



SUSTAINABLE REGIONS IN ACTION

Where regional and local actors
exchange and learn from each other

2020



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WORD OF THE PRESIDENT

JULIJE DOMAC

As a new year dawns, I am pleased to introduce once again FEDARENE's annual publication Sustainable Regions in Action. It allows me to take a step back and appreciate the progress made this past year by regions and energy agencies on their energy transition journey. In 2019, they have made people's homes healthier and their transport systems smarter. They have raised awareness about sustainable energy and have encouraged the creation of green jobs. They have triggered new sustainable investments; empowered renewable energy communities; developed innovative solutions for a sound management of resources and infrastructures. They have been trusted partners to both local authorities and EU institutions.



Inside our network, we have also had the pleasure to welcome several new members, including island members working inside our Island College to make these remote territories smarter and more sustainable. The recent European elections also brought new representatives in the European Parliament and in the new European Commission. We welcome them and look forward to cooperate in achieving our common climate and energy goals.

This brochure provides a panorama of projects implemented by FEDARENE's members in their cities, regions and islands - always with a European added value in mind. After going through them myself, I can say that I am proud to lead a network of such talented and driven people.

Now turning towards the present - and the future, I am happy to announce that 2020 marks the 30 years of existence of FEDARENE. We will celebrate this key milestone all year long, reminiscing our past achievements, working towards future victories.

I wish you a pleasant read.

A handwritten signature in blue ink, consisting of stylized, flowing letters that appear to be 'JD'.

Julije Domac
FEDARENE President & Managing Director
of North-West Croatia Regional Energy Agency



ABOUT FEDARENE





FEDARENE was created on 8th June 1990 by 6 regional authorities – Rhône-Alpes, Provence-Alpes-Côte-d'Azur, Wallonia, País Vasco, Aquitaine and Nord-Pas-de-Calais. These authorities wanted to make the voice of the regions heard in the debate on energy and environment policies at the European level. The Brussels office opened its doors in November 1991. The six pioneers quickly attracted followers and the network already reached 40 members in 1995. Today, FEDARENE is the premier European network of regional and local organisations which facilitate or implement sustainable energy policies and measures at the regional and local levels. With more than 80 members, the association represents 23 European countries, drawing on the advice of 800 experts throughout the Union.

WORKING TOGETHER FOR SUSTAINABLE ENERGY POLICIES

FEDARENE is facilitating the development of interregional partnerships and is helping regions develop their capacity to take action, and assisting them in the creation of energy and/or environmental organisations. The organisation also participates in EU projects developed by its members by raising the visibility of good practices.

BRIDGING THE GAP BETWEEN REGIONS AND THE EUROPEAN UNION

FEDARENE is acting as a centre for the dissemination of information. Its bilateral communication activities are aimed at FEDARENE members for their own activities and their work within European Programmes, as well as at European Institutions. The organisation is a highly visible showcase of creativity and innovation of its members' special information tools and strives to keep them constantly informed about EU updates. FEDARENE is also actively promoting the activity of its network on social media and beyond.

LOBBYING THE EU INSTITUTIONS

FEDARENE has been able to become a critical force with specific lobbying influence by promoting the regional dimension in debates concerning energy and the environment. Particular emphasis is placed on local demand and supply in order to contribute to sustainable development.

OUR MISSIONS



FEDARENE acts as a liaison between local / regional authorities and European institutions. We make the voice of regions and local governments heard at the European level and inform our constituency of relevant European initiatives and policies.



FEDARENE promotes the exchange of experience and the development of transnational projects. Through its events and networking activities, FEDARENE brings together organisations from across Europe to share know-how, develop European projects and replicate successful initiatives.

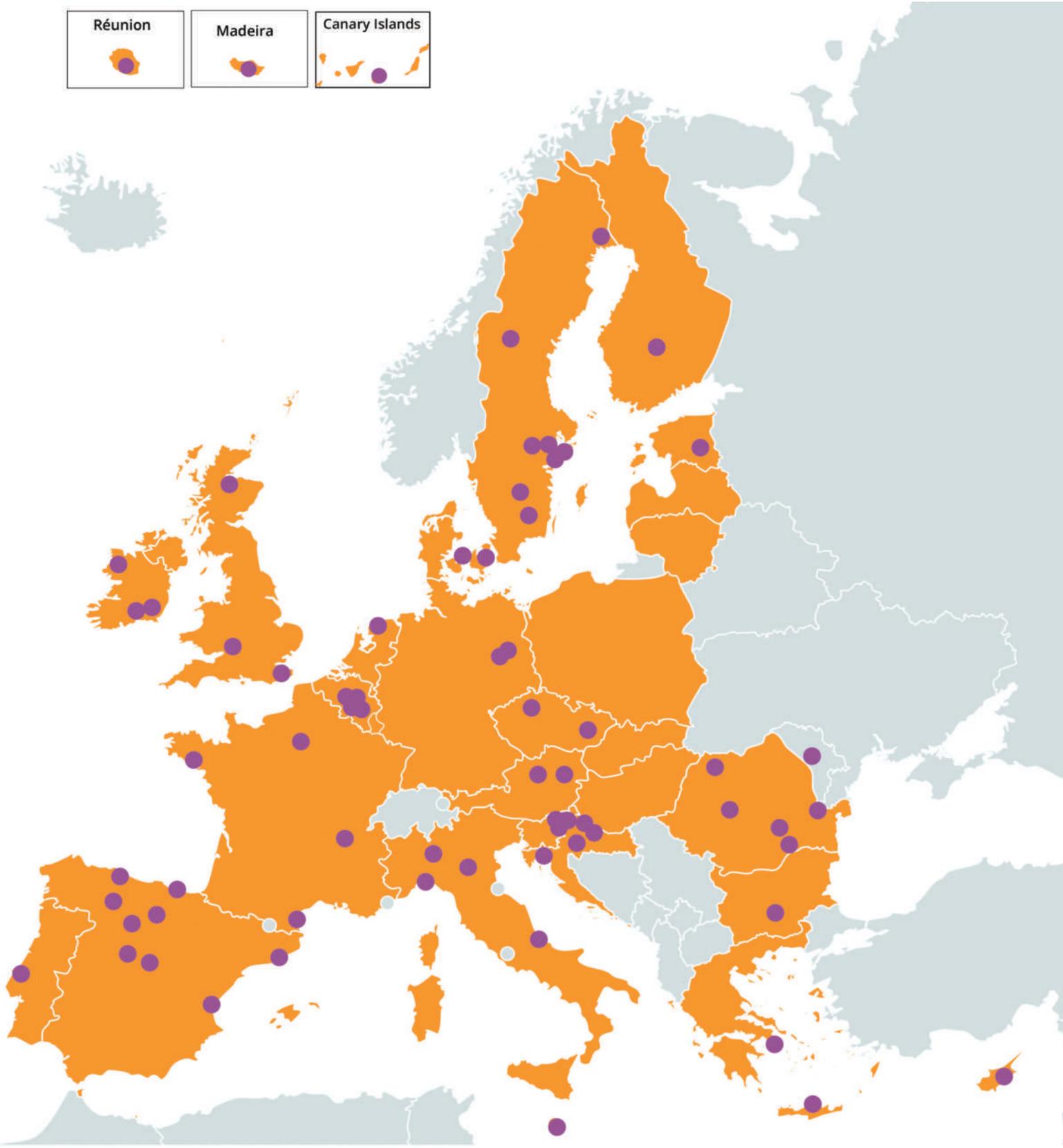


FEDARENE provides a forum for discussion for stakeholders of the energy sector. FEDARENE serves as a platform not only to its members but to all stakeholders striving for the energy transition: public authorities, non-governmental organisations, citizens, small and medium-sized enterprises and financial institutions amongst others.



OUR MEMBERS

FEDARENE has more than 80 members across 23 countries, namely: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Malta, Portugal, Republic of Moldova, Romania, Slovenia, Spain, Sweden, The Netherlands, United Kingdom. You can discover the complete list of our members and their profile on our website on fedarene.org/members.



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A QUESTION?

We're here to help you!

THEIR WORDS ON FEDARENE



“

FEDARENE places Energy Agencies and Regions at the heart of the Energy Transition.

Seamus Hoyne, FEDARENE Secretary General

European Regions face new challenges to develop and implement their integrated Energy and Climate Plans. Thanks to the FEDARENE network, energy agencies can share experiences, solve problems, learn new approaches and work together towards a sustainable energy future. Their key role in achieving national and European targets in the energy transition is acknowledged and highlighted.

“

Ricardo Gonzalez Mantero, FEDARENE Vice-President for Renewable Energy Sources

“

FEDARENE brings to light local and regional initiatives that have a positive effect on our climate and environment, allowing other European cities and regions to replicate their findings. In Central Finland, we are working hard to implement circular economy principles into our existing economical activity, and the visibility brought by FEDARENE really help us showcase this to the rest of Europe.” Or something like that.

Rolf Nyholm, FEDARENE Vice-President for Circular Economy



“

The strength of FEDARENE lies in its power to inform high-level EU representatives about its members' expertise and know-how, and at the same time, to instil the regional level in European policies.

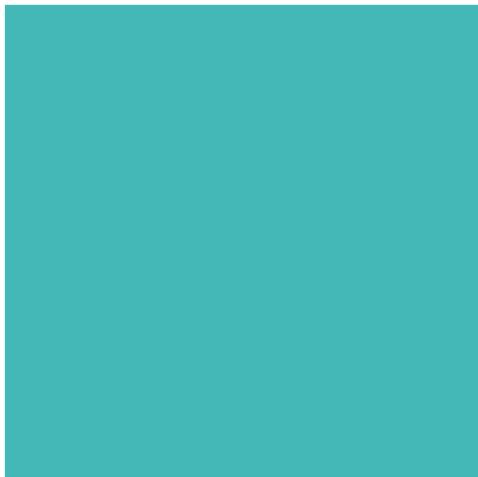
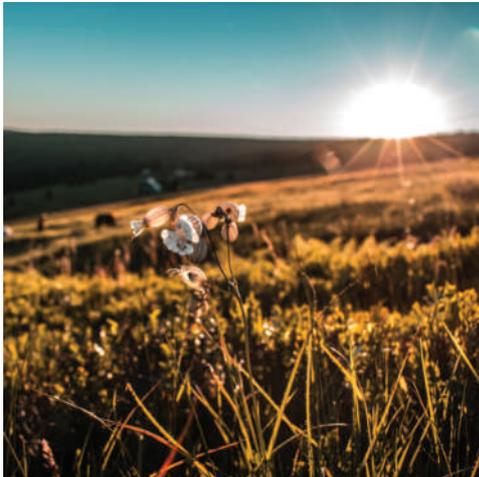
Marie-Laure Falque Masset, AREC, Energy and climate division of L'Institut Paris Region



ADVOCACY ACTIVITIES



FEDARENE'S MANIFESTO



EUROPE AND ITS REGIONS A Partnership for Energy Transition

In May 2019, in celebration of Europe Day and ahead of the European Elections, FEDARENE's members declared once again their clear and immovable commitment to support the European Union in its climate action and energy transition. Indeed, the regions, energy agencies and islands of FEDARENE have witnessed how energy transition unites territories and citizens and believe it is the driver Europe needs to overcome disunity and achieve sustainable solidarity. In the following pages, you will discover our manifesto, where we share our vision of a Union of Sustainable Energy and expose how the European Union in partnership with the local and regional levels can make the energy transition a true opportunity and respond to the people's needs.

OUR VISION

Since 1990, FEDARENE has been bringing Europe and its regions closer together in their common transition towards clean and efficient energy. As a federation of regions, energy agencies and islands, we have witnessed how energy transition unites territories and citizens and believe it is the driver Europe needs to overcome disunity and achieve sustainable solidarity.

Since the European Coal and Steel Community, energy has been the cornerstone of European integration, changing the destinies of citizens across the continent. Now, in partnership with local and regional authorities, Europe must take the next step towards a Union of Sustainable Energy based on 3 main drivers:



The **CREATIVITY** of local and regional initiatives.



The **COURAGE** to become frontrunner of positive change.



The **RESPONSIBILITY** to stand up for real climate action.



A new European Parliament, a new European Commission

A NEW BEGINNING



The new representatives of the European Parliament and European Commission have the chance to make 2020-2030 be remembered in history as a decade of European rediscovery. Their ambition can set the European Union on the right track for the economic and social transformations needed to achieve carbon neutrality by 2050.

2020 has been considered the finishing line for this decade of EU policies, holding the promise of a smarter, more sustainable and inclusive Europe. Efforts have been concentrated on economic recovery, social inclusion and climate action, yet the trust of citizens in the European Union has not increased. Economic inequalities between regions and citizens deepen, climate impacts are being quantified in human lives, unemployment and health remain key concerns for Europeans, all the while populist and nationalist rhetoric fill our daily lives.

The next years will be decisive in demonstrating Europe's capacity to re-discover its purpose and revive the European project by facing head-on common challenges and setting ambitious goals for 2030.

A EUROPEAN RESPONSE TO PEOPLE'S NEEDS

SUSTAINABLE ENERGY addresses the most basic yet central aspects of our daily lives: the quality of the air we breathe, the comfort of our homes and work environments, access to affordable heating and electricity, better street lighting, clean and affordable transport, new job openings, new community led initiatives, intelligent urban planning and environmentally friendly agriculture. It must be seen as an investment opportunity as well as a social policy that responds to fundamental needs across multiple sectors and levels of society.



Responding to common needs was the method of European Union's Founding Fathers to make concrete achievements and reach a de facto solidarity. Regions and cities see today how the energy transition brings vitality to their communities and their local/regional energy agencies are critical enablers to stimulate local economic development, foster employment, create demand and supply for energy efficiency services and products, implement and upscale renewable energy projects, develop adaptation strategies, alleviate energy poverty, improve air quality and truly inform and empower citizens and community initiatives. The focus must be across all sectors, as a multi-sectoral approach is vital if climate action targets are to be achieved.

The people of Europe ask for ambitious climate action now. Thousands of young citizens march every week in cities across Europe to call for immediate and bold climate policies. Public surveys show that more than four in five Europeans agree that fighting climate change and using energy more efficiently can create economic growth and jobs in the EU (85%), and that promoting EU expertise in clean technologies to countries outside the EU can benefit the EU economically (83%) (Special Eurobarometer 479, Report "Future of Europe - Climate Change").

Addressing climate action is no longer just a scientific recommendation, it is a democratic duty as much as it is an opportunity.

HOW TO MAKE ENERGY TRANSITION AN OPPORTUNITY - OUR PROPOSALS

1 MULTILEVEL climate and energy dialogue must become a reality by including regions, municipalities and their energy agencies in decision-making at the highest-level. Municipalities and regions are driving the energy transition. The effectiveness of climate and energy policies depends on the involvement of their implementers in their design. The partnership principle should therefore become a binding rule for all European decision-making across sectors.

2 ENERGY AGENCIES at local and regional level are breaking the barriers of clean energy transformation, changing mentalities, finding new financing options, aggregating investments and forever changing the face of our cities and regions. The European Parliament and Commission should make the most of the expertise and knowledge of energy agencies and rely on their support to advise Europe's policies on local sustainable development.

3 ISLANDS experience the effects of climate change at disproportionate levels. Their energy supply depends heavily on fossil fuels, which represents a burden for the environment and economy. This gives islands a real incentive to kick-start their clean energy transition now and act as an example for mainland Europe. The European Union should increase its support to islands to unlock their creativity and resourcefulness and leverage it so as to accelerate progress towards climate and energy objectives.

4 MARKET UPTAKE of clean energy solutions must be the main focus of the next decade of European policies. Europeans may already reap the benefits of clean energy research if proper support is provided to local and regional market facilitators. Support programmes must enable the up-scaling, aggregation and replication of existing successful energy efficiency and renewable projects across Europe. The digitalisation of the energy system must increasingly rely on a thorough assessment of local needs.

5 SOCIAL TRANSITION will fuel Europe's energy transformation. European climate and energy policies must leave nobody behind and should concentrate on alleviating energy poverty, sustainable reskilling, support to citizen-led initiatives and strategic support to coal regions in transition. Citizens are not only beneficiaries of our clean energy movement, they must become its main drivers and delivery agents by means of distributed energy self-generation and energy efficiency.

6 EDUCATION on climate mitigation and adaption must target all ages and all segments of society with a tailored approach. Transforming our values and norms will drive the change of practices in all areas of activity and help counter rebound effects.



YOUR PARTNERS IN THIS ENDEAVOUR

Making our societies more sustainable is a road we must walk together. We, the regions, islands and energy agencies of FEDARENE commit to:

- 1** Offer to the European Union Institutions our local knowledge and expertise to make climate action a reality in all of Europe's territories.
- 2** Make people aware and confident of Europe's policies and their unique benefits.
- 3** Uphold sustainable development as a European value as recognised by article 3 of the Treaty on European Union.
- 4** Demonstrate the concrete added value of Europe through its successfully co-funded projects and initiatives at local and regional level.
- 5** Continue to act as market facilitators and stimulators of investments in sustainable energy actions, with the ambition of increasing the scale and quantity of such investments.
- 6** Stimulate local citizen-led initiatives taking ownership of their energy transition.
- 7** Continue to strengthen our trans-European partnerships between regions and energy agencies, thus contributing to Europe's continuous integration.
- 8** Increasingly link our cities and regions with the European project, thus strengthening EU's legitimacy at local and regional levels.



POSITION PAPER

Steps to an Effective Support for Energy Transition from the new LIFE Programme



As the European Commission is drafting the first multiannual work programme for the next LIFE programme 2021-2027, the members of FEDARENE re-affirmed their vital recommendations to ensure the continuity of local and regional sustainable energy projects.

Coordination and support projects on clean energy market uptake and capacity building projects have brought an amazing added value in cities and communities and have enabled local/regional energy agencies to stimulate local economic development, create jobs, stimulate demand and supply for energy efficiency services and products, implement and upscale renewable energy projects, develop the first adaptation strategies, alleviate energy poverty, improve air quality and truly inform and empower citizens and local initiatives. These projects have been incredible drivers of European integration, creating transnational long-lasting partnerships, jointly embarking cities and regions towards common sustainable development goals.

Read the following pages to discover FEDARENE's recommendations for Coordination and Support Actions for Clean Energy Transition within LIFE 2021-2027.

Dear Representatives of the European Commission,

FEDARENE (European Federation of Agencies and Regions for Energy and the Environment) welcomes the provisional agreement¹ reached by the European Parliament and Council on the LIFE programme for the Environment and Climate Action 2021-2027.

As the first work-programme of the LIFE programme is currently under discussion, the members of FEDARENE wish to contribute to this process by bringing forward their experience with previous EU support programmes, more specifically in regards to coordination and support actions for clean energy transition.

As recognised by recital (7a) of the provisional agreement, coordination and support (CSA) projects on clean energy market uptake and capacity building projects have brought an amazing added value in regions, cities and communities. They have enabled local/regional energy agencies and public authorities to stimulate local economic development, create jobs, stimulate demand and supply for energy efficiency services and products, implement and upscale renewable energy projects, develop the first adaptation strategies, alleviate energy poverty, improve air quality and truly inform and empower citizens and local initiatives. These projects have been incredible drivers of European integration, creating transnational long-lasting partnerships, jointly embarking cities and regions towards common sustainable development goals.

In order to sustain this momentum through the next LIFE programme, the members of FEDARENE leveraged their experience and made the following recommendations along with structured justifications.

Above all, the clean energy transition sub-programme should have a co-financing rate above 80% and its implementation be directly managed by the Executive Agency in charge.

* * *

1. Minimum 80% co-financing rate for Coordination and Support Actions to support the transition to renewable energy and increased energy efficiency (art.10.2 e))

It is critical to ensure a **co-financing rate above 80%** for "*other actions needed for the purpose of achieving the general objective set out in Article 3(1), including coordination and support actions aimed at capacity-building, dissemination of information and knowledge, and awareness raising to support the transition to renewable energy and increased energy efficiency.*" (art.10.2. (e) of the proposal for a regulation). Such level of support is indispensable to respond effectively to the needs of market uptake actions and entities, as required by recital (28a) of the provisional agreement².

¹ Confirmation of common understanding on the Proposal for a Regulation of the European Parliament and of the Council establishing a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EU) No 1293/2013, 20 March 2019

² "*The maximum co-financing rates should be set at levels which are necessary to maintain the effective level of support provided by the Programme. In order to take into account, the necessary adaptability that is needed to respond to the existing range of actions and entities, specific co-financing rates will facilitate certainty, while maintaining a degree flexibility that be afforded as per specific needs or requirements.*"

What Coordination and Support Actions for sustainable energy consist of?

- ◆ **Market facilitation** projects that focus on stimulating the energy efficiency and renewable energy markets through a combination of strategic interventions improving commercial relationships between market actors, training and communication on the value propositions of energy transition measures.
- ◆ **Policy dialogue** projects focusing on accompanying policy makers (local, regional/national and EU) through information, evidence and advice for optimal and accelerated sustainable energy and climate strategies.
- ◆ **Technical assistance for project development** services enabling public and private project promoters to build the technical, economic and legal expertise and documentation needed for project development, and leading to the launch of concrete investments before the end of the action.
- ◆ **Capacity building** projects that raise the level of practical skills and knowledge of staff in public authorities and their affiliate agencies in charge of sustainable energy. Activities may include peer to peer learning programmes, master classes, expert missions, expert workshops.
- ◆ **Replication** projects that enable organisations to implement in their own cities/regions approaches and methods that have been successful in other places in Europe.
- ◆ **Standardisation** projects that target development and documentation processes, understanding of risks and value, contracts, performance data and reporting.
- ◆ **Information, awareness, dissemination and networking** projects that connect all the stakeholders and decision-makers whose involvement is required in the decarbonization of EU's economy.

Challenging match funding for Coordination and Support Actions in clean energy

While match funding from public sources has developed for LIFE projects on environment and climate topics, this has not been the case for sustainable energy. In the cases where such funds are available, they are only accessible through competitive bidding and cover a small portion of the remaining gap, thus obligating beneficiaries to search for yet another source of funding with yet another type of application procedure. This long and cumbersome process creates a prohibitive load of administration, heightens the risks for projects and adds to the barriers of local and regional energy transition.

EU co-funding of projects in this field has been vital for local/regional authorities and their affiliate energy agencies who are mostly small-medium sized non-profits, with varying and often precarious levels of financial support from public authorities. **Their capacity to self-finance their participation in EU projects is extremely limited as is for many small organisations working in this area.** Absence of match funding has often obligated smaller organisations to match funding with their own resources, thus destabilising even further their financial situation.

Lower co-financing rates will therefore not lead to co-financing more sustainable energy projects but will result in much fewer applications and less energy transition action in Europe. **Only associations capable of co-funding the projects will engage and therefore it is foreseeable that only large organisations (often the same ones) will capture most of the awarded CSA projects, preventing smaller organisations and newcomers to enrich the programme's impact and approaches.**

Climate urgency entails increased financial support for immediate decarbonisation

2020-2030 will be a decade of crucial importance if the EU is to reach net-zero GHG emissions by 2050. Achieving it will require considerable additional investments in the EU's energy system and related infrastructure compared to today's baseline, in the range of EUR 175 to 290 billion a year³. CSA projects have proven to be instrumental for stimulating such investments. Reducing financial support through lower co-financing rates for projects promoting renewable energy and energy efficiency is not the right signal to send to regions, cities and their inhabitants. Ambitious commitments of local and regional authorities such as the ones mobilised in the European Covenant of Mayors for Climate and Energy⁴ need to be backed by appropriate financial support.

³European Parliament resolution of 14 March 2019 on climate change – a European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy in accordance with the Paris Agreement

⁴<https://www.covenantofmayors.eu/en/>

2. Procedural alignment between LIFE and Horizon Europe and direct management by the Executive Agency

The move of the above-mentioned clean energy activities to LIFE is yet another restructuring of the original Intelligent Energy Europe programme, implying this time around a sizeable procedural change for applicants. Harmonising the administrative procedures of LIFE (at application and implementation stages) and Horizon Europe would lead to reduced administration costs for beneficiaries as well as economies of scale for the Executive Agency managing the programmes. This would also be consistent with the LIFE programme's role as a catalyst for the deployment of research and innovation results from Horizon Europe.

Such an alignment would imply the following considerations:

At application stage

- ◇ **"Two-step" applications** can be useful for larger projects and may help in reducing redundant expenditure for project development. However, if a two-step procedure is to be retained for certain types of projects, the first-stage evaluation should be performed rigorously, enabling applications that reach the second-stage to have a 50% chance of succeeding.
- ◇ The **application procedure should be completely online** and on the same electronic platform as the one used for reporting during the project implementation.

At evaluation stage

- ◇ The **evaluation criteria** used under Horizon 2020 (excellence, impact, quality and efficiency of the implementation) are clear and have been successfully used in selecting impactful projects. The "impact" criterion of the evaluation is fundamental for CSA projects and should be the most determinant criterion.
- ◇ The **evaluation process should be as short as possible**, aiming for a maximum of 8 months between application and grant agreement signature (5 months for evaluation feedback).

During implementation

- ◇ We strongly recommend the **direct management** of the LIFE programme (or at least of the clean energy sub-programme) by the responsible Executive Agency, avoiding any subcontracting to external organisations. Horizon 2020 has demonstrated the added value of direct management by EASME & INEA.

A key aspect of the CSA in H2020 was to inform and support policy making in the field of the energy

transition. Numerous projects supported policy interactions with stakeholders and provided feedback from the ground on current and future programmes and policies. It created a strong link between EU policy and local implementation, thereby creating a strong driver for the energy transition. Adding an administrative layer without direct access to the experts in the different Commission services, entails a high risk that this role cannot be fulfilled in the future. Given the urgency for well-informed policy making in view of the impending climate catastrophe, the input from these projects should not be lost.

Direct management accelerates decision making related to the project implementation and implies for the executive agencies to benefit from appropriate resources in order to effectively manage the number of projects. Lowering the administrative burden and harmonising H2020-LIFE procedures would enable that. The experience of EASME & INEA in streamlining administrative procedures should be leveraged.

- ◇ Project related **financial statements** should not be confused with financial audits. While beneficiaries should be obligated to have a reliable internal accounting and reporting system related to the project implementation (timesheets, original invoices, proof of salary payments etc.), they should not be obligated to comprehensively demonstrate this reliability at every reporting phase during the project implementation.

There is wide evidence available from the H2020 and IEE programmes that the key beneficiaries are well-established organisations that are not in a risk category requiring external audits. Providing a financial audit is often a very costly procedure - sometimes as high as several percent of the total project costs which are then «lost» to the programme objective: combating climate change and contributing to the clean energy transition. They also create an unnecessary administrative burden.

The reporting methodology of the previous “Intelligent Energy Europe” programme was pragmatic and appreciated by beneficiaries (every 9 months submission of a technical progress report, a financial statement at the interim and final stages).

◊ Both financial and technical reporting should be carried out solely through **one and unique online platform** for environmental reasons as well as to lower administrative costs. This platform should be the same as the one used for the application process. These processes could be undertaken through an existing platform such as the “Single Electronic Data Interchange Area”, where streamlined and effective procedures are in place and well-tested.

◊ **Removal of the 2% rule is crucial.** This rule is a deterrent from joining LIFE projects. The additional/non-additional employees’ distinction is unreasonable for public equivalent bodies (such as many energy agencies and other such implementing bodies) as their permanent personnel costs are not automatically covered by public funding, and, in the same time, they cannot hire new personnel due to national law restrictions. Public agencies need to have their permanent personnel costs accounted for in projects otherwise it will be virtually impossible for them to participate in proposals. Furthermore, this strict classification of employees between additional and non-additional sets them in an inequality position against each other in organisations dependent on external funding, given the equal need for external funding irrespective of the length of their employment history. The aim should be to treat employees equally regardless of their employment history.

◊ The **7% indirect costs rate in LIFE is largely insufficient** to cover the real office and administration costs created by LIFE projects. Private entities as well as public equivalent bodies cannot cope with it. A realistic rate should start at 25%, and in case of a low co-financing rate (below 80%), then the indirect cost flat-rate should rise as far as 60% (as it was under the IEE programme). A higher overhead percentage and funding rate would increase the interest in LIFE funding in organizations dependent on external funding.

◊ **Pre-financing is essential** for smaller and private organisations. Payments schedule should therefore

keep a format similar to Horizon2020:

- » one pre-financing payment (float that is fixed in each GA and automatically paid at the beginning of the action. For pre-financing this should be 100 % of the average EU funding per reporting period (i.e. maximum grant amount set out / number of periods).
- » one or more interim payments, on the basis of the request(s) for interim payment.
- » one payment of the balance, on the basis of the request for payment of the balance.

3. Key priority topics in the first LIFE work programme

In order to effectively “contribute to the shift towards a sustainable, circular, energy-efficient, renewable energy-based, and climate-neutral and resilient economy”⁵, from a local and regional perspective the following non-exhaustive list of priorities should be considered in the first work programme:

1. Increased technical assistance for developing local & regional integrated building renovation services (including for multi-family residential, commercial buildings, private & public owned).
2. Innovative financing for energy efficiency investments.
3. Development and roll-out of business models integrating energy efficiency, renewable energy sources, energy management, storage and/or other sustainable energy areas.
4. Increased project development assistance for aggregation projects.
5. Mitigating energy poverty (households and mobility).
6. Energy Communities – developing business models, demonstrating & promoting the value propositions of such new configurations.
7. Citizen mobilisation and involvement in sustainable

5 Programme objectives, Article 3, Confirmation of common understanding on the Proposal for a Regulation of the European Parliament and of the Council establishing a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EU) No 1293/2013, 20 March 2019

energy projects – awareness raising and training, behavioural studies, use cases and technical assistance to develop energy communities.

8. Accelerating the decarbonisation of Europe's industries – projects demonstrating that competitiveness is achievable through energy transition measures.
9. Support for energy efficiency actions/measures in small and medium-sized enterprises.
10. Establishment and support of sustainable energy clusters of clean technology companies.
11. Local/regional integrated planning (energy & climate). As adaptation becomes an urgent need, strategies and methodologies need to be developed and included in existing planning exercises, with a mobilising effect for cities & regions.
12. Management of energy, environment and climate data.
13. Sustainable mobility projects increasing the use of E-mobility, bio-CNG & hydrogen.
14. Decarbonising energy systems of geographical Islands.
15. Local and regional public authorities support through capacity building & peer to peer on project development and financing.

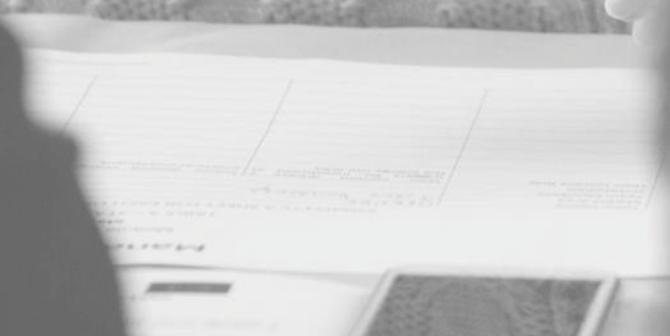
4. Inclusion of sustainable energy experts as members of the LIFE Committee

As the first multiannual work programme will be reviewed by the LIFE Committee, we invite the European Commission to encourage the inclusion of sustainable energy experts in the committee procedure. As "Clean Energy Transition" becomes a key focus of the LIFE programme through a specifically dedicated sub-programme, expertise in sustainable energy will be indispensable to ensure the committees' control is effective (as required by Regulation n° 182/2011, recital 5), especially regarding the adoption of LIFE programme's multiannual work programmes related to clean energy transition.

FEDARENE welcomes the opportunity to meet and discuss these issues with a view to be an active contributor to the design of a new LIFE Programme that maximises the ability of citizens and regions to realise the energy transition agenda.



PROJECTS & INITIATIVES



FEDARENE participates in European projects and initiatives alongside its members and other European organisations. These projects focus on capacity-building, market facilitation, policy implementation and replication of best practices amongst others. Its involvement in the Covenant of Mayors and ManagEnergy Initiatives have been particularly beneficial in terms of raising its profile and supporting networking activities.



COVENANT OF MAYORS FOR CLIMATE AND ENERGY

The Covenant of Mayors is the world's largest movement for local climate and energy actions, bringing together local and regional authorities voluntarily committing to implementing the EU's climate and energy objectives on their territory. Signatory local authorities share a vision for making cities decarbonised and resilient, where citizens have access to secure, sustainable and affordable energy. They commit to developing Sustainable Energy and Climate Action Plans (SECAPs) for 2030 and to implementing local climate change mitigation and adaptation activities. This unique bottom-up movement, which started in 2008 with the support of the European Commission, now counts over 7,700 signatories.

FEDARENE is part of the consortium running the Covenant of Mayors Office, together with 5 other European networks of local and regional authorities: Energy Cities, Climate Alliance, Eurocities, CEMR and ICLEI Europe. FEDARENE participates in defining the strategy behind the initiative and has been actively involved in mobilising regions and energy agencies around Europe, through promotion, a continuous helpdesk, events and seminars, conferences and exchange of best practices.

Provinces, regions and energy agencies are key to the success of the initiative, notably in terms of:

- The promotion they do of the Covenant in their territory;
- Increasing the organisation's capacities by providing decentralised support on the ground and ensuring tailored interaction with signatories;
- The support provided to signatories including technical assistance;

Mobilising other stakeholders – such as associations, private companies and universities.

The Global Covenant of Mayors is capitalising on the experience gained over the past eight years in Europe and beyond, and is building upon the key success factors of the initiative: its bottom-up governance, its multi-level cooperation model and its context-driven framework for action.

Visit the Website: www.eumayors.eu

ManagEnergy

Energy Agencies Leading the Energy Transition

ManagEnergy is the European Commission initiative for helping local and regional energy agencies to become leaders in the energy transition and to increase sustainable energy investments in regions and cities. It provides information, know-how, visibility and networking opportunities.

The initiative is based on four main activities: Master Classes, Expert Missions, Networking Events and ManagEnergy Talks. Master Classes consist of tailor-made 3-day programmes in Brussels, delivered by leading energy experts for an audience of senior and management level energy agency staff on key topics such

as market facilitation, project development, financing solutions...

ManagEnergy Expert Missions are customised 3-days missions of capacity building for energy agencies and their stakeholders (e.g. local authorities, financial institutions, investors etc.). The visiting experts meet with and coach the participants to support the realisation of significant sustainable energy investments.

Networking events are annual events organised in order to increase cooperation, knowledge and peer exchange between local and regional energy agencies across

Europe. The discussion focus on new political and legal initiatives, financial services, and technical innovations. Ultimately, these exchanges should raise their skills in project financing and development.

Finally, the ManagEnergy Talks follow the same format as TedxTalks, with short key note speeches by well-known experts in the field aimed at stimulating debate and engagement on critical and emerging topics.

The role of FEDARENE in this new phase of the ManagEnergy project is to support the organisation of the various foreseen activities. In addition, FEDARENE seeks

to boost the visibility of the initiative by communicating actively online and through its network.

After more than 2 years after the official launch of the initiative, ManagEnergy is entering its last phase. By the end of June 2020, 8 Master Classes will have taken place, 21 Expert Missions, 3 Networking Events and 3 ManagEnergy Talks, connecting hundreds of energy agencies staff and related stakeholders to advance the energy transition.

Visit the website: www.managenergy.eu

In addition to the Covenant of Mayors and ManagEnergy Initiative, FEDARENE is currently involved in 10 EU funded projects:

C-TRACK 50

Putting regions on track for carbon neutrality by 2050 – C-track 50 will empower local and regional authorities to develop, finance and implement ambitious sustainable energy and climate resilient plans and actions.

Website: www.c-track50.eu

ENERGY EFFICIENCY WATCH 4

The overarching objective of EEW4 is to support policy makers in European Union Member States in improving the degree of successful implementation of policy instruments for energy efficiency, and thus contribute to reaching the target of the Energy Efficiency Directive.

Website: www.energy-efficiency-watch.org

EU CITY FACILITY

The aim of the European City Facility is to get a large number of cities and communities to kick-start the process for mobilising investments in sustainable energy through realisation of investment concepts - similar to a "Micro-Elena/PDA".

OPENGELA

An innovative integrated home renovation service for private residential buildings to be validated in the Basque Country and with a high replicability potential in Europe. This will be achieved by setting up one-stop-shops to facilitate turn-key solutions to homeowners, covering the

whole customer journey.

Website: opengela.eus

PROSPECT

The PROSPECT learning programme enables peer-to-peer learning in regional and local authorities in order to finance and implement their sustainable energy and climate action plans. The programme builds upon successful financing schemes implemented in cities and regions in the European Union.

Website: www.h2020prospect.eu

QUALDEEPC

The project QualDeEPC attempts to achieve a high-quality Energy Performance Assessment and Certification in Europe accelerating deep energy renovation

Website: qualdeepc.eu

RELATED

REnewable Low TEmpérature District (RELaTED) provides a demonstrated concept of ultra-low temperature network solution for new district heating systems and the progressive conversion of currently running district heating systems in order to de-carbonize energy supplies in urban environments.

Website: www.relatedproject.eu



ROGER LÉRON AWARD

FEDARENE does not only act for the energy transition through its EU projects and initiatives. Each year, the FEDARENE office organises the Roger Léron Award to celebrate outstanding contributions to the development of sustainable energy and energy efficiency at the local, regional and European level. Funded in 2015, the Award pays tribute to the French politician Roger Léron, who was the president of FEDARENE from 1990 to 2007 and who greatly contributed to the sustainable energy field throughout his life.

2019 already marked the 5th anniversary of the Roger Léron Award. The winner, Søren Hermansen, was announced during the Ceremony on the 9th of October in Brussels. Søren Hermansen led the island of Samsø (Denmark) to a future free of fossil-fuel energy and into the transition to renewable energy, making it the world's first renewable energy island. Søren is also the founder and director of the Samsø Energy Academy which is part of the FEDARENE network. The 2019 Ceremony also highlighted the work carried out by finalists Maria del Rosario Heras Celemín and Josep Puig i Boix, as well as the achievements of the other outstanding nominees. Applications for the 2019 edition will start soon, with the expectation that it will have the same success as past editions.



You can find further information about the Award including jury members and eligibility criteria on our Roger Léron web page (www.fedarene.org/roger-leron-award).

30 YEARS OF LEADING THE ENERGY TRANSITION

FEDARENE will celebrate its 30 th Anniversary in 2020. Since the set up in 1990 when 6 European regions joined forces to promote sustainability and the energy transition, FEDARENE has grown into a leading network. Its member regions and energy agencies have contributed significantly to FEDARENE's development and achievements. This is why this year, we will host a celebration in September 2020 around the theme "30 years of Leading the Energy Transition: celebrating past achievements, working towards future victories."

On the agenda: interesting workshops and conferences, the ceremony of the 6th Roger Léron Award, and much more. Stay tuned!



MEMBERS' PROJECTS



OUR MEMBERS

FEDARENE's best successes are those accomplished by its members on the ground everyday. In the following pages, you will discover some of the latest and most impressive projects our members have carried out within their cities and regions across Europe. These examples highlight the diversity of their actions, goals, needs and challenges.

LOCAL & REGIONAL ENERGY AGENCIES & COUNCILS

The energy departments of regional and local councils, and energy agencies drive and implement the energy, climate and environmental policies of their regions. As autonomous entities, they elaborate and manage their own plans, acquire experience and knowledge, whilst engaging with local stakeholders. In particular, these entities intervene in the demand and supply side of energy management, development of renewable energy sources, waste management, mobility, air quality and urban development.

FORMS OF ACTION

- Advising local and regional decision-makers in defining regional energy and/or environmental and climate policies.
- Supporting local and regional councils in implementing regional energy and/or environmental and climate policies.
- Taking part in innovative EU projects (demonstration).
- Supporting the setting up of projects (community based).
- Providing technical assistance to municipalities.
- Promoting the development of local SMEs (eco-clusters).
- Anticipating the implementation of European legislation.
- Facilitating financing of projects (promoting subsidies from Local and Regional Councils) and initiating local investments.
- Leading awareness-raising campaigns.
- Participating in European and national networks.

v

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SUSTAINABLE FINANCE & INNOVATION SERVICES

REGEA INVESTMENT FACTORY – DIGITAL INVESTMENT PLATFORM [HR]

In 2019, the North-West Croatia Regional Energy Agency (REGEA) launched an initiative to create an innovative digital investment platform in collaboration with SAP, a multinational corporation that makes enterprise software to manage business operations and customer relations used by over 150-million cloud users. The main goal of the platform is to connect investors and owners of buildings with suitable rooftops, who are also electricity buyers. The platform defines contractual relationships in a secure and transparent manner and enables the aggregation of many single projects into investment packages. The concept works regardless of borders – investment packages can be matched with projects from different countries.



Ultimately, the platform would provide investment opportunities for large institutional investors, such as pension and investment funds and also directly for

citizens. The goal of the project is to apply all the benefits of digital technology and the 21st century way of thinking into the sustainable energy world. The investment value of the first projects to be listed will be higher than 1.5 million Euros, and it is expected that by the end of 2019, the investment portfolio of the platform would exceed 20 million Euros. The platform currently only focuses on solar energy (photovoltaic power plants). However, at a later stage, it will be also used for other projects which have the potential to generate income or financial savings.

One of the projects financed through this investment platform has been the installation of a photovoltaic system on the General hospital Zabok rooftop – an innovative example of cooperation between public and private body where the private entity is responsible for assembly of PV modules and for delivering electrical energy to the hospital for nine years. The hospital, during contractual commitment with a private partner, already has a 10% lower cost for the amount of kWh the PV system produces but, after nine years of contract, the PV system will be under their ownership and they will have almost 500.000 kWh of free electrical energy. The installed capacity of PV's is 470 kW and the investment is 250.000 Euros.

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64 YOUNG PROFESSIONALS FROM OVER 30 COUNTRIES DRIVE ENERGY INNOVATION IN UPPER AUSTRIA - OÖ ENERGIESPARVERBAND [AT]



© OÖ Energiesparverband

The International Clean Energy Challenge, organised from 22-26 July 2019 in Upper Austria by the OÖ Energiesparverband (ESV), brought together 64 highly-qualified young professionals from more than 30 countries and 11 partner companies for a cutting-edge event of collaborative innovation (picture on page 31).

The ESV, the regional energy agency of Upper Austria, supports energy technology companies in increasing competitiveness and market leadership in the context of the Cleantech-Cluster (CTC), a network of 250 businesses in Upper Austria. Acting on this ambition, the ESV came up with a novel event that encouraged creative thinking and problem-solving.

In diversified and interdisciplinary teams, 64 bright young minds (under 33 years old) from all over the world tackled real-life challenges presented by the partner companies to improve their products or services or create new ones. Topics addressed energy efficiency and renewable energy in industry, buildings, e-mobility and more. Each of the teams was assigned to a specific company challenge, typically consisting of a service, concept or market that the partner organisation is keen on developing or expanding. Decentralised energy generation, decarbonised energy systems and digital solutions were key themes.

Over the course of the event, they were guided through a dynamic and structured innovation process. Company representatives were present and offered support and professional coaching. As the grand finale, the groups presented their solutions to a jury of management-level representatives and symbolic awards were granted.

This original new concept attracted strong interest. 200 high-potential candidates from 43 countries applied. The selected participants consisted mostly of young professionals working in businesses, industry, energy agencies, associations, public bodies and research institutions and some students in advanced education. They came from a diversity of educational backgrounds including engineering, economy, architecture, business administration, chemistry, mathematics, law, political science and more. Representatives from 4 FEDARENE members (Paris Region Energy Agency, Alba Local Energy Agency, 3 Counties Energy Agency and Severn Wye Energy Agency) and a FEDARENE employee were among the participants.

The event was a great success and highlighted how driving the energy transition and doing business can go hand-in-hand. By helping the companies develop comprehensive solutions and new business models, the ESV contributed to making the clean energy transition reality within their organisations, Upper Austria and beyond.

"It was a pretty cool event – from start to finish! Everyone involved benefited from this amazing experience, including myself." – Christiane Egger, Deputy Director of the ESV and initiator of the event.

More information about the event can be found online at www.wsed.at/de/programm/international-clean-energy-challenge.

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LIFE BE REEL PROJECT ON RENOVATION STRATEGIES FOR RESIDENTIAL BUILDINGS - WALLONIA REGION [BE]

Wallonia participates in the Be REEL! Project, which is a LIFE integrated project in which different partners work to implement the Belgian regions of Flemish and Walloon long term renovation strategies for buildings, essentially the residential buildings.



One of the actions of this project consists of launching a pilot call for proposals within the Walloon municipalities possessing a SECAP (Sustainable Energy and Climate Action Plan) in the framework of the Covenant of Mayors. The goal is to support citizens to renovate their house by using and testing the tools developed within the framework of the Walloon Region renovation strategy to improve the renovation rate: the “Quickscan”, the “roadmap” and the Building Passport – Energy component. This pilot call aims to involve the local level (municipalities) in the promotion and monitoring of the tools developed to address the objectives of the long-term renovation strategy.

The pilot call has been launched in June and 10 municipalities will be chosen in December 2019. The project will be set up in three phases.

First Step

The municipalities will first accompany the citizens/ manager of public housing in the use of the Quickscan tool. This tool will make possible an initial, quick assessment of the housing and of the potential energy savings, without the need of a professional. – The Quickscan tool will be tested by the municipalities over a sample of at least 1,000 households for which short-term renovation works are planned.

Second Step

The municipalities will select approval auditors to realize “roadmaps” in 300 buildings. The “roadmap” tool enables to visualize both the potential of a housing unit relative to the overall objective described in the Walloon strategy (label A) and the improvement trajectory of the energy efficiency of this unit. It will also provide a first estimate of investments and co-benefits in terms of improving comfort (thermal, visual, acoustic) and health.

Third Step

The 300 projects being the subject of a “roadmap” will be invited to submit an application for support of works based on the “roadmap” taking up the details of the proposed works and based on the applications received and the selection criteria, 100 units at most are selected by the municipalities. Citizens will be accompanied by an auditor for the realization of the renovations and for the monitoring of the energy consumption before and after works.

All the data collected during the project (Quickscans, roadmaps, monitoring) will be filed on the Database relative to the Building Passport – Energy component. The municipalities will carry out a survey of the property owners in order to obtain their opinions on the relevance of these tools, their strengths, and their weaknesses. A closing seminar will be organized to highlight the results of the pilot action through concrete feedback resulting from the practical field. The municipalities that have participated in the action will be invited to submit their feedback.

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REDUCING THE CARBON FOOTPRINT / ENVIRONMENT



VALLADOLID: THE CITY COUNCIL IS COMMITTED TO ENERGY EFFICIENCY IN SCHOOLS - AEMVA [ES]

Valladolid City Council has seventy school buildings with their corresponding boiler rooms. 21 of these were over 25 years old, which meant some losses in comfort, in energy consumption and therefore in CO2 emissions.

In 2011, the City Council of Valladolid signed the Covenant of Mayors and, through the corresponding Sustainable Energy Savings Plan, committed to the saving of CO2 emissions. One of the actions of the SEAP was saving emissions by changing and renovating the boilers, if possible, to biomass.

After conducting a study of the rooms, one of the boilers of these centres which had diesel fuel was replaced by biomass. Unfortunately, this was not possible in the rest due to the availability of spaces. The fuel now used in these boilers is natural gas. This was chosen because, being unable to install biomass boilers, natural gas was the most efficient and least polluting of the rest of the fuels.

The new boilers installed are condensing boilers and, in the renovation of the room, high efficiency elements such as electronic pumps, flow regulators and remote management of the entire system have been installed.



This is a practically integral reform of the equipment installed in the boiler room, keeping the installed thermal power and substantially improving the efficiency of the equipment, such as boilers and circulation pumps. Additionally, the security of the system has been increased by including elements such as the new gas detection control unit, the renewal of the power supply and control system and the doors with fire protection in the pre-boiler room. Greater control over energy consumption has been provided to the equipment through energy meters, located in the primary circuits of the installation.

The telemonitoring system of the boilers allows the management of the room, starting and stopping of boilers and pumping system depending on the calendar and school schedule as well as the indoor and outdoor temperature. It also allows the administration of incidents with the maintenance company and with the Education Service in charge of school centres.

The savings achieved with these renovations are 1,034 MWh/year and 211.84t of CO2 emissions. This renovation was funded by the municipality's own funds, making it in three phases corresponding to three accounting budgets. The project was finished in summer of 2019.

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PROGRESS IN ROMANIA'S ENERGY TRANSITION THROUGH TECHNICAL SUPPORT TO MUNICIPALITIES - ALEA [RO]



Picture: PV system installed on an educational building in Alba Iulia
© ALEA

According to its engagement as official supporter of the Covenant of Mayors initiative, ALEA continued its energy related activities at county level by offering extended technical support to local authorities in their sustainable energy planning, coordinating the elaboration as well of their Sustainable Energy and Climate Action Plans as COM signatories. In this perspective, in Alba County the first two SECAPs were finalised in 2019, for Alba Iulia and Sebeş Municipalities.

Extending its effort regarding sustainable energy planning over a wider geographical area, ALEA has offered specialised technical support also at national level. Thus, over the last 2 years (2018,2019) ALEA offered technical consultancy to 10 Municipalities in Moldova

(North-East region of Romania) in the framework of the H2020 EMPOWERING project. It offered professional guidance both for the update of existing SEAPs to SECAPs and for the elaboration of new ones for the new CoM signatory municipalities. The main challenges ALEA faced during this task were the consistent approach regarding the actions of the main municipal domains (buildings, utilities, transportation) to reach the assumed 40% CO2 reduction target and the elaboration of the first adaptation plans to climate change of these cities.

Another direction regarding sustainable energy planning represented the support given by ALEA, as technical partner, in the elaboration of the Energy Strategy of Alba County 2018-2023, document promoted by Alba County Council. The strategy was finalised in 2018 and it was meant to be a reference document for local sustainable energy planning in Alba County.

The main directions of the strategy are the following: improvement of energy efficiency in every activity sector, extensive use of local RES and performant energy management. For the first time, a strategy is drafted to assess and mitigate a growing phenomenon in our country, namely the energy poverty of an important number of citizens.

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REGIONS AND MUNICIPALITIES FOR CLIMATE CHANGE MITIGATION - CENTRAL FINLAND [FI]

Not only big cities but also rural municipalities can contribute significantly to climate change mitigation. However, small municipalities do not necessarily have the resources required for this work. They share similar challenges that may differ from big metropolis challenges. Remote locations and low population density create challenges in public transport, centralized heating, etc. The solutions small municipalities have created, at their best, are transferable from one to another. In this project, Central Finland will bring together municipalities'

key stakeholders and will learn from the solutions they have created, finding new mitigation possibilities that can be implemented on the municipality level.

Municipalities make concrete actions for climate change mitigation, but they do not necessarily show the work in this field. Municipalities have done investments on led lightning, conducted energy renovations, and invested on green energy, among others. The actions they conduct for mitigation are important as such, but they can have

a role as an example for citizens and thus should have a wider audience. Municipalities need encouragement for the dissemination work.

Climate change mitigation work at the municipality level requires commitment. Commitment must be done on the city strategy level to guarantee a horizontal approach throughout the organization. There are good examples existing in Finland, and networks for municipalities to get help to their work. In this project, these networks and financial instruments available for municipalities will be promoted.

The promotion and activation campaign will bring together all regions' municipalities towards more ambitious climate change mitigation on the municipality level. This one-year project (9/19-8/20, budget 80 000€), funded by the Ministry of Environment (FI) and regional council of Central Finland, will guarantee a continuum of our regional climate change mitigation work.

This project is designed with a high level of flexibility. Central Finland will create a mutual learning process, that will not only increase knowledge but will also encourage municipalities towards more ambitious climate change mitigation goals. Also, it will create practical solutions

and a peer learning platform for our municipalities. This work includes seminars, webinars and excursions.

The first phase of the project is the organization of workshops with municipalities key-stakeholders in all our 23 municipalities. Based on these workshops, three to five topics that are of common municipality interest will be identified. These topics will then be studied in more details with experts and outcome will serve the municipalities in their more ambitious climate change mitigation work. Simultaneously, the goal is to create joint discussion forums for municipalities key-stakeholders (building maintenance, land use planning, environment sector) to share their experience and best practices.

The outcome of the project should be more ambitious climate change mitigation goals in Central Finland municipalities, and more structured and strategic approach on mitigation on municipality level. Also, the outcome should be a stronger cooperation especially between small municipalities in Central Finland on climate change mitigation.

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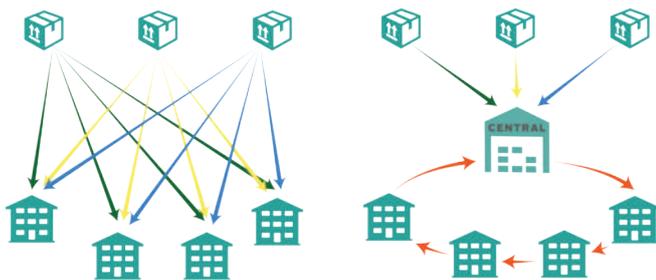
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MUNICIPAL CO-DISTRIBUTION OF GOODS SPREADS THROUGHOUT SWEDEN – ENERGIKONTOR SYDOST [SE]



Municipalities in Sweden make large purchases of food, office supplies and consumables for their own operations delivered by urban freight transport. Each supplier manages its own distribution individually, which means that a school or an elderly home can receive multiple deliveries during one day contributing to air pollution e.g. CO2 emissions and congestion in the city centres.

Municipal co-distribution of goods implies that all products from external suppliers are delivered to an urban consolidation centre and reloaded to one vehicle for distribution to municipal recipients. The business model has evolved from an isolated innovation developed in 1999 to an approach implemented in 42 municipalities by 2018, or every seventh Swedish municipality.



Before municipal co-distribution of goods

After municipal co-distribution of goods

© Energikontor Sydost

The Energy Agency for Southeast Sweden has been working to spread the concept of municipal co-distribution of goods since 2013, starting with pilot studies developing to implementation projects, which now has resulted in the hosting of a national support centre.

The process of implementation is somewhat time-consuming, with costs upfront and several steps including political decisions. But the long-term cost savings and the lowered emissions make the concept well worth to adapt.

Examples

- ◇ The results from more than 40 municipalities that have introduced co-distribution of goods show that vehicle kilometres of travel are reduced by between 60 and 80 per cent and emissions are reduced to a corresponding extent.
- ◇ Kungsbacka municipality went from 470 to 160 deliveries a week when co-distribution of goods was introduced in 2016.
- ◇ Another advantage is that it opens up for increased competition. Smaller local food producers are given the opportunity to submit tenders in municipal procurement when the requirement is waived for direct deliveries to all municipal operations.
- ◇ Växjö municipality went from 3 to 17 suppliers, and 13 of them from the local area.

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INCREASING THE CAPACITY OF LOCAL AUTHORITIES TO FIGHT ENERGY POVERTY AND PROMOTE CLEAN AIR POLICIES IN LOCAL COMMUNITIES – ENERGY AGENCY OF PLOVDIV [BG]

The Energy Agency of Plovdiv (EAP) has been supporting the critical area of energy poverty and air pollution for over a decade.



Dedicated to the topic, EAP's InventAir Project investigated how low-income households, which cannot afford to change old, inefficient heating equipment or replace poor-quality heating fuels, become a primary cause for a dramatic seasonal increase in air pollution in their communities. A major obstacle to estimating the environmental, climate and health impact of energy poverty on climate change and associated air pollution is the lack of precise data on the quantities and quality of the fuels used by the households. To overcome this barrier, EAP developed a methodological framework for making an inventory of energy poverty – identifying, segmenting and assigning specific actions to each segment within energy-poor households.

EAP has prepared a “woodstove changeout” concept for the capital city of Sofia (Bulgaria) that envisages a comprehensive replacement of old heating equipment and installations in single- and multi-family residential buildings. The interventions will take place in Sofia by 2023 and replace the old heating stoves of over 10,000 energy-poor households with new heating equipment using electricity, natural gas or biomass. The interventions will slash an estimated 300 tons of pollutants per year and play a vital role in the overall reduction of pollutants in Sofia.

In addition, within its IDEA Project work, EAP focused on improving the capacity of public institutions to engage in campaigns and actions towards alleviating

energy poverty. The project has developed a platform with 15 innovative ICT educational features to address both the technical and social sides of the problem and also highlight the entrepreneurship possibilities in the area of providing energy advice. The platform supports unemployed people in identifying energy advising as an opportunity for them to find meaningful employment. The IDEA platform also serves as an international network of energy advisors active in energy-poor households that promotes personalised energy advising as the best way to disseminate information and increase the knowledge level. So far, over 30 experts have been involved in the project, and a national debate has started on the pathways to alleviating energy poverty in Bulgaria.

Over the long term, EAP aims to assist in shaping local, national and EU policies and actions for tackling energy poverty and air pollution. It will do this by raising public awareness of the link between inefficient heating practices among energy-poor households and the rapid rise in air pollution in their communities.

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OIL HEATING STEP OUT – ENU [AT]

Oil heating systems cause environmental problems and are a main source for greenhouse gas emissions from households. As a survey from eNu shows, many of them have been installed during the 80s and should be renewed. The oil price fluctuates, which causes problems for low income households. Furthermore, Austria pays up to 10.7 billion euros for energy imports. High energy costs and low ecological performance led to a substantial decrease in oil heating over the last decade. Even though renewables such as biomass heaters and heat pumps are very popular in Lower Austria, 14% of Lower Austria is still heated with oil.

The first step towards a sustainable energy system in the heating sector is to avoid new installations. Since the 1st of January 2019 oil heating is banned in Lower Austria for newly constructed buildings. The next step is to replace existing oil heating systems. Therefore information and motivation activities are focused on existing oil boilers. Information activities and subsidies are very important to reach this target. When an oil heating system is replaced by a renewable heating system in a community-owned building or facility, a bonus of up to 8.000 euros is provided by federal and regional governments.

The Lower Austrian Energy and Environment Agency supports citizens in the replacement of their oil heating systems with renewable heating systems. Therefore, a so-called “carefree package” has been developed and started with a pilot in 8 communities. A “heating coach” for households on renewable heat offers company-independent advice and supports the realization of new renewable heating systems, shares information on public subsidies as well as on the disposal of the oil tanks. When a pellets boiler is installed, this package is completed with a free supply of pellets for one year by the federal state of Lower Austria in cooperation with heating system manufactures, biomass suppliers and installers. Further benefits for heat pumps or district heating instead of an oil heating system are in preparation.



Another focus is on municipalities functioning as role models for households. Already 154 municipalities in Lower Austria have banned oil heating in buildings owned by the municipality. The main purpose of the ban is to strengthen the economic state of the region. The added value for regions is much larger when buildings are heated by renewable energy such as biomass or heat pumps because the energy is produced locally. Furthermore the annual fuel costs for oil heating are much higher than for renewable alternatives such as biomass or heat pumps. In addition, the transformation of heating systems from oil to renewables reduces CO₂-emissions.

Never forget: the use of renewables comes second and limiting the energy demand first. Therefore Energieberatung NÖ also provides a free heating monitoring service for municipalities. It monitors and analyses the heating system of municipal buildings for at least one week and reveals the optimization potential. After this, the municipalities receive instructions from an energy consultant for the rehabilitation of the heating system. For citizens, a similar service is provided by the Lower Austrian Energy and Environment Agency for the price of 30€.

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BUILDINGS ENERGY IMPROVEMENT CONTINUES ON ISLANDS ÎLES DU PONANT [FR]



On the three unconnected islands: Sein, Ouessant et Molène, the improvement of the energy efficiency of houses was carried on from 2012 to 2018. During this period 18% of main houses got improved with an amount of works that reached 2,46 M€ saving 822 000 l/year of gasoil.

“Les îles du Ponant” association tested a new program in 2019, it was funded mainly by EDF Systèmes Energétiques Insulaires” based on energy certificates market. The conclusion is that a program will be in place until 2022 to improve all buildings (houses but also utility buildings, craft workshops and shops). The subsidized work includes all work to insulate the roofs of the walls and carpentry, as well as work to build wood boilers, controlled mechanical ventilation, solar hot water production and regulation and heating programming.

The first estimates lead to the consideration of a new program being developed for two more years. The aim is to carried more than 1 M€ for energy improvement on buildings. This would save one more 500 000 l/year gasoil. The aim of this program is of course to reduce carbon dioxide emission on these three islands but also to be an example to the others “Ponant islands” and the mainland.

The introduction of smart meters since 2018 now allows an accurate calculation of energy gains and reductions in carbon dioxide emissions directly resulting from the works done more than estimation based on theoretical calculation.

In addition to this consumption reduction program, the agreement of the beneficiaries to an innovative new experiment is collected. It will allow to propose an off-peak hours interesting price linked with renewable energy production periods. On Ouessant island, a multi-source renewable production project is undertaken (wind, photovoltaic and tidal current). The full-hour/off-peak system is considered as a good way to move consumption during the production of renewables rather than during the use of diesel generators.

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© REA Kvarner

TURNING UNIJE INTO AN ENERGY INDEPENDENT ISLAND REA KVARNER [HR]

Unije, a small island in the Kvarner Bay, is on the path to becoming energy independent and a model for a number of similar small island communities in the Adriatic, contributing not only to their survival in terms of preventing the total depopulation but also to their socio-economic development.



The Island of Unije is one of the 1244 Croatian islands, with the area of 16,77 km² and is inhabited by 88 permanent residents, according to the 2011 Census. However, in the summer period, this number can increase up to ten times, leading to problems with water shortages, energy supply etc. In a study entitled “The Island of Unije: Energy Self-Sufficient Island”, prepared by REA Kvarner in cooperation with the University of Zagreb Faculty of Mechanical Engineering and Naval Architecture, different scenarios until 2020 and 2030 were examined, and concrete RES and EE measures proposed, leading to the start of “Unije – energy-independent island” project, initiated by the Primorje-Gorski Kotar County and coordinated by the Regional Energy Agency Kvarner.

In 2015, the replacement of the old street lighting with a new energy-efficient LED was conducted, and the construction of a desalination plant powered by renewable energy started in 2017. The installation of a ground photovoltaic power plant (up to 1 MW) is under preparation.

Furthermore, within the H2020 project INSULAE, a battery storage system of 1MW will be hybridized with the PV plant with a twofold objective: to accommodate all the PV plant generation within Unije grid and to enable Unije to become in the long-term an energy buffer for the entire archipelago.

The aim of INSULAE is to foster the deployment of innovative solutions for the EU islands decarbonization by developing and demonstrating at three Lighthouse Islands (located in Croatia, in Denmark and in Portugal) a set of interventions linked to seven replicable use cases, whose results will validate an Investment Planning Tool (IPT). The interventions will prove the ability of the use cases to develop RES-based systems 40-70% cheaper than the diesel generation.

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SAMSØ: CLIMATE ACTION WITH PEOPLE AT THE CENTER - SAMSØ ENERGY ACADEMY [DK]



Samsø, home to 3,724 people is an island of 114 km² located 15km off the Jutland peninsula. Its economy is based on agriculture and tourism. Already in 1997, Samsø decided to be a pioneer community in climate action and in only 10 years it became Denmark's 100% renewable energy island.

"Utopia is possible" was the slogan back then, but which process really made change possible? The fear of change is embedded in people, acknowledges Søren Hermansen, CEO of the Samsø Energy Academy and the local leader who introduced to the island community the idea of becoming the renewable energy island. We know what we have, we don't know what's in the future, he adds. To break this human resistance, we must invite people in a process to sit down and feel comfortable to talk about the unknown, he explains.

The open discussion that took place on Samsø allowed citizens to see what this change would mean for the island and their community and led to local co-ownership of on-shore and off-shore wind turbines, biomass-fueled district heating, solar panels and electric cars.

Nowadays, the stakes and ambitions are higher. 17 United Nations' Sustainable Development Goals have been agreed globally, agendas increasingly focus on climate change, and Denmark has a goal to be independent of fossil-based energy by 2050. These conditions create a reason for Samsø to set the bar even higher and attempt once more to lead in solutions that point to the future.

The island's ambition is to become fossil-free by 2030. To do so, the plan foresees that the excess electricity from wind will be stored instead of being sold to the grid, the local district heating system will be partly electrified, the number of electric cars will be further increased and local biomass from agriculture will be converted into biogas to substitute natural gas as the fuel for the ferry that connects the island with the mainland.

Always working "from best to next", Samsø has built a brand name for what successful community-centred energy transition with local benefits and sustainable local development can look like. Through the fossil-free island project, the Samsø Energy Academy expects to demonstrate how renewable energy and circular economy can be at the same time catalysts for the sustainability of a community, good business and effective climate action.

To inspire more local leaders to design a more sustainable future for their territories and engage in the energy transition the Energy Academy is reaching out to communities in Europe, Asia, Australia, North America, Africa. It participates in cooperation and knowledge exchange programmes, provides advice on sustainable community development and organises on Samsø study visits, workshops and leadership programmes for local leaders, stakeholders and policymakers from around the world.

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CLIMATE ADAPTATION & LONG-TERM ENERGY PLANNING

KYTHNOS SMART ISLAND - AEGEAN ENERGY AGENCY [GR]

“Kythnos Smart Island” is the biggest research and development project ever to be implemented in the Greek islands, and as such represents a lighthouse project both for Greece and the international community. With a budget of approximately 8 million euros, the project will help Kythnos embark on a local development paradigm that harnesses the unique natural and cultural capital of the island, that creates sustainable growth and offers high-quality of life to locals and visitors.

In the years to come, Kythnos will become a true “living lab” where innovative solutions for the efficient upgrade and smart management of local infrastructures, including energy, water, waste, transport and street lighting will be designed and deployed. These interventions will lay the foundation for the island to extend its tourism season beyond traditional peak periods and strengthen the interdependence of its primary, secondary and tertiary sectors; ultimately, building a local economy that is diverse, circular and sustainable.

Overall the project is set to have a significant positive impact on the Greek economy for three main reasons; first, Greek researchers and experts will be employed in the project, contributing to efforts of mitigating skilled migration and brain-drain; second, the project will offer solutions to lasting challenges related with infrastructure management in Kythnos, challenges facing also (many) other Greek islands; third, the knowledge produced will be transferred to other islands and geographically remote areas, mountainous and rural, and scaled-up in cities, offering valuable insights to the rise of the future “smart city”.

The selection of Kythnos as test-bed for this landmark project is linked with the fact that Kythnos is close to Athens and well-connected with the two major ports of Piraeus and Lavrio; is not included in the interconnection plans and will hence remain non-interconnected with the mainland electrical system for the coming years; and has a long and successful track-record of hosting innovative technologies since the 80’s.

KYTHNOS SMART ISLAND PROJECT
A vision for sustainable local development



-  Smart electric system
-  Smart demand response
-  Smart microgrids
-  Smart water management
-  Smart waste management
-  Smart transport & mobility
-  Smart street lighting
-  Smart Island Center

The project is implemented by the Network of Sustainable Greek Islands – DAFNI / Aegean Energy and Environment Agency and the Institute of Communication and Computer Systems of the National Technical University of Athens. For more information, see <https://bit.ly/32LSRYL>.

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SMALL DEMONSTRATION SITE: FIRST ADAPTIVE LIGHTING TEST AGIRE [IT]



At end of 2018, 112 lights were equipped with Diademe technology for smart lighting in ROME, EUR district. These devices are collecting data about luminance, traffic flow, air quality, noise level, temperature, pressure and pole inclination, providing adaptive lighting to the streets involved in the project.

A 15 days Testing, along Via dell'Aeronautica, was accomplished to evaluate how adaptive lighting system performs in urban environment and particularly to demonstrate that adaptive system is able to regulate lighting level on the base of real time traffic detection and luminance level.

Adaptive lighting data were compared with two different conditions: full light and pre-programmed cycle regulation. Full light is the standard regulation for ROMA EUR lighting fixture. Furthermore, street lights were regulated measuring real time luminance and traffic flow, providing however correct luminance level as prescribed by UNI 11248.

The conclusion of the Test was very encouraging. Energy saving through the Adaptive Lighting System, if compared with pre-regulated cycle, was higher than project target: 53% instead of 30%, while the performance was 66% if compared with full light driving, the current standard for ROMA EUR lighting plants.

In August 2019 about 70% of the 1.000 total lighting points have been equipped with the Life-Diademe System, as foreseen by the project targets and, very soon, they will be able to provide unexpected results.

The technical improvements during the implementation phase and a reduction in size and costs, combined with the advantages in terms of energy savings and emissions reduction gained, allow to be particularly optimistic concerning the Life-DIADEME System and to suppose favourably a good and wide spread of the system once the project will be completed.

In Brief

City site: Rome, EUR district

Small Test Site: 112 lights equipped with Diademe technology for smart lighting (2018)

Large Test Site: 1,000 lights to be equipped with Diademe technology for smart lighting (70% already done in August 2019)

Data collection for adaptive lighting: luminance, traffic flow, air quality, noise level, temperature, pressure and pole inclination

Life-DIADEME system allows to ensure:

- remarkable energy saving (up to 66%)
- visual safety
- reduction of CO2 emissions
- reduction of maintenance costs

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THE INTERREGIONAL STRATEGY OF SUSTAINABLE DEVELOPMENT OF ABRUZZO REGION – ARAEN ABRUZZO [IT]



Cascata del Vitello d'Oro, Farindola (Italy) © ARAEN

In 2018, the Abruzzo Region has signed a protocol agreement with the Ministry of the Environment (MATTM) to develop a regional Strategy of Sustainable Development in the framework of the

National Strategy of Sustainable Development, with the aim to implement the 17 goals of the 2030 Agenda (SDGs) for land resilience and economic, social, environmental development.

In the framework of this commitment, Abruzzo is part of the Interregional Coordination Forum with other neighboring Italian regions to develop common activities related to resilience and sustainable reconstruction with respect to residential, infrastructure, socio-economic systems of the inner-city territories with high seismicity and also within the CReIAMOPA project (modernization of the Public Administration in a sustainable framework). The strategy is implemented with the support of the Committee of Coordination of all Abruzzo Universities (CCRU), to ensure the scientific support and cooperation for the implementation of the strategy, and the 44 Regional Education Centres (as part of INFEA – Information, Training and Environmental Education

Italian network) spread throughout the regional territory, to better connect with all stakeholders and citizens and to disseminate and transfer new models, initiatives and actions.

The strategy of sustainable development of Abruzzo Region is interregional and interdisciplinary since it refers to the governance of the whole territory, environment and energy. In fact, it coordinates with the regional strategy of adaptation to climate change which is being developed through several tools, policies and instruments. Between them, it is worth to highlight the work that the Region is carrying out with all municipalities of the territory (305) to update the SEAP (Sustainable Energy Action Plan) developed within the Covenant of Mayors into SECAP (Sustainable Energy and Climate Action Plan) according to a district logic (climate homogenous area).

As a matter of fact, Abruzzo Region has established a permanent task force, made up by representatives of all regional departments, with the aim to harmonize and coordinate all plans and programs. Last but not least, the sustainable strategy involves directly citizens and stakeholders to define the interventions to be implemented (meetings, conferences and consultations with experts and policy-makers from the regional and local governments).

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A REFERENCE DECISION-MAKING WEB-TOOL FOR TERRITORIES IN TRANSITION – AURA-EE [FR]

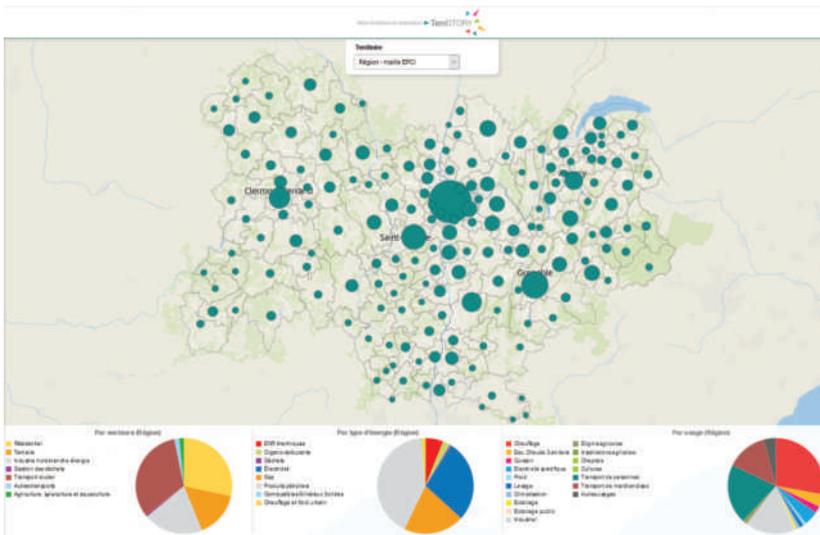
The Auvergne Rhône-Alpes region counts more than 4 000 municipalities. AURA-EE, the regional energy and environment agency, developed a free access web-tool to help municipalities to plan and monitor their energy transition.

Thanks to a dynamic and interactive visual interface, TerriSTORY® enables local stakeholders to better grasp their territory, assess its potential and identify clues to prioritise development in support of their decision process and plans. It provides a set of functions to build, follow-up and assess the territories' trajectory and simulate scenarios to visualise their socio-economic



© AURA-EE

(electric bill reductions, generated added value, maintained employment, local tax benefits) and environmental impacts (energy savings, prevention of GHG emissions).



© AURA-EE

TerriSTORY® is a vast compilation of territorial benchmarks covering a wide range of subjects for territories in transition such as: > energy consumption > employment in the building sector > monetary energy balance > share of households supplied by district heating > commuting flows > anaerobic digestion plants.

TerriSTORY® offers advanced functionalities including the analysis of resource reserves and flows, the assessment of the socio-economic and environmental impacts of the Sustainable Energy and Climate Action

Plans and follow-up with scenarios. In addition of being an asset for territorial strategies, it is also a reflection of collective cooperation in which each territory contributes to the achievement of global scale results through the quest of its own objectives, whether it is at regional, national, European or international scale.

TerriSTORY® creates a community of inclusive territories, willing to collectively raise the bar of the energy and environmental transition.

TerriSTORY® uses public domain data and multi-sources from the National Institute of Statistics and Economic Research, the National Institute of Geographical and Forestry Information, public sector services, AURA-EE, regional energy, climate and air quality observatory, etc.

TerriSTORY® is :

- Simple to use, terristory.fr is accessible to all.
- Free, it is a collective tool that aims to make territorial knowledge available to all
- Ever-evolving, TerriSTORY® is frequently updated with new data-sets and new functions.

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EUROPEAN CLIMATE ADAPTATION AWARD: SYSTEMATIC SUPPORT FOR GERMAN MUNICIPALITIES ON THEIR WAY TO ADAPT TO CLIMATE CHANGE – B.&S.U. [DE]

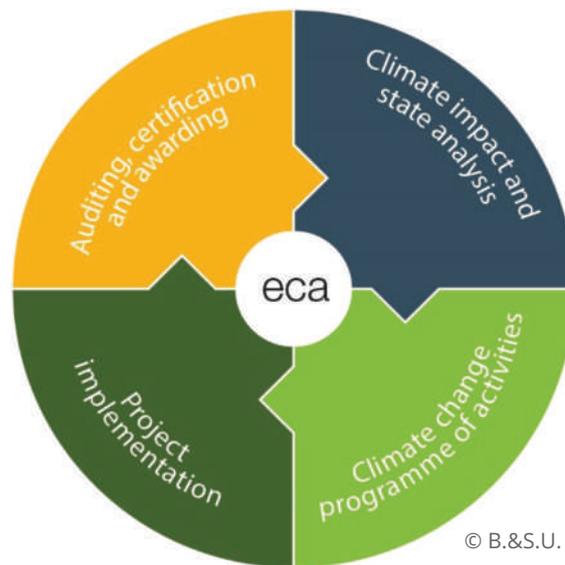
Climate adaptation became an important challenge for municipalities and regions, as the consequences of climate change are increasingly evident. But climate adaptation is a cross-cutting issue and covers a wide range of specialist fields in a municipality. Therefore, the implementation of adequate administration and structures is key to have an integrated proceeding and to take into account different perspectives and requirements. B.&S.U. mbH developed the European Climate Adaptation Award (eca), which is a quality management process and certification system and enables municipalities to integrate climate adaptation into their communal processes and their daily work.

The eca defines four essential process steps, which have to be regularly repeated in order to create sustainable results and a continuous process of improvement:

1. Analysis of climate impact and current state: The participating municipality receives information on past and projected climatic changes.
2. Already implemented activities with regard to climate adaptation are discussed with local experts. Based on that, the eca provides a profile of strengths and weaknesses that shows in which sectors further adaptation measures would be most reasonable

or rather most necessary. A catalogue of measures gives guidance and suggestions for new measures. It includes measures from all relevant fields of actions ranging from regional and urban development planning to buildings, social infrastructure, energy and water supply, transport and civil protection up to industry and commerce, tourism, agriculture, forestry, nature conservation and human health.

3. Planning of activities: By means of the provided catalogue suitable measures are discussed with the responsible stakeholders on-site and combined in a climate change programme of activities. For each adaptation measure degree of implementation, time horizon, the required work steps, the responsibilities, priorities and the necessary resource input are defined.
4. Implementation of activities: The structured eca process guarantees a systematic and target-oriented implementation of measures as well as a steady improvement of the inter-divisionally cooperation. An accredited eca advisor supports the municipality throughout the whole process.
5. Auditing, certification and awarding: After usually four years the municipality can undergo an external audit concerning its climate adaptation efforts. It is conducted by an independent eca auditor and ensures an objective comparability between different



The more comprehensive the adaptation successes are, the better the certification.

The eca has been successfully tested with financial support of the Ministries of the Environment of the Federal State of North Rhine-Westphalia and the Free State of Saxony in a pilot project with 12 municipalities and is now available for municipalities throughout Germany.

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THERMAL RENOVATION AND INSTALLATION OF AIR RECUPERATION IN SECONDARY MEDICAL SCHOOL KROMĚŘÍŽ – EAZK [CZ]

As part of the EU project BOOSTE-CE, the Energy Agency of the Zlín Region aims to achieve a long-lasting positive impact on Energy Efficiency in public buildings through its activities in promoting energy efficiency, smart metering and energy management. In order to achieve such goal, the partnership created the OnePlace web platform, where the project results and outcomes are collected and presented to experts and to the general public in a clear and illustrative way.

It has supported several projects in their application and implementation of energy efficient improvements, many of which were approved and funded under the National Operational Programme Environment 2014-2020, including the project on Thermal renovation and installation of air recuperation in the secondary medical School Kroměříž.



The project

The goal of this project was to improve heat insulation and to install air recuperation in the whole school to reduce heating demand, and therefore, using energy more efficiently. To achieve this, the project focused on

the thermal reconstruction of the building envelope: improving the outer walls by 14 cm of EPS with $\lambda = 0,039$ W/(mK) and insulating the roof with 300 mm mineral wool with $\lambda = 0,037$ W/(mK). Furthermore, the existing windows were replaced by new plastic windows with a U-value of 0,9 W/(m²K) and the doors were improved with $U = 1,2$ W/m²K.

One of the most important parts of the project was upgrading the streetlight to LED technology, which means reducing energy consumption by 42 GJ per year. Additionally, because of the inadequate indoor environment, air recuperation for the whole school was projected with the overall power of 35 900 m³/h. Nowadays, the heating demand of the building is 102 kWh/(m².a), which means A-class for this type of building. The total investment value of the project is 2 373 680 €, and it was co-financed by the Operational Programme Environment of the Czech Republic with subsidy € 703 900; and by Zlín region.

Results

- The main project implementation benefits are an overall reconstruction of the school significantly reduced consumption of the natural gas and improved the indoor environment as well as the outer design of the building.
- The reduction of energy consumption and operational costs has a positive effect on a sustainable operation of the school for the next 40 years.
- Mechanical ventilation is necessary for suitable indoor climate. A visible benefit is also a comfortable place for teachers and students.

Furthermore, the Energy Agency of the Zlín Region is continuously monitoring the consumption of the natural gas, electricity and water consumption of the buildings related to this project.

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NEW BOOST TO ELECTRIC RENEWABLES IN CASTILLA Y LEÓN - EREN [ES]



With an installed capacity of 10.534 MW, Castilla y León's share in the Spanish electric renewables' capacity is 22%. As an average, electric renewables cover 149% of the electricity demand in the Region.

In the short and medium term, Castilla y León expects a huge growth in electric renewables, with an outlook of new 6.400 MW of installed capacity, fundamentally in PV and Wind.

Castilla y León's current installed capacity in electric renewables adds up to 10.534 MW: 5.591 MW wind, 4.401 MW hydro, 495 MW PV and 47 MW biomass. Electric renewables account for 78% of the total installed electric capacity in Castilla y León, and the Region's share in the Spanish electric renewables' capacity is 22% (26% share in hydro, 24% in wind, 11% in PV).

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149% of the electricity demand in Castilla y León (14.056 GWh) is covered by renewables, compared to 37% in Spain, as an average. Wind power covers 81% of the electricity demand, as an average, with peaks over 90%. In a year, installed capacity in the region will increase by 915 MW in wind and 300 MW in PV. But in the medium term, total new developments in Castilla y León are expected to add up to 2.100 MW in wind and 4.300 MW in PV.

These new developments in electric renewables capacity will more than offset the closure of the four regional coal-fired generation plants (2.457 MW), expected by mid-2020. By then, electricity generation in Castilla y León will only come from renewables and CHP (Combined Heat and Power). But a new 50 MW biomass plant will start operation in 2020 in the heart of the coal mining area, creating 50 new jobs in the plant and 400 new jobs in the logistics to supply the biomass to the plant.

In economic terms, the new wind developments in the Region, solely, will mean an investment of 842 M€, 2.640 jobs during construction and commissioning, 2,5 M€ in land rentals, 21 M€ in municipal licenses and 3,7 M€ per year in municipal taxes. There is no similar support to the economy of rural areas by any other sector of activity. Moreover, Spain will be able to meet its 2020 European goals in renewables thanks to the contribution from Castilla y León.

INSULAR MULTI LEVEL REGIONAL GOVERNANCE FOR THE CLEAN ENERGY TRANSITION OF THE CRETE ISLAND - CRETE REGIONAL ENERGY AGENCY [GR]



The Regional Development Fund of Crete implements a systematic procedure of multi participatory and structured dialogue and working plan for the establishment of a road map and an action plan for the clean energy transition of the island of Crete.

This procedure must combine:

- existing study for the Regional energy planning existing municipal SEAPs and the on-going ones national priorities – as are specified for the island of Crete
- climate action plan at the regional level
- RIS3 regional smart innovation strategies for sustainable energy and climate change
- Regional Operational – Community Support Framework
- scenarios for the electricity and gas interconnections to the mainland
- research and innovation sectoral capabilities and priorities
- interests of the investors
- energy cooperatives
- social interests
- others

The island figures:

- Permanent population: 680.000
- Annual tourists arrivals: 4.500.000
- Area: 8.336 km²
- Distance from the mainland: 339 km²
- Main economic activities: tourism, agriculture, trade
- Electrical system: Non-inter connected
- Res share in the electricity mix: 25%

The Regional Energy Agency of Crete is the regional coordinator of the Covenant of Mayors for the whole island of Crete and member of the Regional Innovation Council, capitalizing its multiannual experience in participatory energy and climate regional planning. The island of Crete is the biggest one among the 26 pilot islands chosen in 2019 by the secretariat for Clean Energy for EU islands. Therefore the exercise for the clean energy transition of such a big island is much more complex and time-consuming and the results will be of a particular interest. The structured and strategic dialogue between all relevant stakeholders are also combined with horizontal assessment for sectoral on-going works and implementations for energy efficiency in public and private buildings, for bioclimatic public places, for energy cooperatives, for public lighting, for virtual net metering in municipalities, for sustainable energy education in schools etc.

The main expected outcomes:

- Built-up a common vision and consensus for the energy transition.
- Combine Sustainable Energy and Climate Action Plan of the whole island (SECAP-I) with the 24 municipal SECAPS.
- Prioritize energy efficiency and energy saving in all activity sectors.
- Maximize the RES penetration in the energy system.
- Establish an efficient electricity management system combining the electricity interconnections and the local RES electricity production.
- Attract and support sustainable energy and energy efficiency investments.
- Combine the Smart Regional Specialization of the Crete Region with pilot and innovative energy projects.
- Design and implement a continuous and multi-faced communication – dissemination – promotion plan for the regional energy transition.

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LOCAL ENERGY PLANS FOR THE MUNICIPALITIES IN THE PRAHOVA COUNTY - AE3R PLOIESTI-PRAHOVA [RO]

The Energy Efficiency and Renewable Energy Agency «AE3R Ploiesti-Prahova» has contributed and also elaborated Local Energy Action Plans for some of the public authorities in the Prahova County. These actions come as a follow up to the diplomas obtained by Mr. Potlogia Bogdan and Mr. Sorokin Radu as energy managers for municipalities.

Having a baseline assessment of the local energy consumptions and subsequently a strategy is extremely important. Therefore, the AE3R team tried to reach out to as many municipalities as they could, but also to offer their help and assistance for elaborating their plans. In addition, they are the liaison between the municipalities, the energy supply companies, the companies which install renewable energy sources or offer energy efficiency services, and last but not least, the final consumers: the citizens.

Another objective is to improve existing local energy plans, as they require constant upgrading and a setting out a clear path to reach the set-out targets. Thus, the agency's experts performed analyzes of the Energy Efficiency Strategies in the municipalities of Mizil and Urlati, which generated a series of measures and recommendations, according to the new legislative changes and the emergence of new technologies on the market.



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IMPLEMENTING ENERGY EFFICIENCY MEASURES



BETTER ENERGY COMMUNITIES GRANT PROGRAMME 2018 3 COUNTIES ENERGY AGENCY [IE]



J+M Ryan Dairies Farm - Installation of PV panels with a capacity of 9.54kWp and with 10kWh battery storage system. © 3CEA

In 2018, 3 Counties Energy Agency (3cea) enjoyed one of its busiest years on record helping a growing number of home-owners, businesses, community groups, voluntary housing associations and organisations to reduce their energy costs and achieve energy savings. The works were also supported by the Sustainable Energy Authority of Ireland (SEAI)'s annual grant programme called Better Energy Communities (BEC). This is a national grant programme aimed at encouraging the delivery of energy savings projects.

In 2018, a total of 41 non-domestic projects were managed and coordinated by 3cea with a mixture of public, private and community projects. All 41 projects were grouped into 5 applications led by the Local Authorities of the midlands and southeast region. 157 domestic houses were also upgraded to meet a minimum BER rating of B2 (>100kWh/m²).

The grants available range from 35% – 50% for domestic works, 30% funding for the public sector, commercial and SME projects and up to 50% for community and not-for-profit groups.

In Ireland, a growing number of home-owners and businesses are availing of energy grant supports and investing in energy efficiency upgrades which will have a positive impact on the environment and climate. It is an encouraging trend a year on from when the former Carlow Kilkenny Energy Agency added Wexford to the fold to become 3CEA. The projects completed in 2018 have saved a total of 5.21GWh primary energy, verified using IV MVP standards (completed August 2019).

An example of the energy saving measures carried out include:

- Internal & external lighting upgrades
- Wall insulation (external, internal & cavity wall fill)
- Attic/roof insulation
- Windows & Doors upgrade
- Replacement of heating systems
- Installation of heating control
- Installation of PV solar panels
- Beer cooling system upgrades
- Public Lighting upgrades

Total project investment: €5,960,000 of which €2,175,000 was grant funded. This energy saving equates to a reduction in energy expenditure of more than €429,000 and a reduction in CO₂ emissions by 6,474 tonnes (see numbers on page 51).

Apart from energy savings, upgrading the buildings has also seen a significant improvement in both usage and thermal comfort of the buildings. It has been found that a large number of the community buildings are now being used up to 6 times more than previously, with new groups gathering to use the upgraded facilities. Similarly, upgrades to homes have resulted in improved whole-house comfort and an overall increase in health and wellbeing.

Better Energy Communities	Delivered energy (kwh)	Primary Energy (kwh)	CO2 Savings (Tonnes)	Total Cost (€)	Grant (€)	Cost after grant (€)	Delivered energy (€)
BEC 2018	4,118,253	7,637,584	6,474	€4,369,197	€1,451,248	€2,917,949	€429,371

Right: J+M Ryan Dairies Farm - Installation of PV panels with a capacity of 9.54kWp and with 10kWh battery storage system. © 3CEA

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THE SPEEDIER PROJECT: SME PROGRAM FOR ENERGY EFFICIENCY THROUGH DELIVERY AND IMPLEMENTATION OF ENERGY AUDITS AEEPМ [RO]



On June 18th and 19th 2019 SPEEDIER, a European project within the H2020 framework, officially kicked off. This 2.5-years project aims to address the barriers faced by Small & Medium Enterprises

(SMEs) that prevent them from undertaking energy audits and implementing the recommended energy-saving measures. SMEs account for 12% of global energy consumption, but often struggle to implement simple energy saving measures due to a lack of in-house knowledge, expertise and resources.

To address these issues, SPEEDIER (acronym for SME Program for Energy Efficiency through Delivery and implementation of Energy Audits), will provide a self-financing outsourced energy management service to SMEs. By outsourcing the role of energy manager to specially trained SPEEDIER Experts, SMEs will be able to access the expertise they need whenever they need it, leading to higher uptake of energy audits and greater implementation of energy efficiency measures.

To achieve these aims, SPEEDIER will target groups of SMEs in 4 EU pilot regions: in Spain, the project will engage with SMEs based at a single business park to demonstrate the advantages of clustering SMEs to give them better access to the economies of large scale

projects; in Ireland and Romania, SPEEDIER will address SMEs in the manufacturing and hospitality sectors respectively; and in Italy, a more general approach of accessing SMEs from any sector via ESCOs will be tested.

SPEEDIER is a highly innovative one-stop-shop solution that applies an integrated approach to energy management, providing information, advice, capacity building, energy auditing, financing, implementation of energy efficiency solutions and monitoring of impacts.

SPEEDIER is expected to contribute European energy efficiency targets by saving approximately 8 GWh/year of primary energy, and 1,280 tCO₂/year. Within the lifetime of the project, SPEEDIER will train more than 650 staff at SMEs across a range of sectors in the best practices of energy efficiency. The project will build capacity for ongoing roll out around Europe by training 50 SPEEDIER experts to deliver the SPEEDIER Service.

The consortium delivering this project is led by the IERC and consists of 6 Research and Technology Centers (Limerick Institute of Technology, Fundación Corporación Tecnológica de Andalucía, Parque Científico y Tecnológico Cartuja, Politécnico de Milano and Institut de Tecnologia de la Construcción de Catalunya), 3 SMEs (TFC Research & Innovation Limited, Sustainable Innovations and Vertech Group), and 1 Non-Governmental Organisation (NGO) – Asociatia Agentia pentru Efficienta Energetica si Protectia Mediului.

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1.300 TONNES OF CO2 PER YEAR SAVED BY ENERGY REFURBISHMENT OF 24 PUBLIC BUILDINGS IN THE CITY OF MARIBOR - ENERGAP [SI]

Climate changes largely shape our lives and choices. We all face them. The city of Maribor is committed to the sustainable development and energy transition and focuses on the projects, measures and activities which enhance the quality of its citizens while being friendly to our environment. Together with ENERGAP (the energy agency of Podravje), the City of Maribor strives to reduce energy use and costs, improve energy efficiency and to reduce the carbon footprint.

In 2019, the Municipality of Maribor in cooperation with ENERGAP has put a lot of effort and attention to finish the project "Energy refurbishment of 24 public buildings in the City of Maribor using Energy Contracting model". The project has been prepared, co-financed and implemented in accordance with the provisions of the Energy Refurbishment Program for Public Buildings of the Ministry of Infrastructure and includes Cohesion funds from the financial perspective 2014-2020. The project was implemented as a public-private partnership together with Petrol Company, the biggest ESCO Company.

Energy efficient measures and introduction of renewable energy sources were implemented in primary schools, kindergartens, administrative buildings, Ice (Skate) Hall and Sport Hall. They included improvement of envelopes, changes of windows and doors, insulations of attic and basements, refurbishment of heating systems

including thermostatic valves, new indoor lighting and introduction of energy management. Special attention is given to the involvement of the users, information and educational activities to positively change their climate related behaviour.

The project was the biggest one in the region in 2019. Its implementation was followed by many stakeholders and media, and it is already a good practice in the country. Costs of the project were 12 million EUR and its main objectives are reducing energy consumption by 5.952 MWh, energy costs by 446.000 EUR, maintenance costs by 28.500 EUR and reducing CO2 emissions by 1.305 tonnes per year.

The City of Maribor and Energy Agency of Podravje will work hard in the next years to achieve planned savings and assure the best working and living conditions in refurbished buildings. The project has given us the motivation and new ideas to go ahead towards energy and resource-efficient future.

Pictures: Primary school Ludvik Pliberšek Maribor- before and after Energy refurbishment © ENERGAP

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COLLABORATION BETWEEN STAKEHOLDERS CAN BOOST ENERGY EFFICIENCY IN BUILDINGS – ENERGIKONTOR NORR [SE]

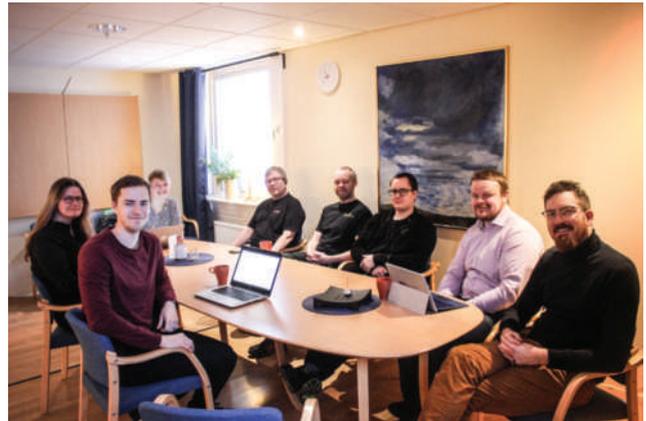
A new way to achieve energy efficiency in buildings by gathering different stakeholders in collaboration groups has been tested in northern Sweden. The groups have worked with selected buildings and have made efforts to make them more energy efficient. This process has been successful and led to great exchange, new insights and several energy efficiency actions

In 2016 North Sweden Energy Agency started the project “LEK³ - Sustainable real estate use through collaboration”, funded by the European Regional Development Fund. The main idea has been to achieve a more efficient energy use in buildings with the collaboration between different stakeholders as a method. Six groups from various municipalities in Norrbotten and Västerbotten have participated in the project. All groups have included a mix of participants coming from both private and public property owners, with roles in management, operating personnel, tenants and managers/personnel at energy companies.

Each group selected one or several of their own buildings which have been the focus for the project. All buildings have been subject for energy mapping and the suggested actions are estimated to save 10-40 percent of energy per year.

The group structure has contributed to a great exchange between stakeholders and it also led to a better understanding of other stakeholders’ needs and knowledge. No matter what role the participants had, they contributed to a broader perspective on energy efficiency. The method that describes how property owners can start their energy efficiency work by creating own collaboration groups is being documented and summarized in a book. The book will also include successful examples and inspiration.

The project started 2016-08-01 and has ended on 2019-11-30. Before the project, a preparatory project took place to seek stakeholders and buildings that could be in, at that time, a possible 3-year project. When the preparatory project ended, there were six different stakeholders that wanted to participate in the project and they also co-financed by money or in-kind contributions.



Picture: Collaboration between property owners and others connected to the buildings e.g. energy companies and operating personnel has been a success in reducing the climate impact in north Sweden. © Energikontor Norr

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THE TIPPING WHEEL: BOOSTING INNOVATION STRATEGIES FOR ISLANDS- PROVINCE OF FRYSLÂN [NL]

The TIPPING approach and wheel has been designed in the framework of the EU Interreg Islands of Innovation project. Its aim is to be used as a tool for improving innovation policy or governance. This guide supports facilitators with the use of the TIPPING Wheel, in order to stimulate bottom-up, advanced innovation strategies and projects for islands' local and regional governments.

The TIPPING Wheel can be used for the assessment of an islands' innovation policy aimed at:

1. An overall benchmark between islands or parts of an island;
2. Comparison between the status quo and a desired future: 'the dream';
3. A challenge, sector, or aspect benchmark (energy, materials, water, transport, agriculture, circular economy, tourism, emerging technology sectors, etc.);
4. The creation of a basis and inspiration for a comprehensive new -or to be renewed- policy program with a special thematic focus and engaging-oriented projects;
5. Functioning as a supportive tool for policy innovation brainstorm.

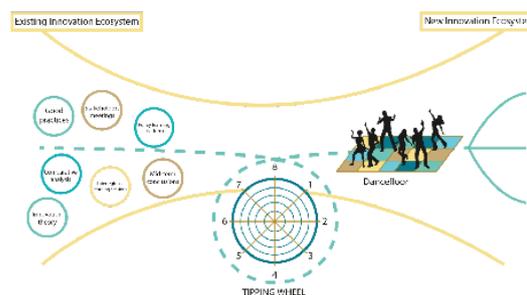
Innovations in the wheel can be: (a) realized ones to learn from; (b) starting projects on novel issues, (c) future dreams/ambitions.

Many definitions of innovation do exist. They vary from specific technological novums to broad societal changes. Here we follow Celik (2018) and refer to innovation as a new social-cultural practice, including possible technical and economic changes, aimed at realizing one or more

of the 17 UN Sustainable Development Goals (UN, 2017). The innovative practice can adopt various shapes, like a new technique or technical process, a new service, a new market, a new business, a new socio-technical system, or a combination of these concepts.

With respect to the notion "policy" we assume a broad concept, better expressed by the notion "governance", which stipulates the insight that usually government policies include/require cooperation, sharing, and partnerships with other actors and stakeholders in society, such as industry, other governments, inhabitants, service users (various consumers), knowledge institutes, NGOs, etc.

TIPPING as creative tool strives to contribute to governance innovation on islands and similar (more or less) isolated areas following the Islands of Innovation Model (see image below). This model has been developed to define the common issues and methodology for all partners in the EU Islands of Innovation project, to be used in regional action plan development.



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COMPREHENSIVE ENERGY REFURBISHMENT OF PUBLIC BUILDINGS IN MEDJIMURJE COUNTY - MENEА [HR]



Medjimurje Energy Agency Ltd. (MENEА) acts as a project coordinator for projects of comprehensive energy refurbishment of public buildings in Medjimurje County. The coordination of the named projects includes managing the financial and administrative side of projects, technical support in developing project documentation, as well as, constant control of planned and implemented works. All of the buildings in question are owned by institutions of which Medjimurje County is a founder, such as elementary schools, high schools, homes for elderly people, hospital, etc.

In the past three years, a total of 17 buildings entered this programme. In the first cycle of investment, 6 buildings entered the programme – two elementary schools, one sports hall connected to the primary school, a high school with a sports hall, students’ workshops and a dormitory. The total investment was more than 3,6 million euro with a co-financing rate of over 88%. Those buildings are already refurbished and they started to generate savings, both in energy consumption and in energy costs. The average configured savings for them are 64% of heating energy.



© MENEА

In the second cycle, another 11 buildings were applied and were granted the co-financing of the energy refurbishment measures. Seven of them are elementary schools, one sports hall, one high school, one home for elderly people and a general hospital in Čakovec. Total investments that are planned to be triggered for this cycle rise up to 11,8 million euro while the co-financing

rate is up to 80%. The savings of the heating energy that will be generated after the investment is completed, are planned to be around 61% in comparison with the heat energy consumption prior to the refurbishment.

Within the next two-years period, it is planned to include approximately another 10 buildings through the third cycle of comprehensive energy refurbishment of public buildings. The buildings that are planned to be applied to the forthcoming call are mainly elementary schools and their sports halls with one additional high school. The total planned investment in this cycle will be around 4,7 million euro with a co-financing rate of around 80%. The savings in energy consumption of the energy for heating are calculated to more than 55% in general, but for some buildings, it comes up to 70%.

So far, the investments triggered by this programme in Medjmurje County amounts to over 15 million euro but furthermore, over 70% of those funds are being co-financed by European Regional Development Fund (ERDF) through national Operational Plan Competitiveness and Cohesion. The rest of the co-financing is being received through the national fund for co-financing of projects that are being implemented through EU programmes, and the remaining costs are being covered by the regional government budget.

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THE PRIAP PROJECT: INTEGRAL RENOVATION OF PROVINCIAL STREET LIGHTING - SODEBUR [ES]



Village in Burgos Province © SODEBUR

The Society for the Development of the Province of Burgos (SODEBUR) works to promote social and economic development in the rural areas of this Spanish province. SODEBUR is a public company with 100% funding from the Provincial Government.

The organization is structured in four main areas: Investments and Industrial Engineering, Economic and Social Promotion, Institutional Cooperation and Image and Tourism.

- **Investments and Industrial Engineering:** this department supports the Provincial Government and all its Town Halls in the development of its installations and industrial projects.
- **Economical and Social Promotion:** it is in charge of the planning and strategic development of the economy and social activities in the province.

During the year 2015, SODEBUR developed the new strategic plan for the province. The plan contains different actions to be implemented from 2015 to 2020 in order to improve the quality of life of its citizens.

There are 25 projects divided into five main axes: image and tourism, economic environment, connectivity, human capital and quality of life. One of these programmes promotes the development of a sustainable territory and the reduction of energy consumption. Within this programme, SODEBUR developed an ambitious project called "Integral Renovation of Provincial Street lighting Project" (PRIAP).

PRIAP changed the street lighting into a LED system in 179 municipalities in the Burgos province, reaching 592 small villages. It had a duration of 48 months, ending in October 2019 with a budget of 14.120.776,86 € (50% by the provincial corporation, and 50% by municipalities).

The project consisted of three phases:

- Feasibility studies and projects for the integral renovation of street lighting. During this phase, municipalities signed their commitment to the project. 257 municipalities from 359 municipalities in Burgos added to PRIAP project. It was redacted feasibility studies and projects for the integral renovation of

street lighting for these 257 municipalities according to laws and regulations in force.

- Public call for subsidies to municipalities aimed to performance of street lighting renovations. SODEBUR prepared a call for subsidy bases where 50% of the action is granted. The only condition is that actuation must be done according to the project PRIAP provided.
- Work execution. Municipalities are in charge to contract the actuation but SODEBUR is in charge of construction management.

The main goals reached were:

- Reduction of energy consumption the approximately 82 millions of kWh during the ten years expected for the life of the LED technology, and 25 M kg CO₂ reduced during the same 10 years.
- Replacement of 43.576 luminaries to LED technology
- 2 million Euros of saving during the first year.

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TIPPERARY HEALTHY HOMES SCHEME – TIPPERARY ENERGY AGENCY [IE]

The Tipperary Healthy Homes Scheme aims to move homeowners away from fossil fuel heating systems and replace with a heatpump. It provides the homeowner with a warmer, healthier home; lowering running costs, energy consumption and health benefits. The homeowner will be at the cutting edge of energy performance of houses.



This scheme has been running since 2017 and has completed forty life changing retrofits for the people of Tipperary. Since 2017 the scheme has prioritised homes for those suffering with illnesses such as Chronic Obstructive Pulmonary Disease (COPD) or Asthma. It is open to those is receipt of certain social welfare supplements.

All existing combustion appliances are replaced with a heatpump and ventilation system. This rids the home of dust and damp and removes fumes which are known to exacerbate serious respiratory health illnesses. Combined with other energy measures such as insulation

and air tightness measures, the upgrade transforms the home and vastly improves the comfort and health of the occupants. The home will consume less energy, which will result in lower running costs. One such homeowner whose house has been transformed is Aileen McCarthy. Aileen and her husband John live in their bungalow, built in 1976 in Cullen village Co. Tipperary. She was going to convert to an oil boiler, but then a health worker told her about the Tipperary Healthy Homes Scheme.

Prior to the renovations their home was cold, which meant that when Aileen got up in the middle of the night to feed the fire in the kitchen. The temperature in the house was constantly changing depending on the strength of the fire.

Aileen says "Since the job was done I seem to have improved immensely. Now there's no dirt, no dust and no fumes. It's absolutely fantastic. I have been able to reduce the oxygen. Now I am on oxygen all through the night and for an hour or two in the afternoon. Before, I could have been on it all day. I couldn't even hang clothes on the line without oxygen I was so tired."

The plan for 2020 is to retrofit up to 25 homes in County Tipperary.

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SUPPORTING RENEWABLE ENERGY SOURCES

SUPPORT TO THE IMPLEMENTATION OF THE NEW REGIONAL ENERGY AND CLIMATE STRATEGY IN ILE-DE-FRANCE – AREC ÎLE-DE-FRANCE [FR]

In 2019, the Île-de-France region set new climate and energy goals: by 2050, it should have 100% of its energy consumption covered by renewable energy sources, with a particular emphasis on:

- Solar energy: 10 million euros investment from 2020 to double the solar park in the Paris region within 2 years and bring solar energy to 1 million citizens,
- The biogas sector: 23.7 million euros already spent on 28 biogas plants,
- Hydrogen: an «Île-de-France Territory Hydrogen» charter has been signed with stakeholders of the field to improve the mobility of Ile-de-France citizens, the air quality and to preserve the climate.



In relation to solar energy, AREC Île-de-France makes an active contribution to the development of the regional policy. It builds with other actors the solar atlas, a digital tool able to simulate solar production and produce solar radiation maps backed up by an advice service. It also supports the region in the management of calls for proposals. This should allow to double the solar park by 2021 and raise the regional energy production to 16% of renewable energy (RES) production.

AREC brings its expertise to the region for the biomass regional plan by participating in calls for proposals dedicated to biogas plants. Currently in Ile-de-France, there are 25 running biogas plants, while 50 more are in the pipeline. The objective is to produce 5 TWh/y in 2030. AREC is also in charge of the future digital platform on this issue and of the management of the stakeholders' network. The objective is that biogas should represent 14% of RES regional production.

In addition, the Region aims to develop hydrogen as a solution for clean mobility, alongside electricity and bioGNV. Therefore, AREC will offer workshops for professionals and capacity-building activities for local authorities. It will also support the dissemination of information at regional level through site visits and publications.

Last but not least, AREC will continue its support to deep geothermal energy - the first RES of the region - to match the regional ambition to multiply by 3,5 the heat production from district heating running on heat recovered from geothermal water.

NB: The year 2019 marked the rebranding of the regional energy agency of Île-de-France from IAU to AREC. This new structure, which is also the new energy and climate division of L'Institut Paris Region, was broadened in scope since it now covers various work areas such as energy and climate, but also biodiversity and waste.

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A NATURAL PLATFORM FOR THE FUTURE OF SOLAR ENERGY SYSTEMS MÄLARDALEN ENERGY AGENCY [SE]



The Swedish Solar Expo sees a steadily increasing number of visitors and exhibitors, each year. In October of 2019 the exhibition was organized for the sixth consecutive year, with a record-breaking number of attendants.

In total, The Swedish Solar Expo hosted more than 1 000 visitors and roughly 50 exhibitors from all over the world. It has become one of the largest exhibitions on cleantech in Sweden, making the city of Uppsala an important meeting place for businesses, property owners and decision makers looking for inspiration, innovation and knowledge exchange on solar power and energy storage

technology. It is a platform for dialogue on the latest cutting-edge technology and projects, political trends and current challenges facing the field. A new addition to this year's exhibition was a parallel agenda showcasing green investments.

The possibilities to network and attend workshops and lectures ensure that there are many beneficial connections made between representatives from academia and the business sector as well as the public sector. This year over a third of the exhibitors travelled in from abroad, which is a good indicator of the maturity of the Swedish solar power market.

About the exhibition

The Swedish Solar Expo has been arranged on an annual basis since 2014 by the organizations Mälardalen Energy Agency and STUNS Energy. Initially the target group was energy and property industries, but today it creates value for those interested in sustainable energy technologies and systems.

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SOL I VÄST - ENERGIKONTOR VÄST [SE]

Sol i Väst (Solar in West) is a public funded three-years project (2017-2019) with the purpose to educate and increase knowledge about photovoltaic electricity, to help initiatives for procurement and building photovoltaic parks. During the project period the number of members and participating municipalities has increased and now it involves the majority of municipalities in the region Västra Götaland, which has 49 municipalities and 1,7 million inhabitants in total.

The project management, from Energikontor Väst and Innovatum AB, in Trollhättan Sweden, has developed tools and training material and has spread this publicly through meetings, webpages, seminars, conferences and newsletters. Feasibility studies, Profitability, Purchasing and Installation & Maintenance are some of the themes that has been explored as well as environmental impact, individual measurement and billing and, of course, electrical security. Project meetings have included lessons learned from participators, visits to reference facilities, keynote speakers, consultants and suppliers and the meetings has been well frequented and appreciated among members.



The project is now wrapping up and for its finale, the management arranged a solar conference in October in Trollhättan. Over 90 persons attended and listened to a panel discussion about PV-volumes in electricity grids in national, regional and local perspectives and speakers in interesting parallel sessions.

During the evaluation of Sol i Väst, it is found that the project has achieved significant results. Participators have given the highest grade of well performance to the management, and to the relevance of the developed

tools and information folders. This training material is still available on the project's web page and free to use. During the period, 14 500 m² solar panels have been installed which give 2,6 GWh annually in the region of west of Sweden. Even though Sol i Väst is ending in this December 2019, the management is looking into a continuation and development of the project for a further

three years of period, now included with innovations and including a wider audience like enterprises.

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EKIAN – THE BIGGEST PV PLANT IN THE BASQUE COUNTRY – EVE [ES]



The biggest PV plant in the Basque Country will be fully operative by the end of 2019 in ARASUR industrial park, south of Araba Province. With more than 66.000 PV panels, 355 watts each, the plant is situated in an industrial use plot of 55 hectares. It will have a total installed power of 24 MW, which will double the current PV installed power in the region. The expected production will be 40.000 MWh per year, equivalent to the electric consumption of 15.000 families per year, and will mean a carbon reduction of around 14.600 tones.

The total investment of this project is 24 million EUR, shared according the ownership rate of the 22 owners. The project is in line with the objectives of the Energy Strategy of the Basque Country – 3E2030, that has established the objective of increasing the renewable energy share by 115% in 2030. In the case of PV it is expected it will be 4,4% of the total renewable energy installed capacity (now just 1,4%), reaching a total installed power of 293 MW by 2030.

The works started in April 2019, with a focus on the civil works and the implementation of the structure to host the PV panels. In July 2019, the installation of the first panels started and, in November 2019, the first trials have been carried out. By the end of 2019, the plant will be fully operative.

The project is an example of public-private partnership: on its first phase, it has been promoted by the Basque Energy Agency (EVE) and the engineering firm KREAN, creating a structure of 1 MW packages, and later a group of 20 private companies have joined buying these shares.

EKIAN, the biggest PV Plant in the Basque Country, is a public-private initiative of EVE and KREAN and has 22 investors. The investment is 24 million EUR and will produce electric energy equivalent to the annual consumption of 15.000 households.

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WIND-PUMPED-HYDRO POWER STATION OF EL HIERRO – ITC [ES]



Upper reservoir © ITC

El Hierro is the second smallest island in the Canary Islands. Its geographical peculiarities, which allow within a few kilometres to pass from the coast levels to 1,500 meters of its highest peak, give it a determining wind and hydraulic potential.

The Canarias Island, declared a Biosphere Reserve in 2000, is home to the Wind-Pumped-Hydro Power Station, Gorona del Viento system, whose objective is to supply the island with electrical energy from clean and renewable energy sources such as wind, using reverse pumped-hydro as energy storage for grid balancing the island electrical system.

The surplus wind energy which is not consumed by the Island's population is used to pump water from a lower reservoir at sea level, to a higher reservoir located at an altitude of 700 m. The potential energy stored in the water in the upper reservoir is used to produce electricity by means of a hydraulic jump at times when the wind power is inadequate.

The diesel-engine-powered power station that existed before the commissioning of the wind-pumped-hydro power station in 2014, still remains but only as a back-up, and comes into operation in exceptional circumstances when there is not sufficient wind or water stored to produce enough energy to meet demand.

Thanks to the Wind-Pumped Hydro Power Station, the Island is capable of supplying electricity with its own resources, reducing greenhouse gas emissions and the energy dependence on imported fossil fuels. The hydraulic infrastructures originally designed for energy storage, also guarantee access to water for human and agricultural consumption.

The current figures show a high renewable energy penetration of 56.5% in El Hierro; a totally isolated non-interconnected island. 2,300 hours at 100%; more than 20,000 tons per year of CO₂ emissions avoided; and reduction of 7,000 tons of diesel consumption per year. This summer the island of El Hierro has beaten another world record in the use of renewable energies in isolated non-interconnected areas—by exceeding 24 consecutive days of electrical supply without any consumption of fossil fuel.

The wind-pumped-hydro power station of El Hierro is a perfect example of public-private partnership and a multilevel governance approach, for promoting RES in European island regions. The company Gorona del Viento, responsible for installing and operating the power plant, was initially created with the participation of the Island Authority of El Hierro representing the islands resident population (60%); the Regional Canary Islands Government through its technological centre ITC (10%); and the local Utility ENDESA-ENEL (30%). It received public support from the central Spanish Government through a capital subvention and by the implementation of a suitable retribution scheme allowing for a reasonable return on investment. The European Commission also supported the first phase, granting ITC financing in the 5th Framework Programme (FP) for the project "Implementation of 100% RES Project for El Hierro Island – Canary Islands" (DG TREN; Contract N°: NNE5-2001-00950).



© ITC

Gorona del Viento El Hierro is a sustainable natural living-lab, whose goal is to achieve full energy self-sufficiency and lead the technological advancement of the renewable energy sector in isolated territories

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DEVELOPMENT OF LOCAL ENERGY CONCEPT FOR MUNICIPALITY OF CELJE, BASED ON EU PROJECT EXPERIENCE – KSENA [SI]

The European project IMEAS, co-financed by the European Regional Development Fund through the Interreg Alpine Space programme, researches how territories can be supported to successfully implement low carbon energy transition strategies. The IMEAS silo approach¹ develops integrated and multi-level energy models for the Alpine Space (AS) to overcome the barriers emerging from the disconnected silos at present².

In different EU countries, different backgrounds result in conflicting mechanisms, incentives and reporting tools, which hinder the smooth and consistent implementation of EU energy policy at national, regional and local levels in all EU countries. IMEAS integrates different government entities and business sectors to support synergies in the Alpine region between policies, actions, common methodologies, and roadmaps for objectives beyond 2020.

IMEAS has identified several silos, namely governance, energy, building sector, active civil society, forestry, etc., which impact the energy transition process. To facilitate this pursued low-carbon transition, IMEAS aims at studying each silo and highlighting where the critical issues, barriers, or opportunities exist, to ensure integration in the long run. Experiences from some areas help to fill gaps in others through a cooperative and transnational approach.

In the example of Slovenia, project partners KSENA and Municipality of Celje developed Local Energy Concept (LEK) for Celje for with the purpose of the IMEAS project so that they were able to point out major weaknesses and deficiencies in the energy planning process. Through the development of LEK – the most important strategic energy document on a local level in Slovenia – lack of data, capacity and alignment as well as poor information flow became apparent. The energy consumption data for Celje area had to be collected from several databases, while not all databases were publicly accessible and a lot of energy consumption data was missing, old or only approximate. More than 80 % of overall energy consumption in Celje is from private companies that the municipality does not have any influence over and are not obligated to make their energy management databases public or to implement any energy efficiency measures suggested by the local authorities.

There is also an open conflict of interest between the city

1 IMEAS silo approach: Breaking the silo mindset and connecting different silos – break barriers, connect different silos in a vertical, horizontal and transversal way, take the best of each and create an integrated approach towards energy planning.

2 Current silo approach: a strictly vertical mindset obstructing information and innovation flow.

municipality which would like to save money for energy and the energy supply companies that won't sell more energy in order to make more profit. The local energy concept as a strategic document is dependant on other relevant documents, acts and actions plans, but as it turns out these documents are not harmonized with each other. And last but not least, the mechanisms that oversee the actual implementation of measures suggested in local energy concepts are practically non-existent in Slovenia. The municipalities have to report the progress of implementation to a national body once a year, but if the goals are not being achieved, there are no sanctions. Consequently, there is no real commitment from the municipalities to implement suggested measures.

IMEAS strives to horizontally and vertically link the unconnected silos. For that purpose, IMEAS provides an IMEAS Web Platform with an available toolset for a multilayer, horizontal and transversal low carbon energy planning. This toolset, consisting of practical guidelines and tools, provides planners and decision-makers on all governance levels with support and guidance to link energy plans vertically to other governance levels, horizontally to other authorities and transversally to other sectors, such as real estate or mobility.



Celjski Dom © KSENA

For a holistic and successful carbon transition process, it is crucial that the energy policy of the EU level manifests at the local level, here in terms of local energy measures, and likewise that local energy policy initiatives have access to higher levels of institutions in a bottom-up kind of approach, which is possible only with a Multi-level Governance approach. Thus, the high permeability within the governance silo is expected to facilitate the low carbon energy transition processes. The IMEAS project is striving to tackle the obstacles that are present in energy planning in countries of the Alpine Region and focused on the creation of a more inclusive environmental framework that would support the multi-levelled approach.

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RESAP LAUNCH: THE RENEWABLE ENERGY SOURCES ADVISORY PLATFORM - MIEMA [MT]

The Malta Intelligent Energy Management Agency (MIEMA) has been very active in supporting local stakeholders in the implementation of energy-related initiatives since its setting up in 2007. As part of its local activities, MIEMA is currently in the process of launching the RESAP platform (Renewable Energy Sources Advisory Platform) with the aim of supporting public administrations, SMEs and private citizens to develop targeted plans for the introduction of renewable energy sources in their buildings/facilities. In particular, through the platform, MIEMA will be able to support its stakeholders in the drafting, development and implementation of energy efficiency action plans (e.g. SECAPs) as well as small tailored interventions for the integration of RES in a facility.

The platform is addressed to 2 main types of users:

- Public authorities and local public entities: the advisory service intends to overcome the lack of energy managers in Maltese public entities, offering MIEMA's technical expertise.
- SMEs and enterprises, both national and international: the platform is specially addressed to the island of Gozo, which lacks big enterprises that can take care of a complete retrofitting/refurbishment project and the lack of ESCOs which can assist in the financing of energy projects. Therefore the platform has a dedicated section which can be used to bring together SMEs and enterprises and promote the establishment of partnerships which can implement such projects.

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Large PV installation in at the Ministry for Gozo which is promoted as a best practice of the Enerselves Project (Interreg Europe Programme) © Diane Cassar, MIEMA

Other than the virtual advisory office and the SMEs section, the platform also includes sections dedicated to RES technologies suitable for the Maltese archipelago and available financing instruments (both national and European) for energy efficiency, RES installation and retrofitting/refurbishment of buildings. This information section also contains news on training and conferences on EE and financing instruments that are held in Malta.

Finally, the platform contains a networking space where the users can discuss and exchange opinions, ideas and experiences: a forum which is divided into thematic sections and moderated by the platform webmaster shall be available.

The RESAP tools shall be made available to all stakeholders whereby users can register for free. The platform is being implemented as part of the local action plan elaborated through the ENERSELVES project (co-financed by the Interreg Europe Programme – ERDF). The platform is currently under development and will be launched in January 2020.

PROMOTION OF BUILDINGS THAT SUPPLY, STORE, AND DISTRIBUTE ELECTRICITY TO THE ELECTRICAL GRID - ÖREBRO ENERGY AGENCY [SE]

Region Örebro County Energy Agency facilitates a network within the real estate market (fastighetsnätverket). Within this network, we promote energy and environmental good practices in building and maintenance of the real estate. One of the focus areas we have in the network is to spread information about how buildings can create solar electric energy, store it in batteries, and then supply the electrical grid with power when there are demand and high payout. The prediction is that the frequency in

the electrical grid will become more and more unstable with the addition of solar and wind power sources. In Sweden, real estate owners with a battery supply of 100 kW or more can balance the frequency in the electrical grid and get a higher payment compared to selling the electricity in a more traditional manner.

Information on the systems and technology benefits are shared through workshops and field trips within

the network. One highlighted example is Änglanda School in Örebro. This school has solar cells (PV) covering the roof, a battery central and a geothermal heat pump that stores and uses heat from beneath the football field. The batteries used are produced locally and were chosen based on having the smallest carbon footprint compared to other options. The school produces more electricity than is consumed and the payoff is shorter with all the systems working together compared to a setup with only PV and no batteries. The goal of promoting these systems is to create more resilient self-sufficient buildings, the use of more alternative energy sources, long-term positive economic results, and buildings that can help support the energy challenges of the future.



Drone photo of Änglandaskolan in Örebro, Sweden © Futurum Fastigheter

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SUSTAINABLE COMMUNITIES WALES – SEVERN WYE ENERGY AGENCY [UK]



From left to right: 1. Maker's Guild – Craft in the Bay; 2. Corwen Museum; 3. Llangollen Town Council 4. Welcome to our Woods Ltd © SWEA

Wales is a largely rural country in the United Kingdom, where it is difficult to make rural buildings energy efficient. Many communities are isolated and often do not have access to energy networks.

Sustainable Communities Wales (SCW) is an energy efficiency programme to encourage Welsh communities to make energy efficiency improvements to their communal buildings – community centres, churches, citizen-led enterprises, charities and social enterprises. Severn Wye is leading a consortium of energy efficiency specialists covering the whole country. This way, communities work with experts that understand their region, their local culture and the supply chains in the local economy – whether they are in a rural or urban area.

Each community is offered free expert support that consists of bills analysis, an energy survey of the community building and a report recommending the behaviours, replacements and retrofit options that will lead to the biggest improvements in energy savings. If they are interested in more complex retrofitting, such as installing on-site renewable energy generation or making big changes to their building – then SCW can offer free specialist support and feasibility studies. These feasibility studies have led to some clients receiving funding from their local authorities to install solar PV on their roofs.

Communities often find it difficult to take advantage of energy efficiency opportunities because it is difficult for groups of private individuals to raise the money required to make big changes. To address this, SCW's consortium includes a Community Finance company who offer participants an interest-free loan that takes their circumstances and income into account to make sure that the changes they make are affordable for the community. Even without these, a number of our clients are using the report and recommendations to apply for funding from other organisations – particularly where the improvements being made will save the communities money and help them get more use out of their communal buildings.

Sustainable Communities Wales will work with 150 communities across the country until March 2021, and aims to significantly influence the way communities think, act and relate to the energy they use. Severn Wye has been able to use funding from the National Lottery Community Fund Wales to help communities reduce the carbon footprint of their buildings.

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PROMOTING ECO-MOBILITY



ELECTRIC BUS E.CITY GOLD ON TESTS IN MADEIRA AND PORTO SANTO ISLANDS – AREAM [PT]

In December 2017, Madeira hosted an electric bus demonstration developed under the Civitas Destinations Project, co-financed by the Horizon 2020 Programme, with the coordination of AREAM and the partnership of three bus service operators and the Regional Government of Madeira. The test was undertaken with the e.City Gold, a 100% electric urban bus developed in Portugal by CaetanoBus.

The test aimed to evaluate the technical feasibility of the operation of electric buses on the island of Madeira and Porto Santo, and to support local actors in defining a strategy for the decarbonization of the bus service sector.

The demonstration showed that the electric bus is technically feasible, cost-effective and environmentally more favourable in relation to

Diesel and natural gas fuelled buses, and have suitable power and torque for the required demand and road slopes in Madeira.

In short, the electric bus saves 86% in energy costs (about 50 EUR/100km) and has 75% less CO₂ emissions (about 130 kg CO₂/100km) compared to Diesel buses.

Over a period of 20 years, it was found that the additional investment compared to a Diesel bus, is recovered in less than seven years. For more information, watch the video «e.City Gold electric bus experience in Madeira and Porto Santo - Civitas Destinations» on Youtube.

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REDI: DIGITAL MEETINGS FOR THE PUBLIC SECTOR IN SWEDEN ENERGIKONTOR NORRA SMALAND [SE]



© Johan Werner Avby - REDI project

REDI is a project run in co-operation between the Energy Agencies of Sweden focusing on meeting without travelling aiming for an energy-efficient transport system, with help from digitalization. The background to the Swedish national REDI project is the REMM project, led by The Swedish Transport Administration. For 7 years, it has successfully improved the utilization of digital meeting alternatives among government agencies in Sweden. Using a 10-step process, the participating agencies have been able to show tremendous results when it comes to climate impact from reduced travels. With

the positive results the idea was born to apply the same methodology to municipalities, counties and municipal owned companies – the REDI project.

At the core of the REDI methodology is the realization that a transition to digital meeting alternatives can never be a purely technological process. Countless are the examples where organizations have invested in costly conferencing installations that have been left virtually untouched. Or similarly, where efforts have been made to increase employee utilization of digital meeting alternatives, while management maintains an intense travel routine. What is needed is a shift in attitudes and behaviours within each organization, a shift in organizational cultures.

The REDI project process aims to support strategic implementation of digital meetings starting point and conditions, following the 10-step methodology, and it leans heavily on its five core approaches:

1. Regional teams - in which participating organizations team up with their regional energy agency as team leader. The team gathers all interested stakeholders and helps them with to start and improve their digital meetings processes. It also beneficial for the energy agency that improves their contact and relation with stakeholders and partners.

2. Networks - between participating organizations with similar interests/challenges. The themes and needs of the networks are decided by the participants. The networks serve a peer to peer learning and experience sharing purpose.

3. Trainings – Physical and online training opportunities for participating organizations, including regularly occurring “Bootcamps” where participants can practice the ins and outs of digital meetings (connecting/disconnecting, turning mics and cameras on and off, experiencing bandwidth fluctuations etc). These trainings will be adjusted as to fit differing levels of knowledge and experience.

4. Monitoring and Evaluation – REDI provides participants with best practice examples, contacts to relevant researchers and institutions as well as concrete methods to assess and evaluate digital meeting initiatives.

5. Advice – regarding software and hardware solutions, as well as bridging options to meet between different systems as well as on how to work with meeting and travel policies.

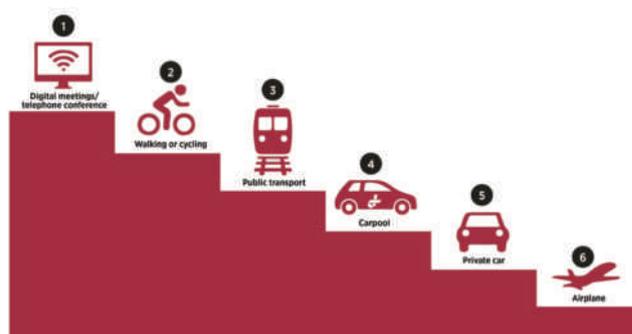
The aim is to reach 50 Swedish municipalities, county councils and municipal owned companies within the first two year, and to scale up from there.

Project duration: June 2018 – October 2020

Budget: 5,000,000 SEK

Funding: The Swedish Energy Agency

Status November 2019: 41 participants so far and more coming in, 4 regional teams, 6 regional energy agencies engaged, working together and with stakeholder's within their region. 10 held webinars and training sessions. One network started on how to measure and follow up digital meetings in organisations.



Visualisation of a meeting & travel policy from the project owner's travel policy Energy Agency of Northern Småland (part of Region Jönköping County Council) Illustration © Energikontor Norra Smaland

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PROMOTION OF E-MOBILITY IN LIGURIA REGION – IRE LIGURIA [IT]

In recent years, IRE Liguria has been working on promoting electric mobility in Italy's Liguria Region. The agency has been entrusted by the Region with the management and implementation of the National Plan for Electric Vehicle Charging Infrastructure ("PNIRE") in our territory through a number of actions and activities.

Initially, IRE developed the project proposal to access national funding for a first network of e-charging infrastructures in Liguria. The project was approved, brought over 230.000 € to the Region and led to the

Thanks to IRE's activity and know-how, Liguria Region is being equipped with a comprehensive network of e-charging infrastructures and a Plan for Electric Mobility is being developed. This is especially important as the penetration of e-mobility is still very low in the territory and needs to be encouraged.



installation of 22 new e-charging stations in five ligurian cities: the Region's capital, Genova, as well as the cities of Savona, Arenzano, Cairo Montenotte and Cogoleto. All the e-stations are currently up and running and are equipped with two outlets with the possibility to charge two vehicles simultaneously (12 of them are 2x22kW and the other 10 are 22kW+3,7kW double e-chargers).

In this context, IRE developed the technical project for the localization and installation of the infrastructures, drafted all tender documents, acted as Contracting Authority on behalf of the Region and was responsible for all communication activities. Regarding the activity of locating the e-charging stations, IRE took into consideration a broad number of aspects including: population served, mobility patterns, geographic position, availability to host the stations, technical feasibility, integration with existing e-stations, levels of pollution and traffic congestion, the existing local mobility plans and the potential synergy with the network of other points financed by the project. All of the installed e-stations were also located less than 200 m from an electric cabin.

More recently, a set of new activities have been launched to further promote e-mobility in Liguria, thanks to national funding for over 870.000 euro newly assigned to the Region for this aim. In this context, IRE is in charge of developing a comprehensive Plan for the promotion of Electric Mobility in Liguria. It is also responsible for

managing the allocation of resources to those public and private subjects willing to implement e-infrastructures in the Region: from Municipalities and other public entities to all kinds of private subjects such as shopping malls, petrol stations and apartment buildings. After a preliminary exploratory phase in which all the main stakeholders were contacted to better understand their interest, availability and needs, IRE has recently published the call for expressions of interest. The Agency is in charge of the technical evaluation and selection of projects; of the localization, purchase and installation of the e-charging points; and of all the communication activities.

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EDUCATION COMMUNICATION YOUTH AWARENESS

CYPRUS ENERGY AGENCY: EDUCATION AS A PILLAR FOR SUSTAINABILITY – CEA [CY]

The education of the general public in order to raise awareness, and the education of experts to develop their skills and eventually increase their efficiency have always been critical in addressing issues. The Cyprus Energy Agency is proud to participate in two European projects -the 'Bricks of Skills' as an associate partner, and 'Yenesis' as the lead partner-, that place education as a main pillar for sustainability.

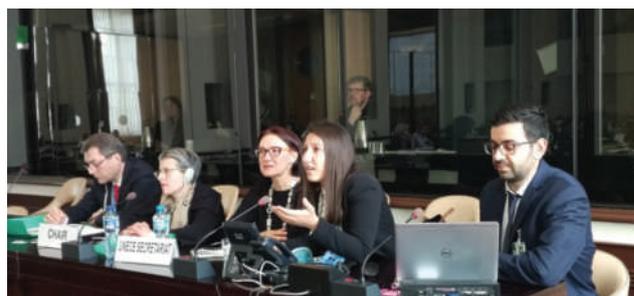
The 'Bricks of Skills', on one hand, is a partnership project, co-funded by the Erasmus+ program of the European Union, which aims at designing new learning pathways to revolutionize clean energy training in the construction sector. Soon, a 3-day "Train the Trainer" training will be held in France, following the European Credit system for Vocational Education and Training (ECVET) standard.



Picture from the 3rd partners' meeting of 'Bricks of Skills' project in Prague, Czech Republic (June, 2019) © CEA

The YENESIS, on the other hand, is a project funded by European Economic Area (EEA) and Norway Grants Fund for Youth Employment, that aims at creating green jobs to minimize unemployment in islands, and through

innovative training and educational programs, prepares young NEETs (Not in Education, Employment or Training) for these jobs. The YENESIS project application period was open until Sunday November 10th.



Picture from 'the Yenesis' presentation at the 14th meeting of the United Nations Economic Commission for Europe's Steering Committee on Education for Sustainable Development (May, 2019) © CEA

Both projects see the opportunities arising from the threat of climate change and educate specific people to address it. The 'Bricks of Skills' bases its training on the ECVET standard, which recognizes the skills and qualifications of EU construction professionals and supports their mobility across Europe to help optimize their background; while 'Yenesis' one comprises of educational courses on business innovation, energy efficiency, renewables, sustainable tourism, and mobility, a showcasing expedition on good practices in Norway, and similarly encourages an apprenticeship mobility scheme between the beneficiary countries.

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EYES: ENGAGING YOUTH IN SUSTAINABLE ENERGY PLANNING EC NETWORK [DK]



The EYES project involves 6 European local communities in Spain, Denmark, France, Poland, Italy, Bulgaria that all are committed to develop local strategies and action plans for engaging the youth target group in the local climate and energy planning processes (18 – 29 years old). The project is supported by the ERASMUS+ programme and runs from 2019 – 2021.

Each community will establish a Youth Intervention Team (YIT) that will develop a research to other young people to identify the key fears and barriers from the youth perspective on energy and climate. At the end of the YIT activities, they will produce Recommendations for policy makers on energy and climate planning, and on how to engage youth in these topics.

EYES aims at demonstrating that youth participation will lead to improved local climate and energy plans with perspectives and input from the youth target group. Furthermore, this can lead to improved Citizenship and service, as involvement in local planning allows young people to better understand their local government and community, to address community issues, and to develop habits of participation and good citizenship.

Sønderborg, Denmark

The Municipality of Sønderborg has from the beginning of the project established a Youth Climate Council to provide the YIT input. They have made a statement that in a sustainable community everybody should take care of each other and be engaged in the city development. Their particular wish to engage the youth and make

them realize that they themselves can influence how their community thinks about sustainability. The YIT was therefore represented at the local culture night in Sønderborg to inform the local community about the EYES project and recruit new YIT members. The YIT used a vision board to interact with the by passers, asking them for ideas on how the youth climate council can help improve a greener Sønderborg. The response to the project was well received and many people, young as well as old, were eager to share their ideas. The EYES project is in Denmark implemented by EC Network and EUC SYD (vocational educational centre) in cooperation with Project Zero.

Granollers, Spain



As within the other communities, the Municipality of Granollers has established an Advisory Board consisting of local stakeholders which are highly committed to collaborate with the YIT and training the youth in the community to face the challenges in relation to climate mitigation and the necessary energy transition empowering them to engage in the local planning process. A YIT with committed young people has been established and the first meetings have been held to plan the youth research. The EYES project is in Spain implemented by the Municipality of Granollers and ECO Serveis (overall coordinator of the EYES project).

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CYCLE OF SESSIONS FOCUSED ON HOW CITIZENS WILL PARTICIPATE IN THE NEW ENERGY MODEL OF CATALONIA – ICAEN [ES]

The Catalan Institute for Energy (ICAEN), in collaboration with Palau Macaya of “La Caixa”, has carried out a cycle of sessions to think about the energy model of Catalonia with the title: “You have the energy, you have the power. From passive citizens to involved prosumers”.

The cycle began in January and ended after 5 months of intense work, with 71 proposals from the participants. There were five sessions aimed at addressing the main challenges and needs of society in relation to energy and giving voice to citizens so that they participate directly in the transition to the new energy model of Catalonia. Specifically, there were two open sessions (the inaugural and the final) and three reduced-format sessions, in which the work has focused, in a dynamic and participative way, on a specific topic in each one: PV self-consumption, electric mobility and digitization of energy.

The cycle has facilitated the work and debate of people with diverse levels of knowledge and expertise in the field of energy and with different social profiles on specific aspects and challenges of the Catalan energy model. This resulted in 71 proposals whose possibility for implementation was evaluated by ICAEN. Of these 71 contributions, 37 were in the field of self-consumption, 17 in the field of electric vehicles, and 17 more connected to digitization. At the moment, ICAEN has accepted 47 of these proposals to carry out as quickly as possible, it is studying 13 of them, and it has rejected 11 for their impossibility to be applied technically.

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Participants in one of the reduced-format working sessions. © ICAEN

This work dynamic, as well as opening a dialogue channel between the administration and citizenship and deepening in specific aspects of the energy transition, has also allowed ICAEN to capture the main interests and detect the great concerns of the participants in relation with energy. In this sense, the first conclusions drawn from this process are the need to open new ways for citizens to make their proposals and give their opinions related with energy topics; the need of simplifying the procedures related to the energy transition; and the opportunity that the new energy model supposes for changing the relationship between citizens and energy and not just the application of new technologies.

Citizen participation is one of the main features of energy transition towards the efficient and renewable model advocated by the Government of Catalonia. In this sense, this cycle of sessions is a first instrument that ICAEN enables for channelling citizen participation.

**THANKS TO ALL OUR MEMBERS
FOR THEIR CONTRIBUTION!**



More information? Feel free to contact the concerned member directly by using the contact information provided in the article or contact us at fedarene@fedarene.org



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