part of the Océanopolis aquarium.



Welcome by Tristan Foveau, Vice-president in charge of Energy and Waste, Brest métropole



As Vice-President in charge of sustainable waste management and energy operators, Tristan Foveau warmly welcomed the whole participants for coming to Brest. He re-reminded of the important role the European Union plays in Western France in the development of local strategies for the energy transition and related local projects.

The energy transition can support territorial projects that pursue environmental

objectives and at the same time contribute to economic development as well as to the strengthening of inter-territorial solidarity. In Brest, the articulation of waste and energy policies is an excellent example: the recovery of the waste heat for the heating network leads to a win-win situation with a competitive cost of waste treatment and low and stable energy cost.

The RegEnergy project has supported and densified the development of renewable energy, a burning issue that directly contributes to reduce the energy dependence of Europe's member states.

RegEnergy moreover perfectly illustrates Brest's integration into European networks, but also the reality of its territorial cooperation at different levels including a reciprocity contract with the Pays Centre Ouest Bretagne. Because of its geographical position, cooperation is a necessity for Brest and is an integral part of its DNA.

Welcome by H el ene Rizzotti, Climate Alliance

H el ene Rizzotti from the Lead Partner Climate Alliance introduced the key aspects of RegEnergy. The project is born out of the fact that North-West Europe is one of the most energy-intensive regions in the EU and the most dependent on fossil fuels because of a low share of renewable energy in its energy mix.

Win-win cooperation between urban and rural areas is an effective solution to increasing the use of renewable energy

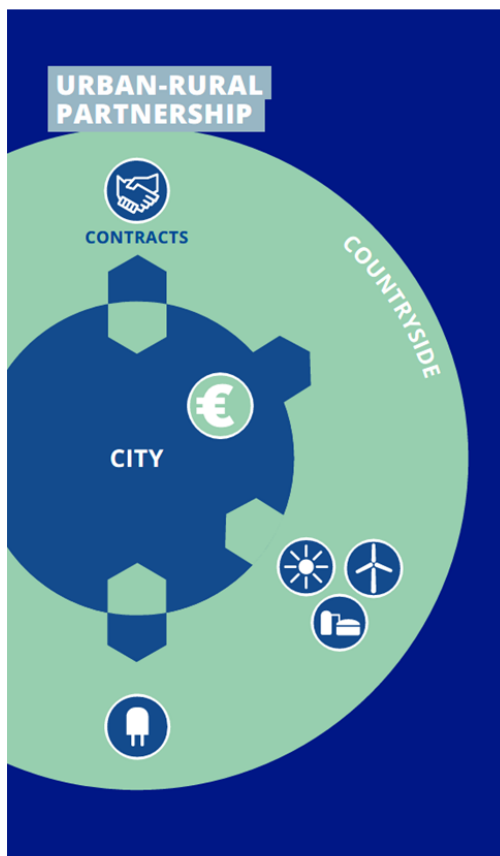


in the region. Urban areas have access to local and green energy, while rural areas generate regional added value through additional income and investment in their infrastructure. Enabling regions to become “prosumers” instead of simple consumers can help them to

reduce their dependence on fossil fuels and thus to gain more autonomy and energy security.

Finally, citizen engagement and energy communities are one of the cornerstones of the local approach and urban-rural partnerships.

Renewable Energy Regions Urban-rural renewable energy partnerships



The idea: benefit for the whole region

Connecting the renewable energy production in rural areas with the high energy demand of cities unlocks potential to reduce emissions in European regions.

Renewable energy partnerships – urban demand & rural supply

Urban areas, especially in North-West Europe, have the highest energy consumption in the European Union and are still depending substantially on non-renewable energy sources. To reach the emission reduction targets, regions need to balance their energy demand with the supply of renewable energy locally.

Hence, urban areas, as heavy energy consumers without significant renewable energy production potential, need to partner with surrounding rural areas to reliably meet their energy needs in the future. Rural areas usually have large capacities to offer renewable energy production, but limited energy consumption.

Renewable energy partnerships – a win-win situation

Renewable energy partnerships create a win-win situation between rural supply and urban demand:

Urban consumers meet their renewable energy demands from reliable regional supplies. Rural renewable energy producers get access to urban consumers.

The region as a whole, benefits from increasing interaction, investment in energy and other infrastructure. A growth impulse can be given by pooling financial and professional resources in the region.

Renewable energy partnerships – promoted by RegEnergy

The project RegEnergy aimed to increase the share of renewable energies in North-West Europe by establishing renewable energy partnerships between urbanised and surrounding rural territories.

The RegEnergy partnership showcases the experiences gained as best-practice.

Working in European Cooperation: Bringing people and ideas together

Within the RegEnergy project nine partners from 7 countries in North-West Europe work together on renewable energy

development through urban-rural cooperation. The cooperation enhances to exchange on different approaches in the

participating countries and helps to adapt local solutions based on the experiences made around Europe.



Climate Alliance

Project support
INFRASTRUKTUR & UMWELT
Professor Böhm und Partner



Roundtable 1: Urban-rural cooperation, a necessity to achieve European renewable energy targets

The latest IPCC report published on 4 April 2022 presents the most relevant solutions for reducing greenhouse gas emissions, including drastic reduction of fossil fuels and increased investment in renewable energy. The revision of the EU Renewable Energy Directive plays a major strategy in the current context of the energy crisis. National, regional and local authorities are already implementing roadmaps to meet the European challenge and complementarities between urban and rural areas are crucial to achieving the objectives of the energy transition.

Roundtable 1 aimed to present the European policy framework and its perspectives and how these are declined nationally and locally to accelerate the development of renewable energy through cooperation.

In a video, Achille Hannoset from DG ENER underlined the general framework of Green Deal, the EU Renewable Energy Directive and the new communication released on this day, May 18th, aiming at enhancing renewable energies. He underlined how important are rural-urban partnerships to achieve the EU renewable energy targets. He mentioned several instruments and tools offered at the EU-level to finance renewable energy project. As an example, we can mention that the Commission recently set up a Rural energy community advisory hub that will provide technical assistance to on-the-ground projects. He recommended keeping an eye on the publication of the calls for application for technical assistance because it could be of relevance for your local level.

Bruno Rebelle, Director of the French consulting agency Transitions briefly described the French national strategies for multiannual energy programming and the National Low Carbon Strategy) which set targets for renewable energy growth. . He claimed that “set-ting an objective is just the first step: the hardest thing is to reach it”. The main barriers encountered are political and organisational. It is necessary to get prepared for an expensive period for energy that requires political change and re-adjustments of targets, avoiding stop-go policies. In terms of cooperation, urban centres consume a lot of energy but also have an energy saving potential. On the other hand, large rural areas have difficulties in saving energy but have renewable energy potential. A dialogue between urban and rural areas would bridge this gap, but is often difficult, mainly due to a lack of mutual understanding. It’s necessary to visualise urban-rural interdependencies to change the points of views.



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For André Crocq, from the Brittany Regional Council, the energy transition will only accelerate if the cost of fossil fuels motivates significant investments in renewable energy. Cooperation is essential at all levels. The role of the regions is also important in planning with the financial resources that come from European and regional funds. Local authorities play an important role as 70 % of concrete actions on energy and environmental transition take place in the territories. Breaking down urban-rural representation must be a priority. Once becoming aware of interde-



pendencies and common objectives “fates are linked - we make a system”.

Glen Dissaux, Vice-President in charge of the Climate Action Plan in Brest métropole, underlined the difficulty to reach carbon neutrality. There is a need for networks, planning and financing, notably at local level that directly faces climate change ef-

fects. The main objectives are to reduce GHG emissions and energy consumption as well as to increase research and development (R&D). An example of the urban-rural partnership is the solar cadastre. Developed since 2017 in Brest, it has been replicated for Pays du Centre Ouest Bretagne (COB) using experiences and engineering resources from Brest métropole. RegEnergy has established a solid basis for long-term cooperation, serving as an example for other territories. Good projects which emerged from the cooperation of Pays COB and Brest métropole can serve as public showcases and majorly contribute to the development of the economy.

Annick Barré, Mayor of Laz and President of the Local Energy Agency of Centre Ouest Bretagne presented the positive energy territory approach. Pays COB is committed to the control of consumption, the development of the renewable energies and the fight against climate change. RegEnergy has enabled the creation of a full-time job dedicated to the development of solar projects. Another opportunity is the wood-based industry, to feed wood boilers for heating networks in the urban areas. Networking is efficient to exchange know-how, capacities and skills and offers rural areas to benefit from metropolitan systems and vice versa. Working locally enables to take good notice of the local problems and circumstances.

Roundtable 2: Renewable energy partnerships - put into practice

One of the main challenges of the energy transition is to match the supply of renewable energy with the current demand. Limitations are linked not only to intermittent energy sources, but also to technology, geographical constraints and sometimes to a complex legal framework. The European Territorial Cooperation Programme “Interreg NWE” offers opportunities for stakeholders from North-West European countries to exchange views and best practices. In this context, the RegEnergy partners from Ireland, Belgium, the Netherlands, the United Kingdom, Germany, France and Switzerland worked together to establish renewable urban-rural partnerships and adapted them to the local context.



Partners from Ireland, Belgium and the Netherlands presented their approaches and lessons learned after overcoming legal hurdles and finding solutions to reconcile locally produced energy from renewable

resources (biomethane, solar, wind and wood) in rural areas with local urban demand. The participants of the roundtable gave an outlook on prospects of the developments initiated during the RegEnergy project. Stefanie Weiner from the Lead Partner support INFRASTRUKTUR & UMWELT moderated the panel discussion.

Paddy Phelan, CEO of the 3 Counties Energy Agency (3cea) in Ireland and Martine Klaver, CEO of Waterstromen Etten BV in the Netherlands both worked on partnerships related to biogas during RegEnergy. 3cea has been implementing biomethane installations at two different sites which have been supplied with biomethane refined by the RegEnergy project partner Ormonde Upgrading. Waterstromen found a solution to make sewage water usable for the energy supply. Both partners agreed to say that the necessary regulations, especially at the regional and national levels, need to be adjusted to achieve the targets in the share of the energy mix of the region. Easing the regulatory framework would create potential for action, since the complex legal regulations are a burden to the implementation of projects. Paddy Phelan states that, with the help of technical professionals, the energy transition can be brought to all-day life and will have a bright future. Martine Klaver added that even though each project has its own problems, technical solutions will become easier to tailor with the experience gathered with every new installation.

Marc Vermeeren from Flux50 in Belgium and Sean Lyons of the Waterford Institute

of Technology in Ireland investigated practical solutions for combining the use of different energy sources and their flexible management within RegEnergy. The case study of a business park allowed Flux50 to test cooperation between different types of energy users and the integration of storage as well as monitoring technologies. The team of the Waterford Institute successfully created a platform that enabled the management and sharing of energy from different sources. For both partners, a successful project needs to be based on a holistic approach and the cooperation between the different stakeholders involved. Moreover, citizens need to be engaged in projects from the beginning to ensure the social acceptance of renewable

energy projects. Studying the amount and usage frequency of different kinds of renewables creates option for optimisation of demand and supply.

As a conclusion of the Roundtable, Peter Campobasso, project officer at the Joint Secretariat of Interreg North-West Europe, quoted RegEnergy as a successful project thanks to the implemented activities and the good transnational cooperation within the partnership. He presented the new programme for the period now starting with an important focus on the promotion of renewable energy generation.



Roundtable 3: Involve local authorities and engage citizens for the energy transition and the benefit of the territories

Local authorities and citizens are key actors in the energy transition and have a leading role in the development of renewable energy in their territories, by driving, financing, participating in the governance of projects and deriving high added value from them. Beyond social acceptability, civic involvement helps to create local dynamics and support for energy projects, including citizens engagement.

Illustrated by examples from the association of local authorities of Kreiz Breizh (CCKB) and Plymouth City Council on public governance of wind farm and on solar renewable energy communities, the speakers discussed the complementarity between local authorities and citizens, thus enabling the development of local renewable energy projects. The discussion was moderated by Els van Praet, project manager at the Belgium NGO Ecopower.



@ Pierre-François Watras

Eric Bréhin and Eric Hamon, from Kreiz Breizh local authority, underlined that the energy transition means to engage with new sources of renewables in the territories. This leads the stakeholders to position themselves, to get involved and to develop required skills. Collective projects represent a benefit economically and socially. Local authorities need to take a lead to develop new partnerships. In Kreizh Breizh, the objective was to link these projects with general public interest, working with municipalities on a step by step approach. Reinforcing the dialogue between developers and elected members and finding a common agreement reduces the risks of projects not being accepted. RegEnergy has built a basis for engineering and further upskilling and involvement of citizens.

Pierre Jourdain, from Énergies Ouvertes, a cooperative society which supports public stakeholders, associations and citizen companies in their renewable energy projects, highlighted that projects in the energy sector are complex and require time and know-how. If created without taking citizens into consideration, they are often poorly accepted and sharing information becomes a real challenge. Engaging people and exciting them about energy transition measures is a great step towards change. Further, the role of public stakeholders needs to be reshaped in terms of public procurement. CCKB for instance has created a 100% public investment company which maintains the three pillars: project

acceptability, real transition and economic wealth that will bring resources to rural communities to invest in transition.

John Green, from the City of Plymouth explained the model of an energy community where local people engage with the support of Plymouth to set up a community organisation and benefit from renewable energy. Community projects have better chance to be successful if driven by local will and considering local requirements. Sharing projects does not only make more resources available but also reduces the risks of conflicts. Since the UK is a peninsula, the space for solar farms is limited and needs to be developed in a constant dialogue with environmental preservation. The cooperation of citizens with authorities and other stakeholders is crucial to use space and know-how efficiently.

Thomas Patenotte, from the Taranis local network, which gathers about 40 members, associations, citizen companies and local authorities in the field of citizen energy, underlined the fact that to make renewable energy projects bigger, inhabitants cannot act on their own but must cooperate in networks. Organising themselves in networks helps to clarify common objectives in terms of distribution of wealth, governance, environmental protection. Projects led by the community have a multitude of interests and target more than financial profit. However, from an economic point of view, citizens' projects have a potential to generate twice as much

added value which remains in the territory compared to conventional projects, for example because of work by local providers.



Christopher Green from Ricardo Energy & Environment, a consulting agency that supports the DG ENER in providing technical assistance on sustainable energy action for rural energy communities in rural areas, enhanced the importance of technical assistance for energy communities. For successful citizen projects competence, skill and capacities need to be built, even more than motivation and acceptance. This is why it is important to identify good practices, provide guidance documents as well as organise networking events supporting citizen projects. Regional and local actors can profit from external support. With the support of professionals, improved energy communities can drive forward national policies.

Insight into Océanopolis' energy retrofitting works and photovoltaic self-consumption

The RegEnergy final conference gave opportunity to have a look on the energetic retro-fitting of the venue which was equipped with photovoltaic panels by Brest métropole to reduce the cities energy consumption. Sylvie Mingant from Brest métropole, Camille Lagarde from Océanopolis, Ludovic Merlère, from Quénéa and Vincent Raoul from Engie presented this project.

Océanopolis is an emblematic high energy-consuming building, with strong potential for self-consumption. It requires constant energy to provide heating, cooling, lighting,

pumping and ventilation for premises, animals, plants and visitors. Berim and partners, an architecture consultancy company and SogSolar, were commissioned to work together on three axes of the energy transition: limiting the needs by reinforcing the thermal insulation of the enclosed and covered buildings, optimising the specific lighting of the basins without damaging the cyclic needs of living beings and finally, the installation of photovoltaic panels. All measures together save 400 MWh per year the equivalent to 20 solar-powered homes.



Poster Slam and Networking

During the poster session RegEnergy partners explained their activities in more detail to small groups of people interested in their specific topic.

Renewable Energy Regions 9 energy partnerships



Showcasing renewable energy partnerships

Organise urban-rural partnerships for renewable energy

A nationwide network for renewable energy regions (Climate Alliance, DE)



Towards a net zero carbon society (3 Counties Energy Agency, IE)



Multifaceted agreement between city and countryside (Brest métropole, FR)

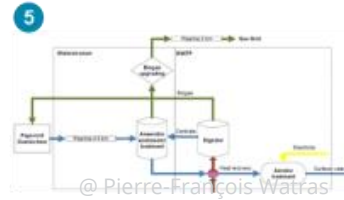


Community-owned renewable energy (Plymouth City Council, UK)



Connect renewable energy producers and consumers

Biogas from waste water supplies industrial consumer (Waterstromen, NL)



Build a supply-demand chain for biomethane (Ormonde Upgrading, IE)



Smart solutions for renewable energy growth

Reliable supply for high demand consumers (Flux50, BE)



Interconnect photovoltaic energy and electric mobility (Planair, CH)



A smart platform to optimise supply and demand (Walton Institute, IE)

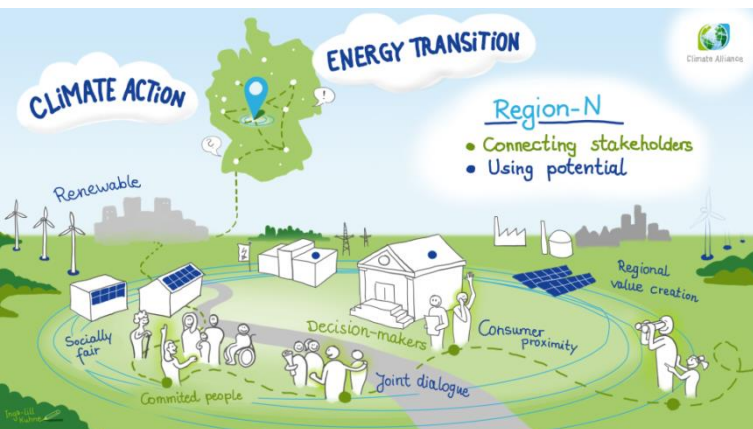


@ Climate Alliance

1

A nationwide network for renewable energy regions (DE) – Presented by Edgar Bazing, Climate Alliance

Climate Alliance supports the transformation of the current German energy supply system towards a renewable, decentralised and citizen-oriented one. Therefore, it created Region-N, an initiative gathering German regional stakeholders committed to the regional energy transition to create a dialogue between German regions, exchange best practices and develop joint campaigns. The goal is for regions to supply themselves 100% from renewables by 2030 and to use their energy-saving potential, thus strengthening climate protection.



2

Multifaceted agreement between city and countryside (FR) – Presented by Sylvie Mingant, Brest métropole

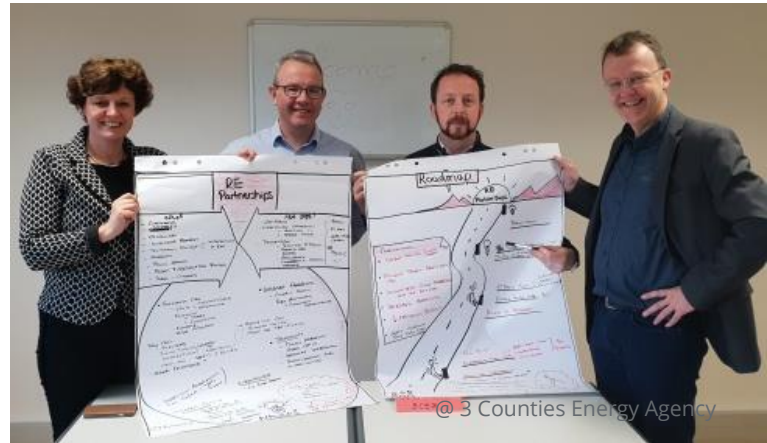
Brest métropole and the county of Central West Brittany signed an experimental contract of reciprocity in 2016. It defines joint workflows for the development of the energy sector and links production of renewable energy in rural areas with consumption of heat and electricity in urban areas. The aim of this experimental approach was to close the gap between urban and rural areas by promoting win-win partnerships for the energy transition. The agreement of reciprocity allows parties involved to overcome institutional and administrative barriers.



3

Towards a net zero carbon society (IE) – Presented by Paddy Phelan, 3cea

3 Counties Energy Agency (3cea) supports counties to reduce their CO₂ emissions in the field of renewable energy. Since South-East Ireland is a predominantly rural region, the potential to reduce GHG emissions with bio-energy from agricultural land, forestry, and waste residues is significant. 3cea established a partnership with public customers to identify a number of sites that could use upgraded biogas (biomethane) as a sustainable solution for energy supply. The provision of biomethane for gas fuelled heating boilers was carried out by Ormonde Upgrading.



4

Community-owned renewable energy (UK) – Presented by John Green, Plymouth City Council



Plymouth City Council has established an independent community energy organisation (Plymouth Energy Community) that is developing new approaches to local energy generation, ownership and use. Two rural energy communities have engaged in solar projects from which profits go back to support the community. Cooperation between rural producers of electricity and consumers within cities profit from the available land for PV-installations in the countryside.

5

Biogas from waste water supplies industrial consumer (NL) – Presented by Martine Klaver, Waterstromen Etten BV

Waterstromen Etten BV worked on the case of a paper mill Doetinchem (NL). The aim was to treat the water of the paper mill in an innovative water treatment installation at the waste water treatment plant generating renewable energy and supplying energy back to the paper mill and inhabitants of Doetinchem. To reach this goal, piping has been realised between the paper mill and the waste water treatment plant for transporting the water from the paper mill separately from the communal waste water to the waste water treatment plant location.



6

Build a supply-demand chain for biomethane – Presented by Michael Murphy, Ormonde Upgrading Limited

Even though the use of biomethane can contribute to decarbonisation and energy safety, the biogas/ biomethane industry in Ireland is underdeveloped. Ormonde Upgrading Limited developed an alternative off-grid system supply-demand chain to unlock the potential of biomethane and overcome grid related challenges. The local off-grid partnership delivers biomethane from the producer Ormonde Upgrading, directly to its customers using special transportation and storage equipment thus providing its customers with access to renewable energy.



@ Ormonde Upgrading

7

Reliable supply for high demand consumers (BE) – Presented by Marc Vermeeren, FLUX50

The Green Energy Park (GEP) in Zellik, Flanders aims at facilitating renewable energy to cover the electric and thermal demand of over 70 companies, a data centre and a nearby residential area. The GEP is equipped by a large electric grid and will be equipped with a low temperature thermal grid. The energy production from the local companies needs to be engaged, collected and modelled in order to balance the supply and demand within the microgrid of the GEP. The project tries to overcome technical challenges in order to make microgrids environmentally and economically interesting for companies.



@ Flux50

8

Interconnect photovoltaic energy and electric mobility (CH) – Presented by Geoffrey Orlando, Planair

The Swiss policy of self-consumption, in conjunction with the ongoing developments of e-mobility (Vehicle to Grid), offers a unique opportunity to develop business models for the coordinated use of photovoltaic (PV) and electric mobility. In Yverdon-les-Bains, the local

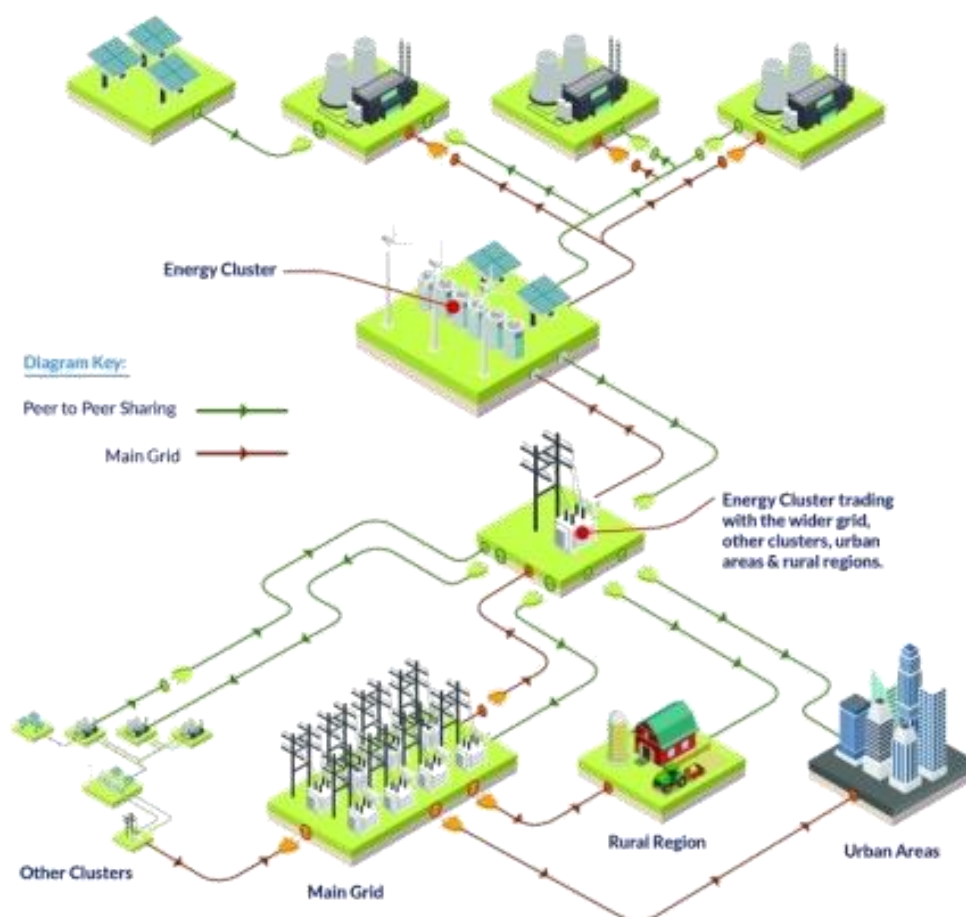
DSO is studying the opportunity presented by the large-scale deployment of electric vehicles at a point on the grid for the optimised integration of photovoltaic production. This would enable people in remote rural and urban areas to intelligently and flexibly charge their electric vehicles with locally produced, low-cost solar energy with V2G capacities.



@ Planair

A smart platform to optimise supply and demand (IE) – Presented by Sean Lyons, Walton Institute of the Waterford Institute of Technology

In the rural Dingle area, on the western coast of Ireland, industries and offices of the regional authority Údarás na Gaeltachta add up to a substantial electricity consumption. To facilitate the integration of renewable energy at these distributed sites, innovative smart grid processes and a legislative framework are necessary, enabling the regional actors to function as Energy Communities and take control of their energy use as prosumers. The Walton Institute of Waterford Institute of Technology designed a software platform to optimise renewable energy production, battery storage and consumption with variable market prices.



Closing speech

To close the conference, Valérie Soret from the Directorate for the territories and the sea in the French Finistère area (*Direction départementale des territoires et de la mer du Finistère*) and Gilles Deotto from Enedis, the French Electricity Distribution System Operator, underlined the important notions of "energy communities" and "partnership". They emphasized the benefit of assembling different stakeholders within renewable energy projects to let each of them contribute their part to the common objectives. They highlighted the fact that, cooperation will have a positive impact on the territory and environment and that common governance is fundamental to gather interests of all stakeholders, sectors and citizens. Anticipation is key to achieve social acceptance of a project, especially linked with renewable energy.

The speakers underlined the impressive results of the RegEnergy project and thanked all speakers of the day as well as the team of Brest métropole for organising the final conference. Hearing from experts about the success of real-life solutions ignites new energy and inspiration for further challenges of the energy transition to be encountered.





@ Pierre-François Watras

Additional Information

On the renewable energy partnerships can be found here:



Lead Partner of the INTERREG V B project

RegEnergy - Renewable Energy Regions

Climate Alliance

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