Policy Learning Platform
Low-carbon economy

Event report

Thematic workshop on energy efficiency in buildings

28 June 2018

Educatorio il Fuligno, Florence

Summary

The Interreg Europe Policy Learning Platform organised a thematic workshop on the topic of energy efficiency in buildings, which was held in Florence on 28 June 2018, bringing together 39 individuals, including 28 representatives of fourteen Interreg Europe projects. Other participants came from the European Commission (EASME and the Joint Research Centre), and from the Policy Learning Platform and Joint Secretariat of Interreg Europe.

The workshop was divided into three main sessions:

1. **Learning from the experts**

This session involved speakers from the European Commission and the Policy Learning Platform, presenting background information on energy efficiency policy, the role of the Policy Learning Platform, and an overview of the Interreg Europe projects working on energy efficiency.

2. **Learning from the projects**

The second session focused on outcomes from the projects, including presentation of four good practices and three reports and methodologies from the projects which could be transferred and used by other regions.

3. **Learning from each other**

The final session of the day involved group discussions on how projects can co-operate. From the exchanges and debates, it became clear that three areas presented particular challenges to the regions:

- **Measuring and monitoring**: Data about energy consumption of buildings, especially multi-story apartment blocks and historic ones, is widely missing.

- **Integrated strategy and planning**: Large impact is only achieved when energy efficiency is not tackled in a single silo within a territorial authority.

- **Financing**: Large-scale implementation of energy efficiency measures for buildings lie ahead; grants will never be enough to finance them. Novel instruments must be set up urgently that combine different funding sources in innovative setups, for example, involving guarantees.

A number of follow-up actions have identified and are presented in the concluding part of this document.

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Introduction

The Interreg Europe Policy Learning Platform organised a thematic workshop on the topic of energy efficiency in buildings, which was held in Florence on 28 June 2018. The aim or the workshop was to pave the way for synergies between the Interreg Europe projects working on the theme. Consequently, the participating project representatives were invited to discuss and present their achievements, learn more about the European framework, see how projects could support each other for mutual regional benefit and understand how the Interreg Europe Policy Learning Platform could help them.

Participation

The workshop targeted participants of Interreg Europe projects working in energy efficiency in buildings. The event invitation was sent to the lead partners of these projects, who were asked to identify the most relevant partners from their consortium to participate. In total, the workshop attracted 39 participants, including representatives from all fourteen of the invited energy efficiency projects. Only one registered participant did not turn up on the day. Three non-registered project participants arrived on the day and were allowed to participate.

Altogether, 28 participants from Interreg Europe projects came together for the thematic exchange, supplemented by external speakers from the European Commission, EASME and the Joint Research Centre as well as the support staff of the Policy Learning Platform and the Joint Secretariat of Interreg Europe.

The following projects were represented.

BUILD2LC Interreg Europe	**Boosting low-carbon innovative building rehabilitation in European regions** www.interregeurope.eu/build2lc
FINERPOL Interreg Europe	**Financial instruments for energy renovation policies** www.interregeurope.eu/finerpol
LOCARBO Interreg Europe	**Novel roles of regional and local authorities in supporting energy consumers' behaviour change towards a low carbon economy** www.interregeurope.eu/locarbo
REBUS Interreg Europe	**Renovation for energy efficient buildings** www.interregeurope.eu/rebus
SET-UP Interreg Europe	**Smart energy transition to upgrade energy performance** www.interregeurope.eu/set-up
Social Green Interreg Europe	**Regional policies towards greening the social housing sector** www.interregeurope.eu/socialgreen

ZEROCO2 Interreg Europe	**Promotion of near zero CO2 emission buildings due to energy use** www.interregeurope.eu/zeroco2
CLEAN Interreg Europe	**Technologies and open innovation for low-carbon regions** www.interregeurope.eu/clean
MOLOC Interreg Europe	**Low carbon urban morphologies** www.interregeurope.eu/moloc
EMPOWER Interreg Europe	**More carbon reduction by dynamically monitoring energy efficiency** www.interregeurope.eu/empower
SUPPORT Interreg Europe	**Support local governments in low carbon strategies** www.interregeurope.eu/support
VIOLET Interreg Europe	**Preserve traditional buildings through energy reduction** www.interregeurope.eu/violet

The twenty-eight project participants came from fifteen different member states, and represented a good mixture of public agencies, public authorities and private organisations.

Country of Event Participants
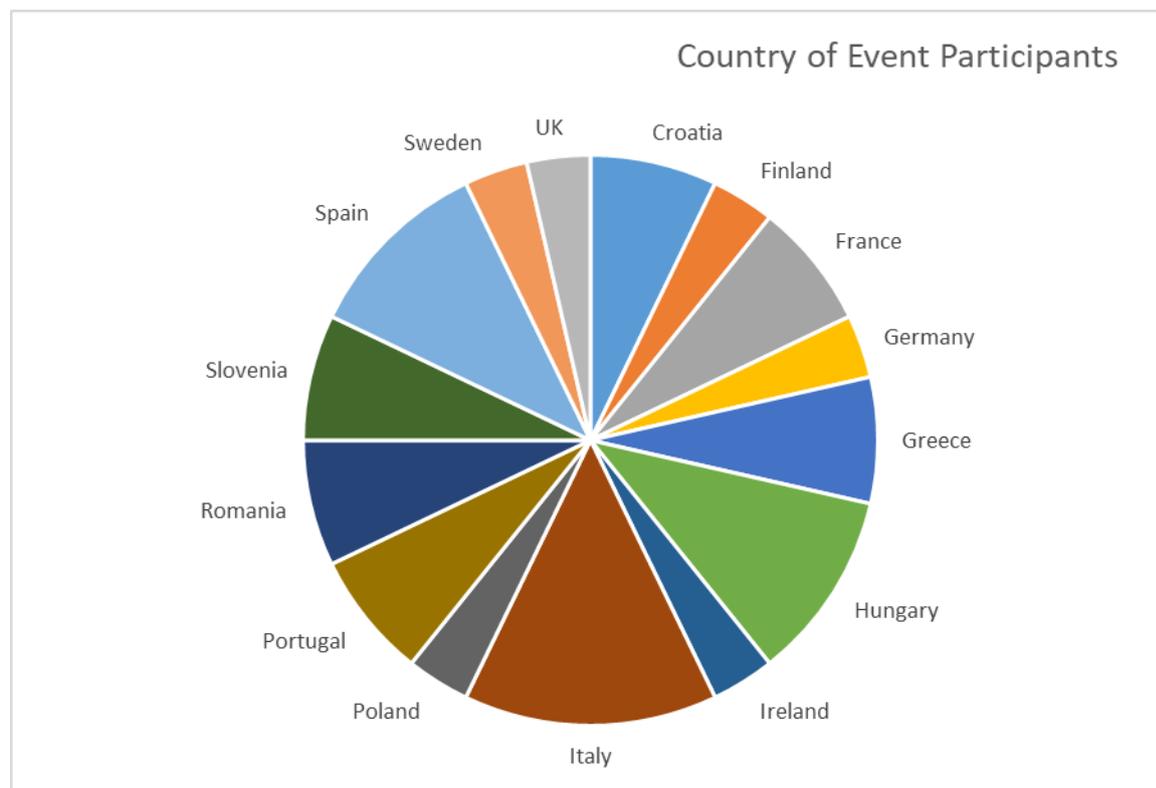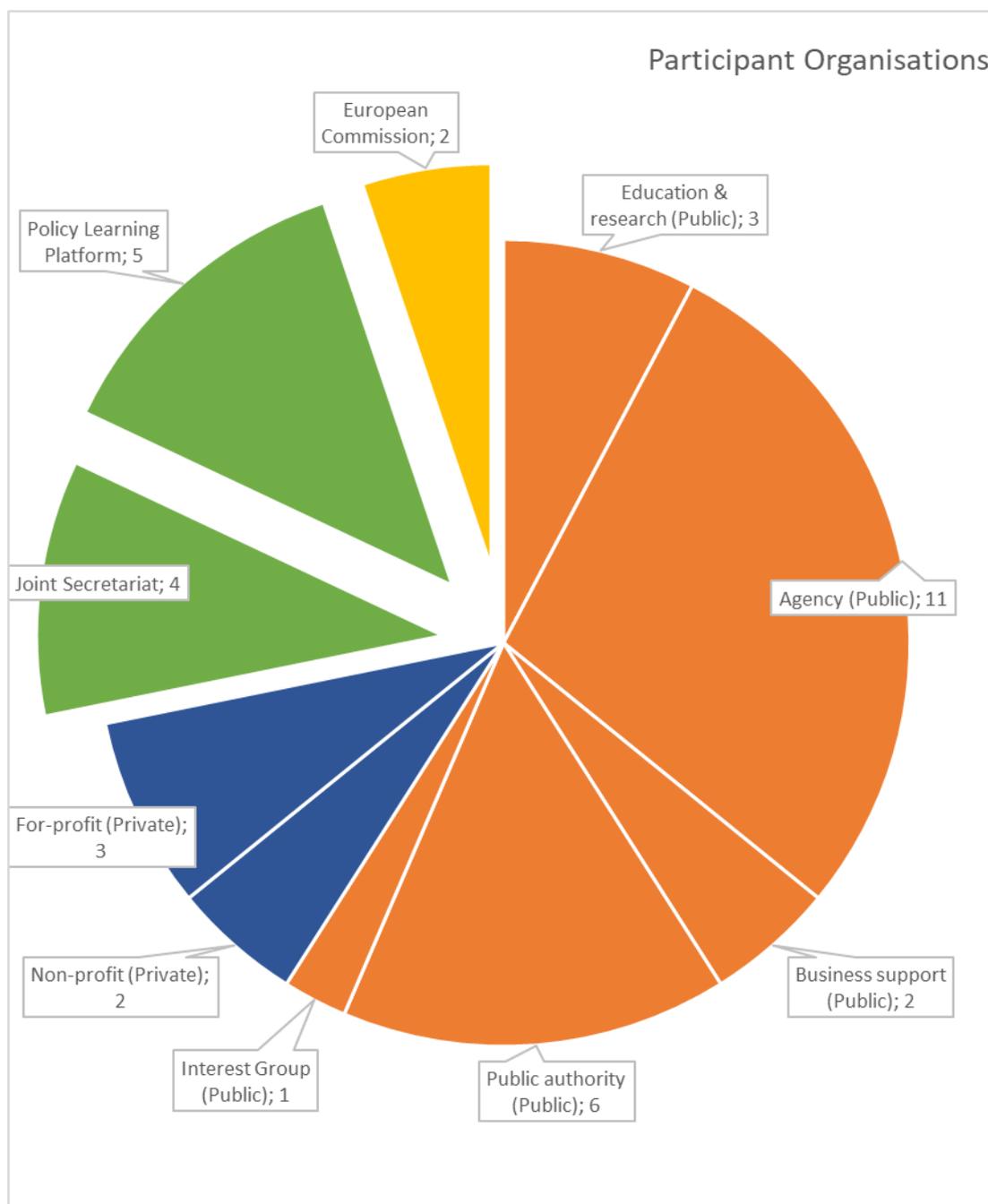
Sessions

The workshop was divided into three main sessions:

4. **Learning from the experts** – Speakers from the European Commission and the Policy Learning Platform;
5. **Learning from the projects** – Good Practice exchange and project presentations;
6. **Learning from each other** – Group discussions and feedback.

The event agenda is included in Annex I, and all presentations from the day are available via the Policy Learning Platform.

Learning from the experts

The first session of the workshop was focused on introducing the European policy framework and the Interreg Europe Policy Learning Platform.

Gordon Sutherland from the European Commission's Executive Agency for Small and Medium Enterprises (EASME) presented the [revision of the Energy Performance of Buildings Directive (EPBD)](), outlining the implications of the changes for regional authorities. The key features include:

- EU Member States must establish long-term renovation strategies to decarbonise their building stocks by 2050, aiming to reduce carbon emissions by 80-95% compared to 1990 levels;
- Renovation strategies must include a financial component, including measures for aggregating projects, reducing perceived risk for energy efficiency renovation, using public funds to leverage private investment, and providing advisory tools;
- Smart technologies will be promoted, including requirements on the installation of building control systems and devices that regulate temperature;
- E-mobility will be supported by introducing charging infrastructure requirements for car parks with over ten spaces. This will apply for both new builds and non-residential buildings under major refurbishment. Other minimum infrastructure requirements are introduced for smaller buildings;
- A European scheme for rating the smart readiness of buildings will be created;
- States will have to express their national energy performance requirements in ways that allows cross-national comparisons;
- Health and well-being of building users will be promoted, for instance through an increased consideration of air quality and ventilation.

He also presented the support available from the European Union.

Smart Finance for Smart Buildings Initiative	The [SFSB initiative]() aims to unlock investments and private financing through aggregation of projects, de-risking and effective use of public funding.
European Local Energy Assistance (ELENA)	[ELENA]() provides grants for technical assistance to develop large-scale projects, covering energy efficiency, distributed renewable energy and urban transport projects.
De-risking Energy Platform (DEEP)	[DEEP]() offers a database that aims to de-risk energy efficiency investments by demonstrating successful projects in building and industry.
Energy Efficiency Financial Institutions Group (EEFFIG) Underwriting toolkit	[EEFFIG]() offer a guide which aims to assist financial institutions to scale up their deployment of capital into energy efficiency.

It is clear that the revision of the Buildings Directive will have a very wide impact. In particular, the obligation to introduce e-vehicle charging stations in buildings, will formally link energy and mobility in view of a low-carbon lifestyle.

The [Smart Specialisation Platform on Energy](#) was presented by Fernando Merida-Martin of the Joint Research Centre. The platform can support regions in implementing their Smart Specialisation Strategies, if they have energy-related priorities, and assist countries to uptake cohesion funds for energy. The platform can collaborate with regions to analyse energy priorities and policies, and identify good practices for regional collaboration to increase innovation in clean and efficient energy.

While the S3 platform looks at the topic of energy through the lens of innovation, the approach of most Interreg Europe projects is more implementation-oriented, but there are clear synergies that could be harnessed together.

Thorsten Kohlisch of the [Interreg Europe Policy Learning Platform](#) presented the services that can be offered to partners of Interreg Europe projects, and to regions across Europe currently not involved in interregional cooperation projects. Beyond the possibility to benefit from bespoke advice, policy briefs, good practices and networking opportunities, project partners are encouraged to contact the Policy Learning Platform team to inform them about their specific learning needs or their readiness to promote and share key achievements of their work. In order to benefit fully from the online platform, interested project partners and stakeholders should also join the community of Interreg Europe, as the submission of good practices, asking for expert advice and benefitting from networking opportunities are only possible for registered users.

The specific activities of the Policy Learning Platform on low-carbon economy were presented by Simon Hunkin, who also presented the projects present and highlighted some key trends and themes in their work:

- **Finance** – Almost all of the projects have identified financing as a key barrier. Although significant resources are available via regional development funds, making sustainable use of them, at a large-enough scale to have a real impact, is a challenge. Projects are aiming to move away from simple grant funding, which is often used when investors and banks are sceptical of investing, but is inefficient and unsustainable once concepts have been proven. Projects are instead exploring debt funding, repayable grants, and more novel instruments including revolving funds, ESCOs. Whilst grants have typically been administered by local authorities, regions are now looking to involve financial intermediaries with more experience of managing funds.
- **Governance** – Most regions by now have at least some basic strategy and roadmap for low-carbon development, but are beginning to encounter challenges in really implementing the actions. Many projects are focusing on developing more long-term strategies and targets, building flexibility into the plans, and recognising institutional limitations and challenges. Projects are aiming to support greater co-operation amongst government departments, strengthen co-operation with stakeholders, and better monitor energy performance and respond when off-track;
- **Energy Management** – In line with the governance challenges, energy management is a theme that emerges repeatedly, with growing awareness of the need for monitoring and performance data. Whilst basic tools are available for monitoring and measuring the performance of individual homes, and large-scale systems are available for industrial plants, few options exist for mid-sized buildings, such as publicly-owned multi-tenancy housing as

well as for historical buildings. Numerous projects are looking at systems which could be applied to such buildings, and also to individual businesses;

- **Behavioural change** – Getting individuals to change their behaviour is one of the most effective, but challenging, changes that can be made for improving efficiency. Whilst energy efficient technologies and materials are available, targeting the users of buildings is essential for getting the greatest impact. Projects are considering how to engage with tenants, especially of public housing, and users of public buildings including schools, but in future greater effort will be needed on homeowners, private renters and landlords, as well as businesses.

Learning from the projects

The next section of the day considered how to overcome the key challenges that were identified in the analysis, with presentations of good practices and promising achievements from the projects that had been selected by the thematic experts due to their particular relevance for interregional learning and experience exchange.

Good Practices

This session saw five minute pitches from owners of good practices, followed by five minute interviews from the moderator and five minute questions from the floor.

Before the pitches, Katharina Krell demonstrated the current search functions of the Good Practice Database of the Interreg Europe portal that allows good practices to be searched by thematic area, by country and by region, as well as by free keywords. In the future, more search criteria will be added to the database. In order to better understand how regional policy makers would want to search for solutions, a co-creation exercise was launched during the presentations of the good practices. Participants were given post-its and invited to write down classifiers that came to their mind in the areas of 'thematic tags', 'policy instruments', 'target group', and to post them on a flip-chart at the end of the session for later analysis by the thematic experts.

The **Sustainable Municipalities** good practice was presented by Mervi Pienimäki from Thermopolis Ltd, a partner of the ZEROCO2 project. The practice demonstrated how numerous small municipalities could pool resources to improve delivery of their energy reduction strategies, helping to increase staff capacity, provide training and educational materials, and jointly monitor their energy performance in dedicated, cross-municipality energy efficiency teams. This good practice presents mainly a governance innovation allowing for cross-departmental, cross-municipality strategy development, implementation and monitoring.

The **KredEx scheme in Tallinn** was presented by Ryan Weber from Nordregio, partner of the Social Green project. KredEx offers loans, guarantees and grants for improving energy efficiency in buildings, and this was demonstrated with a case study on Sõpruse 202, a building in Tallinn, Estonia. This good practice is a financial instrument that combines money from different sources and different reimbursement conditions.

Ianire Renobales from ERNACT (CLEAN project) presented the implementation of an **ISO 50001 Energy Management System** in Donegal, Ireland. The municipality developed an energy management system to reduce energy consumption, and achieved the ISO 50001 energy management accreditation, managing a 5-10% reduction in energy consumption just from

behavioural change and awareness raising activities. Ianire confirmed it is crucial to be able to measure energy use before and after to have a meaningful decisions-making base.

The last good practice shown was the Virtual Power Plant Programme, presented Zoltan Oletics from the Hungarian Innovation and Efficiency Nonprofit Ltd. (LOCARBO). The virtual power plant shows energy savings as the output of a power plant, highlighting the role of energy efficiency the energy system. Projects monitored under the scheme have saved enough energy to offset a 100MW power plant. This practice is self-financing though procedural fees paid by companies participating in the scheme. It presents a low-hanging fruit with high replication potential.

Promising Outcomes

The afternoon session gave a number of projects the chance to present their key outcomes and most promising achievements. The aim was to highlight reports and methodologies which would be of immediate interest for other regions.

The FINERPOL project's ex-ante assessment for financial instruments was presented by Javier Ordóñez Muñoz from the Extremadura Energy Agency. The European Commission emphasised in the 2014-2020 policy framework for the European Structural and Investment Funds (ESIFs), that there should be greater emphasis on financial instruments, with ex-ante assessment as a condition. FINERPOL's assessments will mean that the regions in the project will be able to create financial instruments using ESIFs. The methodology can be used by other regions interested in performing ex-ante assessments to create financial instruments. Javier warned, however, that it takes a lot of time to go through the assessment and that regions should start early in view of the next Programming Period, but confirmed the high added value of the exercise to ensure the proper design of new financial instruments.

Ryan Weber (Nordregio) presented the Social Green approach to investing in affordable housing, highlighting key challenges and how the project has sought to overcome them. Ryan highlighted that very often the financing systems are very inflexible, and that local authorities often do not have the capacity to successfully apply for funding, especially if application processes are overly stringent. Building on the experience gained, Social Green recommends establishing regional operational programmes with European funds specifically for retrofitting social housing, providing guidance for applications, fitting renovations within broader regional development strategies.

The REBUS Energy Renovation Path was presented by Sergio Gatteschi from the Florentine Energy Agency. The path collects experiences from good practices and then provides guidelines on planning, implementing and monitoring renovations in public buildings, as well as looking at capacity building to build skills on energy related issues. The final version will be available by the end of 2018 for any regional municipality considering public building renovations. Sergio offered interested regions support in their access to the guidelines, which was positively received by the audience.

Learning from each other

The final session of the day involved splitting the participants into three parallel discussion groups to discuss complementarities amongst their projects, finding where they could work together and where and how the Policy Learning Platform could support them. Each group had a moderator and appointed a rapporteur to present back to the plenary.

One	Two	Three
Thorsten Kohlisch (PLP)	Laura Carniel (PLP)	Katharina Krell (PLP)
Verena Priem (IE)	Océane Elmajdoub (IE)	Charo Camacho (IE)
Andreea Rogozea (Social Green)	Gabriela-RamonaNastase (Social Green)	Ryan Weber (Social Green)
Balazs Kiss (SET UP)	Helene Morin (SET UP)	Sara Robles (SET UP)
Nikola Petric (SUPPORT)	Dalibor Jovanovic (SUPPORT)	Javier Ordóñez (FINERPOL)
Aurelien Parsy (MOLOC)	Ianire Renobales (CLEAN)	Bartosz Dubinski (EMPOWER)
Zoltan Oletics (LOCARBO)	Sergio Gatteschi (REBUS)	Carla Pires (LOCARBO)
Tea Potocnik (ZEROCO2)	Zoltan Baros (SET-UP)	Mervi Pienimäki (ZEROCO2)
Chris Ashe (VIOLET)	Ioannis Vourdoubas (ZEROCO2)	Sara Banchi (REBUS)
Carlos Serra (BUILD2LC)	Crtomir Kurnik (BUILD2LC)	Georgios Angelakis (ZEROCO2)
Miriam Siciliano (REBUS)	Célia Correia (LOCARBO)	

Group One

The projects noted that there is often a lack of capacity building in regions, which has an impact on the distribution of development funds. Whilst some regions are able to distribute their funds to energy efficiency projects, others find that they cannot do so. This is influenced not only by the capacity of staff to administer funds, but also linked to policy instrument design, particularly funding and project selection criteria.

Projects noted that they all share the challenge of raising awareness amongst the public on the actions being taken by regional authorities. The REBUS 'Big Switch-Off' project in Durham County Council was recognised as being particularly interesting for the challenge of awareness raising.

Whilst projects run by public authorities are usually targeted at publicly-owned buildings, the LOCARBO project recognised that there are large energy savings potentials that need to be stimulated outside of this sector (especially amongst home owners).

In a similar manner, it was noted that projects do not consider availability of technological solutions to be a major challenge, compared to applying these technologies effectively.

The projects noted that they can work together to share their capacity building practices to help to overcome the challenges related to fund absorption. They also suggested creating a discussion group amongst themselves to share ideas on increasing citizen awareness. The Policy Learning Platform could play a role in project co-operation by creating a small group of projects that can exchange further on the policy task of awareness raising, for example, through workshops, a webinar, an online group or production of a policy brief with the interested projects. The participants noted that they would particularly appreciate analysis and categorisation of good practices on awareness raising, including possible match-making exercises to highlight good practices to relevant public authorities.

Group Two

Participants were particularly interested in the creation of revolving funds, as carried out in the FINERPOL project. Regions have a strong interest in supporting a switch from public to private funding for energy efficiency investments. As with Group One, there was particular interest in projects and practices related to capacity building, as well as energy monitoring and reporting, for seeing the impact of energy efficiency investments. Participants were interested in what projects were doing in relation to ESCOs and wanted to see better description of such companies. Finally, there was also interest in the activities of projects related to co-ordination of different governance levels.

The group noted that projects can share their experiences on specific topics during joint project events, and that links could also be made with other programmes and with projects outside of

Interreg Europe. The group discussed the possibility to form common positions and messages for external communications, thinking about how to run effective joint dissemination and communication efforts. This would ensure efficient use of resources and increase the impact of project awareness raising activities. The group considered how to jointly use tools such as social media, events, project meetings and study visits.

The Policy Leaning Platform could support the projects by matchmaking good practices, actively highlighting good practices identified within one project to participants of other projects. There was also interest in helping to support activities for involving local politicians, for example, through high-level/high-visibility policy discussions and debates, to help secure political buy-in to project achievements. Finally, the group also supported further development of the tailored expert support provided by the Policy Learning Platform.

Group Three

The third group discussed financing schemes and were particularly interested in the activities of the Social Green and FINERPOL projects. There was interest also in how CLEAN and MOLOC are monitoring actions, and how LOCARBO is supporting capacity building to make energy more attractive. The projects would support future joint events, such as between Social Green and FINERPOL, and intend to begin to invite each other to project meetings.

The group supports the organisation of a future Policy Learning Platform event on financing schemes, with a particular focus on training partners and Managing Authorities on the topic. A new service was also proposed, whereby the Policy Learning Platform would find new good practices from outside of the projects when requested by projects, either through desk research, or through an open call, promoted to regions across Europe.

Conclusions

From the exchanges and debates, it became clear that three areas presented particular challenges to the regions:

- **Measuring and monitoring**: Data about energy consumption of buildings, especially multi-story apartment blocks and historic ones, is widely missing. Yet, without the ability to see the current energy use data with the help of suitable indicators and measurement tools, it is futile to make energy savings policies and investments. Measuring comes before and after any efficiency measure.
- **Integrated strategy and planning**: Large impact is only achieved when energy efficiency is not tackled in a single silo within a territorial authority. While strategic integrated territorial planning is more complicated and requires more political commitment, it can have a truly transformative impact and is therefore the way to go for a real step change. SEAPS and SUMPS could also be linked in the process, since energy and transport are two sides of the same coin.
- **Financing**: Large-scale implementation of energy efficiency measures for buildings lie ahead; grants will never be enough to finance them. Novel instruments must be set up urgently that combine different funding sources in innovative setups, for example, involving guarantees. Without appropriate financing instruments, the energy efficiency revolution will not happen.

These three areas should be included in the next Programming Period for the Structural Funds, and therefore it is important for Managing Authorities to take action now to ensure the opportunities for beyond 2020 are not missed.

A number of follow-up actions have been identified as a result of the event:

- With an overwhelming majority of participants voicing interest in financial instruments for the next Operational Programme this is clearly a topic to look into further, and the PLP together with the JS will analyse how to help regions with this complex but important issue;
- The Thematic Experts have previously suggested a future policy brief on the topic of energy efficiency financing. Following discussions at the event, we will ensure that this also covers private buildings, including private housing, and not just public buildings;
- Participants highlighted that they are facing large challenges in awareness raising, and that they would appreciate a policy brief on the topic, highlighting good practices on how to promote energy efficiency and maximise the impact of public funding and interventions. The PLP team will discuss with the JS to find a way forward, considering that the topic may also be suitable for future events or discussions;
- The PLP team will discuss with the JS the possibility to establish discussion groups of projects on specific aspects of energy efficiency policies, who will be free to talk amongst themselves without PLP involvement, but could then be requested to feed their conclusions into PLP activities, such as workshops or webinars;
- The PLP team will consider how feedback from the day can help to improve PLP services such as the good practice database (practice matchmaking and external good practice identification) and expert helpdesk, both of which were frequently discussed. A [lunchtime briefing](#) will be organised at the Committee of the Regions in Brussels on 13 September focused on promoting the good practice database. All members of the community are invited to attend or follow online via the livestream.

- The TO4 experts will analyse the classifiers for the good practices collected during the co-creation session and propose the most popular classifiers to the whole PLP team for consideration in the upgrade of the good practice database.

Contacts

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Annex I – Agenda

Registration and welcome coffee is open from 8:45	
9h15	**Welcome & Introduction** Introduction from the Thematic Experts, and objectives of the day *Katharina Krell & Simon Hunkin, Interreg Europe Policy Learning Platform Thematic Experts – Low-carbon economy*

9h30	**Understanding the European Framework**
	
	- The review of the Energy Performance of Buildings Directive
	
	  Gordon Sutherland, European Commission, EASME
	
	- Smart Specialisation Platform on Energy
	
	  Fernando Merida-Martin - Joint Research Centre

10h30	**What can the Policy Learning Platform offer?** *Thorsten Kohlisch, Interreg Europe Policy Learning Platform*
10h40	**What's happening in Interreg Europe?** An analysis of the projects funded by the Interreg Europe programme, presentation of European support, and policy brief on energy efficiency governance. *Simon Hunkin, PLP Thematic Expert – Low-carbon economy*
11h00	**Coffee break**

11h30	**Good Practices**
	
	Each presenter has 5 minutes to present their GP, then the thematic expert and the audience interview the presenter for 10 minutes.
	
	- Sustainable Municipalities
	
	  Mervi Pienimäki, Thermopolis Ltd (ZEROCO2)
	
	- KredEx scheme in Tallinn
	
	  Ryan Weber, Nordregio (Social Green)
	
	- ISO 50001 Energy Management System Implementation
	
	  Ianire Renobales, ERNACT (CLEAN)
	
	- Virtual Power Plant Programme
	
	  Zoltan Oletics, Hungarian Innovation and Efficiency Nonprofit Ltd. (LOCARBO)

12h30	**Networking Lunch**

13h30	**Promising project outcomes**
	
	Three projects will present reports and methodologies of benefit to other regions
	
	    - FINERPOL Ex-ante assessment for financial instruments
	           Javier Ordóñez Muñoz, Extremadura Energy Agency
	
	    - Self-assessment on Greening Social Housing
	           Ryan Weber, Nordregio
	
	    - REBUS Energy Renovation Path
	           Sergio Gatteschi, Florentine Energy Agency

14h30	**Coffee Break**
14h45	**Group Discussions: Getting *even more* from Interreg Europe** *Three groups; participants will present their projects (aims, achievements, outputs), establish co-operation amongst projects, and discuss how the Interreg Europe Policy Learning Platform can assist them.* *Each group will assign a rapporteur to report back to the plenary.*
16h10	**Reporting Back** *Report back on thematic groups (Rapporteurs)*
16h25	**Concluding Remarks & End** *Thematic Experts to outline next steps, from the report to plenary*
16h30	**End of Workshop**