Co-funded by the Intelligent Energy Europe Programme of the European Union

ENSPOL Energy Saving Policies

Contract N°: IEE/13/824/SI2.675067

Energy Saving Policies and Energy Efficiency Obligation Scheme

D6.1: EU observatories on Article 7 of the Energy Efficiency Directive

Project Coordinator: Joint Implementation Network - JIN

Task 6.1 Leader Organisation: Austrian Energy Agency

August 2016

List of Abbreviations

CA EED	Concerted Action for the Energy Efficiency Directive
GWhc	Gigawatt-hours cumac*[1]
EED	Energy Efficiency Directive
EEO	Energy Efficiency Obligation
EO	European Observatory
ESCO	Energy Service Company
IEE	Intelligent Energy Europe
M&V	Monitoring & Verification
MS	Member State
NTC	National Training Course
TWhc	Terawatt-hours cumac
Whc	Watt-hours cumac
WhC	White Certificate

[1] *Cumac is used in France. It refers to cumulated and discounted (4% annual discount rate) saved final energy during time life equipment or action benefit.

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1 Executive Summary

The complexity and variety of EEO schemes suggested the need to create a European Observatory (EO) to facilitate the dialogue with policy makers and stakeholders in order to ensure an effective exchange of ideas and experiences for the duration of the project and beyond. For this reason an European Observatory has been initiated that

- closely coordinates the effort to set a common framework to understand key concepts that affect the characterization and shaping of policy instruments and at the same time prevents the development of different interpretations of these concepts;
- supports Member States (MS) in tailoring energy policy schemes, while considering their respective national context; and
- represents an additional forum to the existing ones (e.g. CA EED) where MS can informally exchange knowledge and opinions about issues regarding the transposition of Article 7.

This report compiles short summaries of all three EU-observatory meetings held during the duration of the project ENSPOL (Energy Saving Policies and Energy Efficiency Obligation Schemes) and provides information about the main objectives of each meeting, the presentations held and the main discussion points and activities conducted. Detailed information about the EU-observatory meetings listed in this report is available for download from enspol.eu.

2 General Aspects ENSPOL EU OBSERVATORIES

2.1 EU Observatory Workshops

During the ENSPOL project, three official meetings of the EO with accompanying actions and on-going dialogue maintained outside of the meetings via the web-based stakeholder platform, the webinars or cross-country meetings have been organised. Every meeting was focused on a particular topic within the EEO framework, preceded by national surveys aimed at collecting data, issues and questions in order to target the discussion and make it practical and useful. Those EU-observatories should be carried on after the project ends in August 2016. A strategic plan has been developed to ensure the survival and management of the EU observatory meetings beyond the end of the project, which can be found in the report D6.4 "Strategic plan for the survival and management of the National Observatories and the EU Observatory beyond ENSPOL" which can be downloaded from enspol.eu.

2.2 Objectives of the EU Observatory Workshops

The EO organised under ENSPOL provided a public discussion forum where stakeholders had the possibility to exchange knowledge and opinions about issues regarding the transposition of EED Article 7, i.e. the implementation of either EEOs or alternative measures or the barriers Member States encounter when it comes to designing the policy mix that will enable each country to meet the targets set by the EED. The EU-Observatory acted as a platform to disseminate important results from the ENSPOL project itself. Three official meetings were held during project lifetime of ENSPOL:

- 1st EU-observatory, June 2015 (Brussels): side event of the EU Sustainable Energy Week (EUSEW)
- 2nd EU-observatory, March 2016 (The Hague): side event to the Concerted Action for the Energy Efficiency Directive meeting
- 3rd EU-observatory, June 2016 (Brussels): Back2back with final ENSPOL conference

2.3 Participants

Target groups of the EU-observatory meetings were:

- EU representatives,

- ❖ EU Member State policy makers from ENSPOL partner countries and other countries,
- ❖ administrators of the EEOs and alternative policy schemes in the Member States, and
- ❖ other stakeholders (depending on the specific topics).

As mentioned earlier, members of the EU-observatory meetings had the possibility to exchange knowledge and opinions about issues regarding the transposition of EED Article 7.

To create synergies between the national observatory meetings (NO) and EU-observatory meetings, it was recommended that those country representatives (EU Member State policy makers) that attend the NO should attend the EO meetings as well. Hence the most important issues discussed within national context might have a better chance to be brought up to the EU-level, thereby supporting the effective and proper implementation of Article 7 of the Energy Efficiency Directive.

3 EU Observatory Workshops

3.1 1st EU-Observatory Workshop

The first EU-observatory meeting was held during the European Sustainable Energy Week back-to-back with the intermediate project meeting of ENSPOL on 17th June 2015. It was hosted at the Committee of the Regions as part of the workshops organised during the Energy Sustainable Week.

The meeting was well attended (over 50 representatives): delegates from 10 EU Member States participated (Austria, France, Poland, Belgium, Netherlands, Italy, United Kingdom, Greece, Sweden and Denmark) as well as a representative from Norway and EU level stakeholders such as EURELECTRIC, CAN Europe, eu.bac ESCO, ECF, EFIEES, Eurogas and Stefan Scheuer Consulting.

The hour-and-half meeting was divided in two parts: during the first half, an introduction to ENSPOL and the aim of the EU-Observatory was given. This was followed by Frances Bean's intervention from the Coalition for Energy Savings and it was concluded by three short presentations made by consortium members on key issues of Article 7 implementation. Since the session should facilitate knowledge exchange and enable discussions among the participants, inputs were kept short, leaving enough time for open discussions. During the second part, a plenary discussion on three topics provided by the ENSPOL consortium took place moderated by the project leader:

- **Role of ESCOs and energy suppliers**: How do ESCOs perceive the current Article 7 policy requirements? Are EEOs or existing alternative measures providing the necessary stimulus for ESCOs to develop? What requirements would the market have?
- EEOs/alternatives are primarily used to deliver low cost EE measures. This maximises cost-benefit ratios on an individual level, but does not support technical innovation or behavioral change. **Are these schemes suitable to trigger the diffusion of innovative measures** (dynamic efficiency for EE target?)
- How does the measurement of savings based on the Article 7 work out (with first year only, cumulative savings, discount rates, and lifetimes of measures)? Does it negatively affect or increase the complexity of the procedures and could it be considered as a disincentive for further business development?

ENSPOL Energy Saving Policies

ENERGY SAVING POLICIES AND ENERGY EFFICIENCY OBLIGATION SCHEMES

AGENDA

EU observatory on Article 7 of the Energy Efficiency Directive

17 June 2015

Time Slot: 16 – 17:30 pm

***Venue**: Committee of the Regions (COR)*
Rue Belliard 99-101, B-1040 Brussels
5th floor

16:00 – 16:05	**Opening remarks** *Veronika Czako, Horizon 2020 Energy Unit, EASME*
16:05 – 16:10	**Welcome, short ENSPOL introduction and aim of the EU observatory** *Vlasis Oikonomou, JIN –Joint Implementation Network*
16:10 – 16:20	**ECF / Coalition for Energy Savings report on Article 7 implementation** *Frances Bean, Coalition for Energy Savings*
16:20 – 16:40	**Short inputs on the key issues concerning Article 7 implementation** Analysis and classification of Alternative Measures to EEOs across EU countries *Niki-Artemis Spyridaki, UPRC* Existing and planned EEOs - pros and cons of the current design of the EEOs *Ils Moorkens, Vito* Existing EEOs outside the EU *Tina Fawcett, Ouce*
16:40 – 17:25	**Discussion in Plenary**
17:25 – 17:30	**Wrap-up and Next Steps** *Vlasis Oikonomou, JIN –Joint Implementation Network*

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Figure 1: AGENDA 1st EU-Observatory

3.1.1 Part I – Input Presentations

3.1.1.1 Analysis of Article 7 Member States Reports by the Coalition for Energy Savings

After a short introduction of ENSPOL and the aim of the EU Observatory by the project coordinator, Frances Bean from the Coalition for Energy Savings provided some key findings from their recently published report "Implementing the EU Energy Efficiency Directive: Analysis of Article 7 Member States reports". This report is a first independent stakeholder analysis of Article 7 notifications (2013), National Energy Efficiency Action Plans (2014) as well as updated national notifications on Article 7 (2015). Together with national partners, the Coalition for Energy Savings conducted an assessment of national plans to reach the 1.5 % energy savings reported by Member States to the European Commission.

Altogether 27 plans have been assessed. Those plans have been grouped into three levels:

- "Assessable and good quality reports, and most measures and claimed savings appear correct" (green),
- "Assessable reports, but not fully coherent and/or several measures and claimed savings questionable" (yellow), and
- "Not assessable reports or poor quality reports with many measures and claimed savings questionable" (red).

According to this analysis most plans are missing a credible and meaningful case for how the governments will achieve their savings targets. A lot more needs to be done rapidly according to the Coalition of Energy Funds to ensure commitments to energy efficiency are honored and legal requirements are respected.

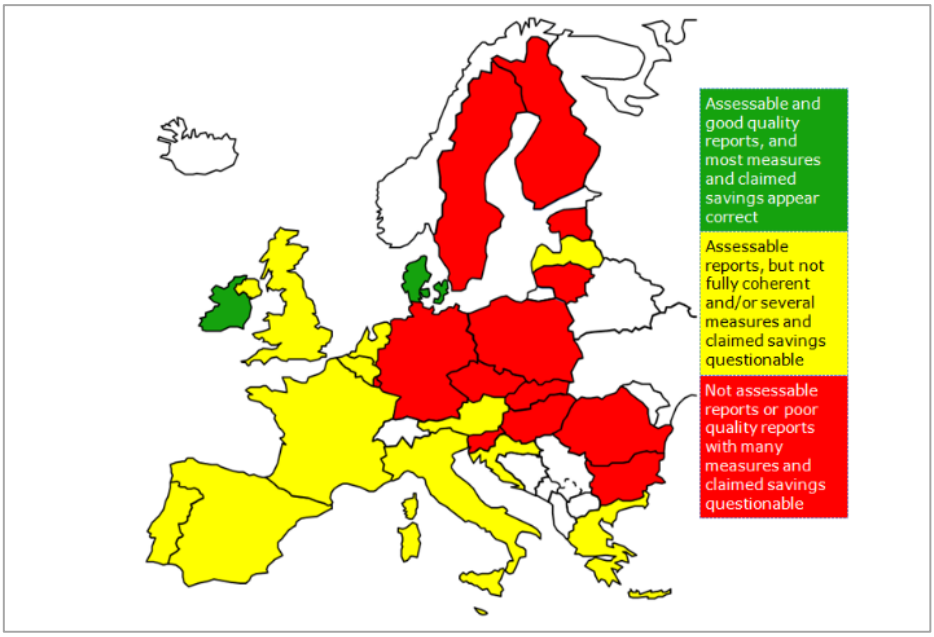

Figure 2: Overall assessment of Article 7 MS Reports

Source: The Coalition of Energy Savings

The most common problems that have been found concern incorrect calculation of the savings target; eligibility of measures, in particular, energy taxation; additionality of the savings (such as savings from buildings standards which may not be above the EU minimum requirements); and double counting of the same savings resulting from different measures. The whole analysis as well as the recommendations can be found on enspol.eu.

3.1.1.2 Analysis and Classification of Alternative Measures to EEOs Across EU Countries

UPRC presented key findings from the analysis and classification of Alternative Measures to EEOs across EU countries done within the ENSPOL project. According to the notifications of MS to the EC, almost all MS have opted for alternative measures: 24 out of 28 MS have relied exclusively on alternative measures, or a combination of alternative measures with EEOs. The 24 MS using alternative measures have reported on over 350 different types of measures in total, in favor of the logic of building on what exists rather than introducing a major new type of policy. Despite the significant amount of alternative measures, the contribution of the latter in the total saving target is approximately 60 %, while EEOs contribute to the remaining 40 % of target savings. Most measures proposed by MS are of financial nature, in the form of grant schemes and low - interest loans, and they outnumber other options.

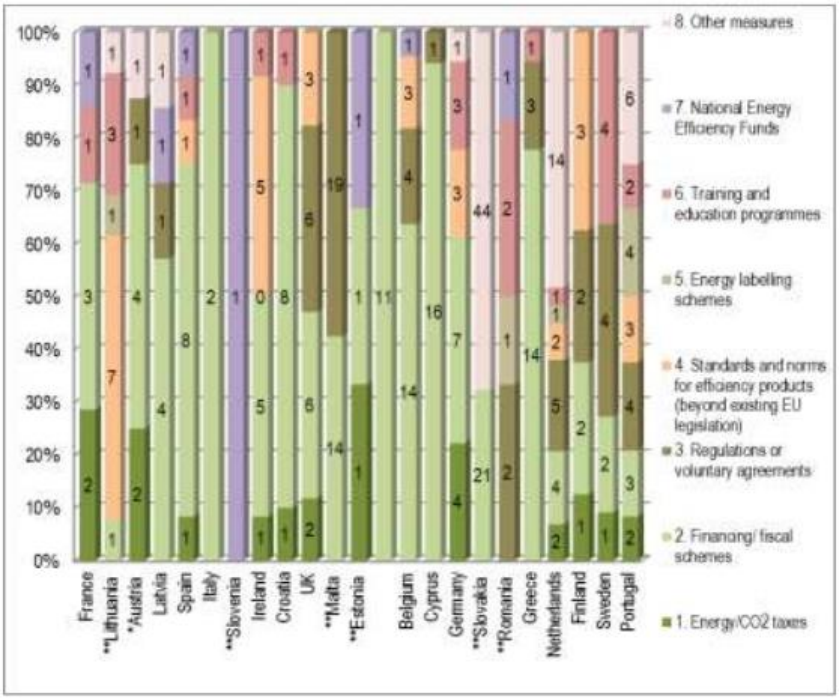

Figure 3: Classification of the different types of policy measures across MS countries

The analysis was conducted based on MS' updated submission due on the 20th of November 2014 to the Commission under Article 7 and the relevant National Energy Efficiency Action Plans (NEEAPs). The full analysis and classification of Alternative Measures can be found on enspol.eu.

3.1.1.3 Existing and Planned EEOs - Pros and Cons of the Current Design of the EEOs

It became apparent that the Energy Efficiency Obligation Schemes (EEOs) are the most important type of policy measure adopted by MS in terms of energy savings – 40 % of the expected cumulative energy savings across all MS are expected to be generated from the implementation of EEOS.

The good ingredients and pros for EEOs include:

- A continuous monitoring of the scheme and the market.
- An inherent learning process that allows for necessary re-design of the scheme.
- A steady growth of the scope (obligated parties) and the level of the savings targets.
- This takes into account the learning process necessary for the scheme to grow.
- A focus on buildings (rather homogeneous measures).

- EEOs can support the growth of the ESCO and energy advice market.
- The general awareness regarding energy efficiency is increased.
- A primary focus on low-cost measures (e.g. efficient lighting, efficient boilers, and roof insulation)

The full analysis and classification of Existing EEO Schemes can be found on enspol.eu (Report D2.1.1, Evaluation of existing schemes). This report describes and analyses the existing EEOs within the European Union; i.e. those of Belgium (Flanders), Denmark, France, Italy, Poland and the United Kingdom.

The full analysis and classification of Planned EEO Schemes can be found on enspol.eu (Report D2.1.1, Evaluation of planned schemes).This report deals with the planned, new Energy Efficiency Obligation Schemes (EEOs) within the European Union Member States (MS), as requested for the implementation of the Article 7 of the Energy Efficiency Directive. The MS explored in this report that have declared their plans to adopt an EEO scheme (often linked to alternative measures) are Austria, Bulgaria, Estonia, Hungary, Lithuania, Luxembourg, Malta, Ireland, Spain and Slovenia.

3.1.1.4 Existing EEOs Outside the EU

There is significant experience of EEOs in several countries outside the EU. The objective of this report was to analyse relevant non-EU experience, including both design and results of EEO policies, and to draw relevant recommendations for MS considering EEOs as a means of implementing Article 7 of the EED. Based on this non-EU experience, the recommendations for policy makers in the EU using and considering EEOs are as follows:

- EEOs should set ambitious goals, building up over time.
- Design details need to be appropriate for the market structure.
- Obligated parties should be either required or incentivized effectively, i.e. so that non-delivery is less profitable.
- EEOs should focus on delivering benefits over and above those from minimum standards.
- EEOs should be part of policy packages that include standards, innovation support and consumer engagement.
- Policy makers should investigate innovative approaches to delivery using actors other than energy companies.

Full report on Existing EEOs outside the EU can be found on enspol.eu (Report D2.2 EEOs outside the EU).

The complete presentation can be downloaded from the project website http://enspol.eu.

3.1.2 Part II – Discussion in Plenary

During the second session, a plenary discussion on three topics provided by the ENSPOL consortium took place:

Role of ESCOs and energy suppliers: How do ESCOs perceive the current Article 7 policy requirements? Are EEOs or existing alternative measures providing the necessary stimulus for ESCOs to develop? What requirements would the market have?

- Italy has a large number of ESCOs (still expanding); this is inter alia due to the fact that obligations were placed on distributors which are not willing to collect measures giving room for ESCOs.
- Often big ESCOs are supported by regulation; for smaller ones, it is hard to remain in this competitive market.
- Incentive for market; most of ESCOs to collect those projects that have been done already; real ESCO services third party financing.
- Eurogas: DSOs are reluctant to lose money; depends on how you design incentive regulations; DEO should have a future in the market.
- Danish distribution companies where able to work on that ESCO market. Electricity distribution companies (which have had an obligation for the longest period of time) have used the new market for energy efficiency services to establish energy service companies. In Denmark, the EEO has delivered innovative business models.
- Euroelectric: A lot depends on the implementation of measures; Denmark is a very good example indeed, but in other cases less successful and more forceful.
- In the Netherlands, there is significant energy service company activity. Without government intervention there would be no growing ESCO market. Only a few ESCOs are in place at the moment. If there is a demand for service a market will develop.
- France has a long tradition in ESCO markets already, nevertheless the obligation on Energy suppliers did help to further structure the ESCO market development.
- Benefit: is that people that were not used working together were/are forced to cooperate and discuss jointly new business models;
- The UK has involved ESCOs at a very early stage. Energy suppliers have not become ESCOs and seldom deliver energy efficiency programmes or measures themselves. Instead they contract out the delivery of measures to insulation, building and energy system businesses.

EEOs/alternatives are primarily used to deliver low cost EE measures. This maximises cost-benefit ratios on an individual level but does not support technical innovation or behavioral change. Are these schemes suitable to trigger the diffusion of innovative measures (dynamic efficiency for EE target?)

- EEO schemes can deliver on "low-hanging fruits", thus hindering the development of new innovative products.
- Many schemes focus so far on the buildings sector, promoting low-cost measures like roof insulation.
- According to Denmark, an EEO scheme can promote technical innovation; a market tool for innovative products could support that.
- With a proper design, EEO schemes could create a robust energy efficiency marketplace that encourages innovation and also long-term energy efficiency improvements are possible.
- Most energy efficiency measures implemented (or yet to be implemented) in Europe involve technological interventions, but will equally have to rely on people adjusting their energy consumption behaviour.
- The question raised during the observatory was on "How to make clear documentation of behavioural changes?"
- UK: Talking about how the measure has been achieved is difficult, not able to get into that detail; UK administrator OFGEM previous scheme was different from the one they have now; before it was more open, they had more time to set it up and develop scoring system for new measures (R&D).
- France: Regarding innovation, both standard measures and non-standard measures will contribute. They consider EEOs as a driver/supporter of innovation. Innovations firstly implemented and then "mainstreamed".
- Give a chance to develop a measure level playing field, have a chance for investment in new technologies.
- UK – government used to have a designated scoring system.
- Trade off in accuracy and simplicity for customer and marketing it.

How does the measurement of savings based on the Article 7 work out (with first year only, cumulative savings, discount rates, and lifetimes of measures)? Does it affect negatively or increases the complexity of the procedures and could be considered as a disincentive for further business development?

- Denmark: targets to meet the needs, procedures on how to collect them; important to always keep in mind rules look good on paper but do not work in reality;
- UK – trade-off between heavy regulation and the front end- get balance

- Spend more money on administration than on savings
- Calculation methodology not straight forward as CO_2 – Denmark lots of experience with catalogue of measures;
- Italy: measurement of savings most easiest deemed saving approach; everything can affect the administrative costs (Italy only 1 % of total costs of EEOs)
- Residential sector smart meters in Italy, UK will try to get some info; get advantage of it.
- Greece – transfer of EEO scheme to energy bill –one of the main things why Greece hasn't adopted an EEO is that the cost will go to the bill.

3.1.3 Next Steps

The 1st EU observatory was the starting point for creating an active platform for knowledge exchange on the topic of EED implementation. Apart from the official envisaged meetings for the EU-Observatory, continuous communication has been maintained among its members.

The first meeting was well attended followed by fruitful discussions. As there were two more EU-observatory meetings to follow within the project, a reflection process has been initiated. Within the project consortium some time was spent to reflect on the first meeting in order to learn from it and use the knowledge to help further improving the next two meetings.

Some aspects/ideas that have been discussed after the 1st EO:

Participation from all EU Member States: Though the meeting was well attended, over 50 representatives from 9 EU member states (Austria, France, Poland, Belgium, Netherlands, Italy, UK, Greece and Denmark) as well as a representative from Norway and EU level stakeholders such as EURELECTRIC, CAN Europe, eu.bac ESCO, ECF, EFIEES, Eurogas, Stefan Scheuer Consulting. The main aim is to attract representatives from other Member States as well, that are not part of the consortium. In order to engage more stakeholders to participate from the rest of the EU Member States, the idea is to involve Paolo Bertoldi from JRC.

Duration of the Meeting: The time slot within the first meeting was limited to 1.5 hours, which was in fact a bit too short for in depth discussions. The 1st EU observatory was actually planned as a half-day event. As there was no extra budget available for the meetings, the main aim of the consortium was to link it to another suitable meeting in order to reach the target stakeholders. Therefore it has been organised back-to-back to the European Sustainable Energy Week. The next meeting should be designed as a half day or full day event.

How to involve more partners and make it even more interesting for them?

- Try to include more DSOs as key players,
- Update non partner countries more regularly on project results and/or specific topics.
- Compile and distribute a short position paper before the meeting and spread key points for discussion so participants are given the chance to better prepare for the meeting and discussions.
- Stakeholder platform
- Propose different topics that could be relevant for different groups of stakeholders, i.e. government participants, ESCOS, DSOs and so on.

Focus on different sectors: Measures reaching the targets set in the EED include the legal obligation to establish an energy efficiency obligation (EEO) or alternative policy measures in all Member States. The goal is to drive forward energy efficiency improvements in different sectors as households, businesses, industries as well as the transport sectors. The key issues and stakeholders differ within the sectors. For this reason it might be useful to address the specific sectors with different topics for discussion.

Ensure continuous communication among members of the EU observatory

Apart from the official envisaged meetings for the EU Observatory, continuous communication will take place among its members in the form of teleconferences, web conferences and regular email communication in the framework of the stakeholder platform

Use the stakeholder platform as an instrument to engage stakeholders actively: The stakeholders' web platform will serve as a central repository of information and signpost to other relevant information, scientific research and websites. The platform will bring together all the knowledge relating to implementation of Article 7 in one place as well as disseminate reports, relevant projects' deliverables, peer-reviewed papers' summaries and articles in the electronic press to support the exchange of information.

The platform will be interactive and attractive and on the other hand easy to navigate and fast in providing information. A newsflash as a side panel will be implemented, which will include all the latest posts of ENSPOL Twitter account, for fast dissemination of the news and the information that the project partners share at social media.

The ENSPOL platform is expected to be launched in fall 2015. As soon as it will be available, it will be part of a continuous stakeholder engagement process and serve as a tool for communication in between the three EU observatory meetings.

Specify Dates for the 2nd EU observatory meeting: The initial idea was to link it to the CA EED meeting in October in Luxembourg. Though the CA EED is always open to presentations from other projects it is not possible to hold the second observatory in one session of the regular CA EED agenda. Therefore, the next EU observatory will be most probably hosted as an individual event in Brussels (November/December 2015). Dates have to be specified.

Developing a strategic plan for the survival and management of the EU Observatory beyond the end of the project

The funding from the ENSPOL project will be used to launch and run the observatories for the initial start-up period, but the aim is to make the observatories permanent structures. To achieve this aim, a strategy needs to be developed in the course of the project to ensure adequate funding from private sources is available to run the observatories.

All the above mentioned aspects have been taken into account for the next EO meetings that have been organised within ENSPOL.

3.2 2nd ENSPOL EU-Observatory

The second EU-observatory meeting was held prior to the CA EED Meeting on 16th March 2016.

The meeting was well attended (around 40 representatives): this time delegates from 15 EU Member States participated (Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, France, Germany, Greece, Italy, Netherlands, Poland, Slovenia, Sweden and UK) and EU level stakeholder representatives from eceee, the Coalition for Energy Savings, the White Certificate Club as well as the European Climate Foundation (ECF).

During the half-day meeting, key findings from the "Guidelines for implementing EEOs and alternative schemes from Task 5.1" have been presented: lessons learned from France and Italy, Monitoring & Verification issues, introduction to the knowledge sharing platform on Article 7 EED, and potential of observatory networks to support the implementation of Article 7 of the EED.

ENSPOL Energy Saving Policies

ENERGY SAVING POLICIES AND ENERGY EFFICIENCY OBLIGATION SCHEMES

AGENDA 2nd EU Observatory

2nd EU-Observatory

Venue: Bilderberg Europa Hotel
Zwolsestraat 2, 2587 VJ Scheveningen, The Hague

***Date:** 16.03.2016*

14:00 – 14:10	**Welcome, short introduction to ENSPOL and aim of the EU observatory** *Vlasis Oikonomou, JIN – Joint Implementation Network*
14:10 – 14:50	**Policy mixes: their influence on meeting Article 7 targets'** *Vlasis Oikonomou, JIN – Joint Implementation Network* *Nick Eyre, Ouce – University of Oxford*
14:50 – 15:35	**Lessons learned from first implemented measures to date** *Lessons learned from the Italian WhC scheme* *Alberto Pela – GSE* *Lessons learned from the French EEO scheme* *Christian Deconninck, ATEE – Association Technique Energie Environment*
15:35 – 15:50	**Coffee Break**
15:50 – 16:25	**Monitoring & Verification issues** *European best practices on monitoring and verification – results from the Horizon 2020 project multEE* *Christos Tourkolias, CRES –Centre for Renewable Energy Sources and Saving*
16:25 – 16:50	**Introduction to the knowledge sharing platform on Article 7 EED** *Emilie Carmichael, EST – Energy Saving Trust*
16:50 – 17:25	**Potential of observatory networks to support the implementation of Article 7 of the EED** *Jose Manuel Vega Barbero, SEI at University of York* *Dario Di Santo, FIRE - Italian Federation for the Rational use of Energy* *Nina Pickl, AEA – Austrian Energy Agency*
17:25 – 17:35	**Wrap-up and Next Steps** *Vlasis Oikonomou, JIN – Joint Implementation Network*

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Figure 4: AGENDA 2nd EU Observatory

3.2.1 Policy Mixes: Their Influence on Meeting Article 7 Targets

In order to get a better understanding of the types of policy mix currently being used in the EU, an analysis has been carried out within the ENSPOL project. Some key findings of this report have been discussed around the following two leading questions:

1. In theory, what combinations of instruments will be most effective?
2. In practice, which combinations are being used in Article 7 submissions?

The whole report and analysis 'Combining Energy Efficiency Obligations and alternative policies' can be downloaded from enpol.eu.

The presentation can be also be downloaded from the above-mentioned project website.

3.2.2 Lessons Learned from France and Italy

The existing EEOs in the Member States show the diversity of possible designs. For example, among the countries that have had an EEO in place before the EED (e.g. France, Italy, Denmark, United Kingdom, etc.), Denmark has a strong focus on industries, while in the EEOs in France, Italy or United Kingdom the public sector as well as households dominate. For some MS, EEOs are economically attractive while for others they would not be the best solution and therefore MS are better off choosing an alternative approach.

How best to design EEOs, white certificates or other market mechanisms for energy efficiency depends on national characteristics, for example the savings potential, other measures being in use and the tradition and experience with energy efficiency. During the 2nd EU-observatory, Italy and France shared some of their lessons learned.

3.2.2.1 France

France has introduced Energy Saving Certificates (ESCs or white certificates) in 2005 as a means of reducing final energy consumption. Since its launch, it is France's main policy to reach its 2020 energy efficiency target. As other schemes this one has grown incrementally and steadily in scale allowing time for redesign and adaption. By leaving enough time for a learning process EEOs can deliver substantial improvements in energy efficiency and become key components of the national policy mix.

France is one of the few that obliges suppliers of automotive fuel to achieve energy savings. Including them in the scope of the EEO, allows targeting a much more ambitious objective, while increasing the competition between obligated parties and the diversity of offers and

business models developed to reach final consumers. France shared some of its lessons learned within the transport sector:

- Equipment is regularly and naturally replaced by more efficient/higher standard elements
- Small, diffuse and mobile operations earning little and costing high to gather proofs,
- Standard reference rules made for stationary operations need to be adapted quite often.
- Infrastructure investment is rightly not in the scope of Transport WC
- Transport operations depend a lot upon business models and obligation scheme design :
  - Long-haul car sharing WC has found its way in France (**x TWhc**) at the moment.
  - Short-haul car sharing (still below 1 GWhc/y) and car-pooling (some MWhc) are still in the starting blocks, and not sure they will ever develop.

Success stories occur when the following aspects are taken into account:

- A smart rule is found out to gather proofs at low cost
- Operations are more sizable: trucks replacement, intermodal transport
- Introduction of Transport Obligation has strongly contributed to **open the WC market**, just like obligation upon gas/electric distributor does. But it has also introduced disadvantage to transport fuels sellers which cannot give a premium through a rebate on goods to buy in their supermarkets (margin, VAT).
- Programmes (funds) can help

The presentation can be downloaded from the project website enspol.eu.

3.2.2.2 Italy

EEOs and the related tradable white certificates have been used for many years in Italy. Italy has introduced the white certificates scheme (also known as “Energy Efficiency Certificates” (EEC)) into the Italian legislation by the Ministerial Decrees of 20 July 2004, as subsequently amended and supplemented. Different mechanisms within the scheme evolved over the 10 years of experience. In terms of €/ton saved it is the most effective support scheme in Italy. The WhC prices are transparent and accessible for the public. Thanks to ESCO involvement there is a high participation from the private sector. The industrial sector perceives the WhC scheme as a stable investment opportunity. Monitoring and Verification is a key to the feasibility, robustness and cost-effectiveness of the EEO.

The presentation can be downloaded from the project website enspol.eu.

3.2.3 Monitoring & Verification Issues

Input on Monitoring and Verification issues has been given via the Horizon2020 project multEE. This project aims to improve the consistency and quality of energy efficiency policy planning and implementation through innovative monitoring and verification schemes as well as through improved coordination between different administrative levels.

Within this project, a comprehensive mapping of the existing Monitoring & Verification (M&V) schemes in the 28 Member States (MS) and the FYR of Macedonia has been performed.

The vast majority of the examined States have already introduced a general M&V scheme or a certain number of M&V schemes for different energy efficiency programs. According to this analysis, 18 States have already developed a M&V scheme, while the M&V scheme is currently in development phase and in implementation phase for three of the examined States.

The existing M&V schemes have been established and introduced in the States either through the transposition of the ESD and the monitoring of the National Energy Efficiency Action Plans (18 States) or through the transposition of the EED and the monitoring of Article 7 (8 States). The majority of the States have adequate experience in the operation of the M&V schemes due to the fact that the establishment was performed within the framework of the ESD, which was adopted in 2006. Nevertheless, the experience of the States may not be considerable for the cases that the establishment of the M&V schemes was performed within the framework of Article 7 of the EED due to the short period of implementation.

The main conclusions that have been presented concerning the existing M&V schemes can be found in the full report on multee.eu.

The presentation can be downloaded from the project website enspol.eu.

3.2.4 Introduction to the Knowledge Sharing Platform on Article 7 EED

This platform focuses on exchanging knowledge and experience between stakeholders across Europe on the implementation of EEOs and alternative measures, to inform and improve the implementation of the Energy Efficiency Directive (Article 7). The Article 7 EED knowledge sharing platform brings together information on energy efficiency obligation schemes (EEOs) and alternative policy measures from across the EU (and beyond) in one

central place. The aim is to make this information easily accessible and available to a wide audience in order to:

- enable the dissemination of knowledge and experience and
- inform and support policy making and implementation.

The platform aims to provide information on past experiences and current challenges of EEO schemes and alternative policy measures. The primary source of information on the platform currently is the Intelligent Energy Europe (IEE) ENSPOL project, but reference is also made to a range of other relevant and related studies and resources with the expectation that this content will grow over time through contributions made by users of the platform.

The presentation can be downloaded from the project website enspol.eu.

3.2.5 Potential of Observatory Networks to Support the Implementation of Article 7 of the EED

Within the ENSPOL project, the creation and implementation of national observatories as well as EU-observatories has been strongly supported to aid MS in the implementation of Article 7 of the EED.

The national observatories are autonomous entities whose agenda is set at national level by the specific MS while the EU observatory brings together participants from national observatories as well as EU-level stakeholders to foster exchange of experience.

Those observatory networks supported MS by facilitating the exchange of experiences between MS on a regular basis, allowing policy makers and national agencies offices to share in-depth analysis of new and existing schemes, helping policy makers in monitoring how EEOs and alternative measures being implemented as well as in identifying potential barriers for the implementation of EEOs and/or alternative schemes giving room for discussing ideas on how to overcome those. Hence the observatories have been perceived as very helpful and supporting; thus participants of the EU-observatory meeting would like to keep that platforms even beyond the ENSPOL project lifetime.

The presentation can be downloaded from the project website enspol.eu.

3.2.6 Next Steps

Until the 2nd EO meeting an active platform for knowledge exchange on the topic of EED implementation has been successfully created. The 2nd EO meeting showed the need for this

exchange platform. Fruitful discussions took place between the different stakeholders present.

Unlike the first EO, this meeting lasted half a day, leaving more time to discuss hot topics concerning the implementation of Article 7 of the EED in detail.

During the 2nd EO meeting, ENSPOL managed to engage more stakeholders from MS not part of the consortium. Representatives from 15 EU MS have been present, hence more than during the 1st EO meeting.

To ensure communication between EO members ENSPOL offered a series of webinars. These webinars took place between 2015 and 2016 addressing specific topics concerning Article 7 implementation of the EED. The stakeholder platform that has been presented during the 2nd meeting offered another opportunity for exchange between the meetings.

Stakeholders remarked that the format of the EOs is very helpful and should be prolonged beyond the project lifetime. In order to discuss this aspect further and to develop strategies for the survival of the platform the ENSPOL consortium decided to run a stakeholder survey to get further opinions and ideas and work out a decent plan for the survival of the platform. The results have been presented during the 3rd EO meeting in June 2016.

3.3 3rd ENSPOL EU Observatory

The 3rd EU-Observatory was held after the ENSPOL Final Conference on the 13th of June in Brussels.

The meeting was well attended (over 40 representatives): delegates from 14 Member States participated (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Greece, Italy, Latvia, Netherlands, Poland and the UK) as well as EU level stakeholders.

During the half-day meeting, the main results of the stakeholder survey that has been prepared and run after the 2nd EU-observatory meeting were presented. The main intention of this survey was to receive feedback from stakeholders about the **National Observatories (NOs)** as well as **EU-Observatories (EOs)** to further improve them and to collect their views about the continuation of the EOs after the project end.

Furthermore, ENPSOL case studies from Italy and Croatia have been presented showing how ENSPOL facilitated implementing or improving their EEOs.

The discussion about a possible strategic plan for the survival of the EOs was introduced by a presentation from France followed by a final plenary discussion; during the plenary discussion, participants discussed the key topics that should be maintained after the end of the ENSPOL projects as well as possible strategies for their continuation.

14:20–16:15	***3RD. EU. OBSERVATORY:. OBSERVATORY. NETWORKS. &. STAKEHOLDER. ENGAGEMENT. WITHIN. ENSPOL.*** ¶ *Moderators:.AEA,.SEI.*¶ ¶ ***EU.Observatory.(20')***¶ - → *Overview.and.feedback.of.ENSPOL.activities,.AEA.*¶ - → *Case.studies:.Ireland,.Josephine.Maguire,.SEAI.(to.be.confirmed).*¶ ¶ ***National.Observatories.(20')***¶ - → *Overview.and.feedback.of.ENSPOL.activities,.FIRE*¶ - → *Case.studies:.Croatia,.Mia.Dragovic,.CEI*¶ ¶ ***BREAK.15'***¶ ¶ ***Stakeholder. Knowledge. Platform.(10')***¶ *Feedback.on.ENSPOL.stakeholder.platform,.EST*¶ ¶ ***Is.there.life.after.ENSPOL?. The.future.of.the.ENSPOL.Observatory.network.&.stakeholder. platform.(20')***¶ - → *Presentation.Christian.Deconninck,.ATEE*¶ - → *Plenary.discussion,.moderator.SEI.*¶ - → *Linking.up.with.existing.EU.initiatives:.Energy.Efficiency. Platform.of.JRC,.JRC.(to.be. confirmed).*¶ ¤

Figure 5: AGENDA 3rd EU Observatory

3.3.1 Part I – Input Presentations

3.3.1.1 3rd EU Observatory

Overview and Feedback of ENSPOL Activities

In the first presentation of the 3rd EU Observatory, Gregor Thenius from the Austrian Energy Agency gave a short overview on the purpose of the EU Observatory and a review of the previous Observatories in Brussels and The Hague.

In the second part of the presentation, results from the survey conducted after the 2nd EO were presented:

1. **Have the EU Observatories helped to improve the implementation of Article 7?**
   25 % of participants in the survey found the Observatories helpful for the implementation of Article 7. Comments from the participants that voted "No" or "I don't know" explained that they already had an established method for Article 7 by the time of the first EU Observatory.

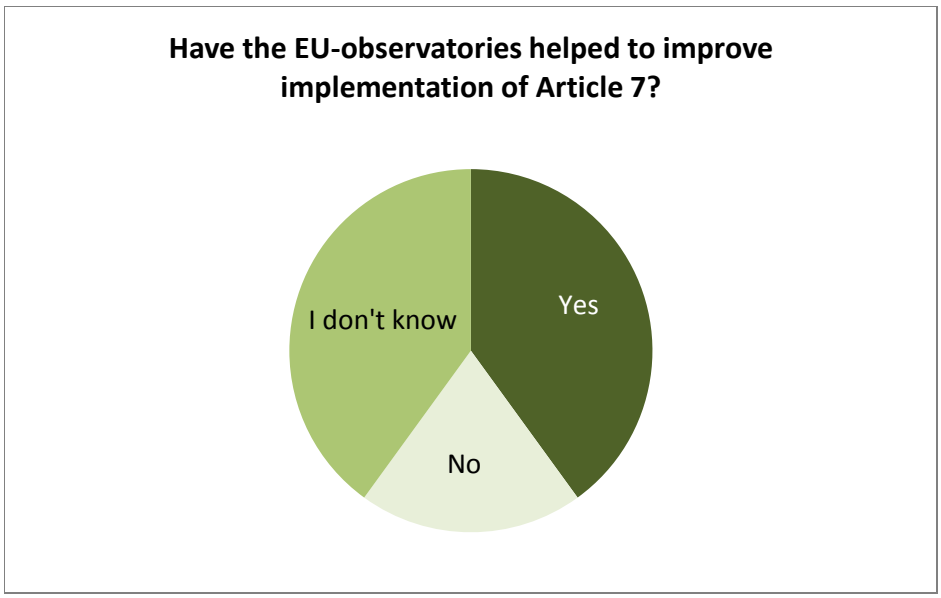

Figure 6: Have the EU-observatories helped to improve implementation of Article 7?
Source: ENSPOL Survey, graphic Austrian Energy Agency

2. **Which topics are you most interested in?**
   The topics selected the most were "Methods for calculating energy savings", "Materiality & Additionality" and "Energy Efficiency Obligation Schemes".

3. **Should the EU Observatory be maintained / continue to exist once the ENPSOL project has ended (August 2016)?**
   75 % of the participants in the survey think that the EU Observatory should be maintained.

4. **Which other stakeholders should participate in the EU Observatory if it were maintained / continued?**
   The stakeholders voted the most for "Scheme administrators", "European Commissions" and "Relevant Ministries / Government Departments".

5. **What roles do you think the EU Observatory should / could play in supporting the implementation of Article 7 EED?**
   The roles voted for most were "provide information and discussion", "capacity building" and "maintenance of the ENPSOL knowledge sharing platform".

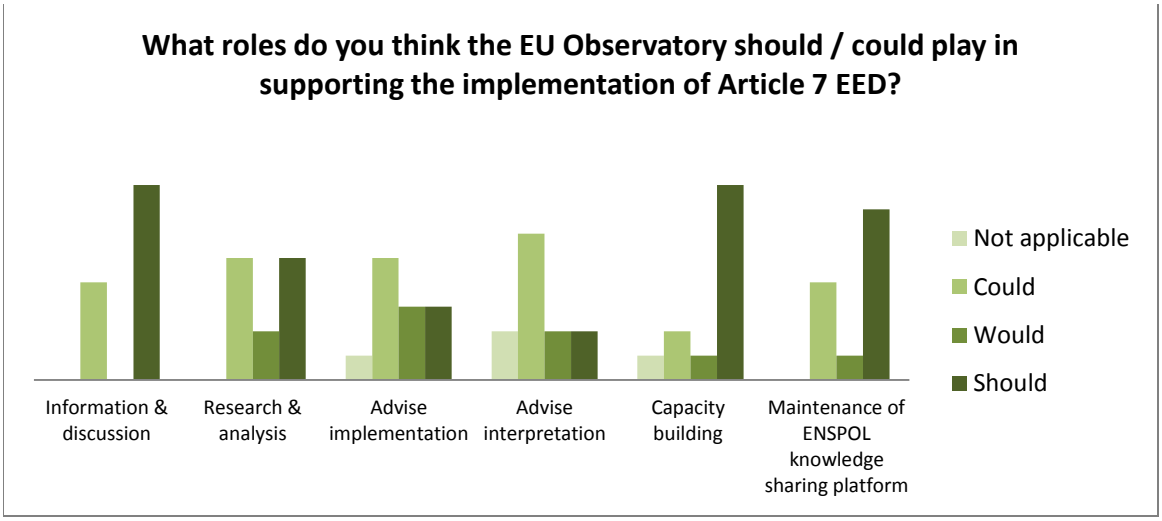

Figure 7: What roles do you think the EU-observatory should/could play in supporting the implementation of Article 7?

Source: ENSPOL Survey, graphic Austrian Energy Agency

All in all, the EU Observatories were well received and stakeholders are interested in future activities. There is a wide variety of different stakeholders that could discuss topics from different perspectives.

Case study: Italy

Alberto Pela from GSE gave an overview on GSE's assignments in Italy's energy policy which consists of the promotion of renewable energies, combined heat and power and energy efficiency. GSE also supports the schemes for Green Certificates, Feed-In Tariffs and White Certificates.

On a European level, they attended the second EU Observatory in The Hague, the ENPSOL Webinars in 2016 and a Workshop between UK, France, Denmark and Italy in 20154 and saw them as an opportunity to exchange national experiences and best practices.

On a national level, they attended Italy's National Observatories and the White Certificate Observatory. Those events created occasions for technical dialogue with other Italian stakeholders on the White Certificates regulatory sector.

3.3.1.2 National Observatories

Overview and feedback of ENSPOL activities

Dario Di Santo from FIRE presented the aim of the main national actions carried out within ENSPOL. National actions can be divided in three groups:

- **Capacity Building Workshops** were carried out to share the result of the analysis activities of the ENSPOL project and to facilitate the relevant stakeholder to join the observatory network.
- **National Training Courses** (NTC) illustrate in detail how to deal with typical issues like additionality, energy savings evaluation, obliged parties, etc. NTCs aim to help MS that did not have an EEO in place to evaluate the pros and cons of such schemes compared to other opportunities and to implement them in the best way.
- **National Observatories** facilitate the discussion about EEOs and alternative measures - including issues like additionality, materiality, monitoring and verification, costs, etc. - among the relevant stakeholders at national level. They are an opportunity gather feedback from stakeholders about opportunities to improve the scheme as well as to monitor its outcomes and share experiences. Ideally, they can help connecting national and EU policy activities or different EEO schemes.

After this general information, the topics of Italy's National Observatories were presented:

The first observatory meeting in Italy covered the responsibilities of ESCOs and end-users regarding additionality and baseline as well as cost-benefit evaluation and took place when the consultation document about new guidelines was completed.

In the second observatory in Italy, lifetime of savings, evaluation of proposals and the time span for recognition of white certificates where discussed. It corresponded with the end of the public consultation about new guidelines.

During Italy's third observatory, participants discussed synergies between energy efficiency measures that emerged from energy audits and white certificates and has been used to put together Articles 7 and 8 of the EED.

Concerning feedback from the survey on ENPSOL activities, three representatives of Member States stated that the National Observatories played a positive role in improving their existing schemes. Two representatives of Member States showed interest in adding National Observatories to their schemes.

Case study: Croatia

Mia Dragović from the Energy Institute Hrvoje Pozar talked about Croatia's System for Measurement and Verification (SMIV). It started as a project in coordination with GIZ in 2008 and has become the official Croatian M&V tool for the Energy Efficiency Act. SMIV collects all public energy efficiency plans and links them to the provided algorithms. The energy efficiency targets under Article 5 are monitored as well as the bottom-up monitoring targets under Articles 3 and 7.

Up to now, there are 6142 measures (making up total savings of 0,61 PJ) and 30 local energy efficiency plans registered so far. They were entered by 80 educated users. Five European countries are thinking of using the SMIV for their Efficiency Act as well.

3.3.1.3 Stakeholder Knowledge Platform

As a reminder on the 2nd EU Observatory, Emilie Carmichael from Energy Saving Trust explained the aims of the Knowledge Sharing Platform and gave an overview on its functions.

Afterwards, the results of the survey about the platform were presented. 94 % of the participants of the survey rated the platform "very useful" or "useful" and are using it monthly or quarterly. The user experience is satisfying for 50 %. There are approximately 700 unique users each month with most interest in the Country Level pages. The most requested topics for content expansion are Monitoring & Verification, Calculation Methods and Additionality.

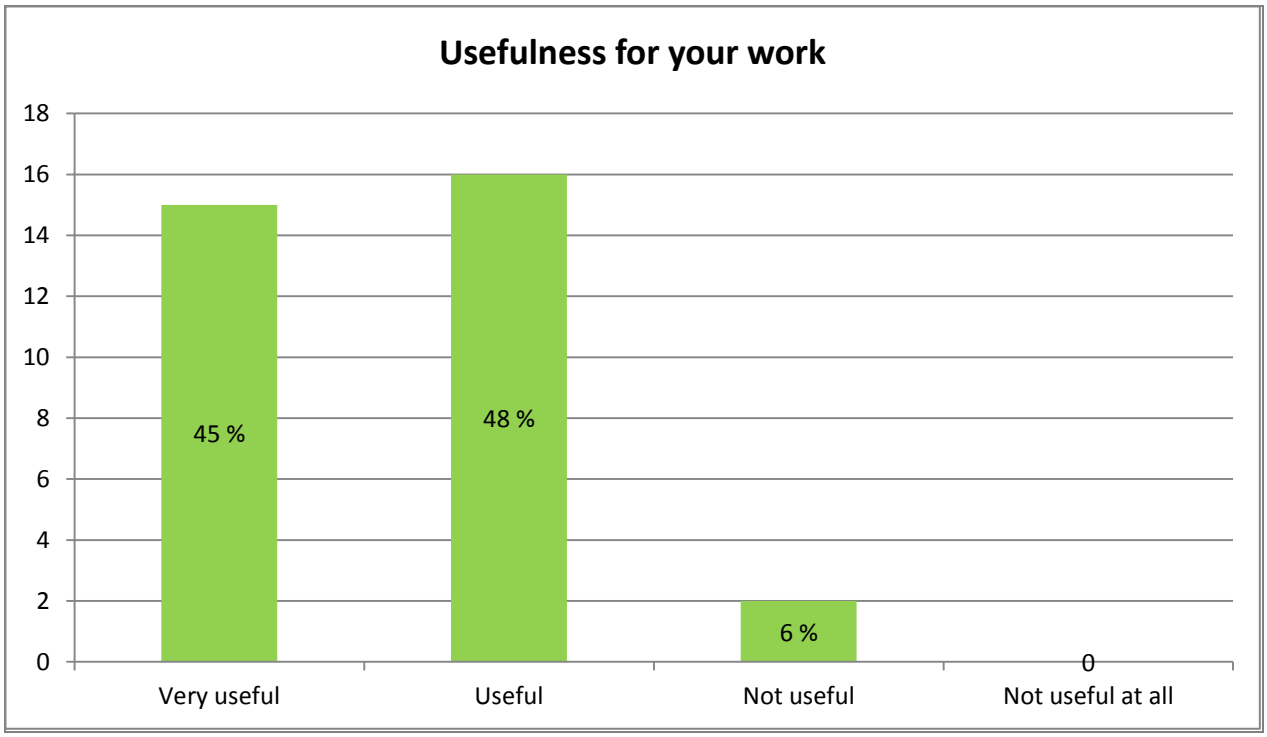

Figure 8: Usefulness of Knowledge-sharing platform for the work of the stakeholders.
Source: ENSPOL Survey, graphic by EST

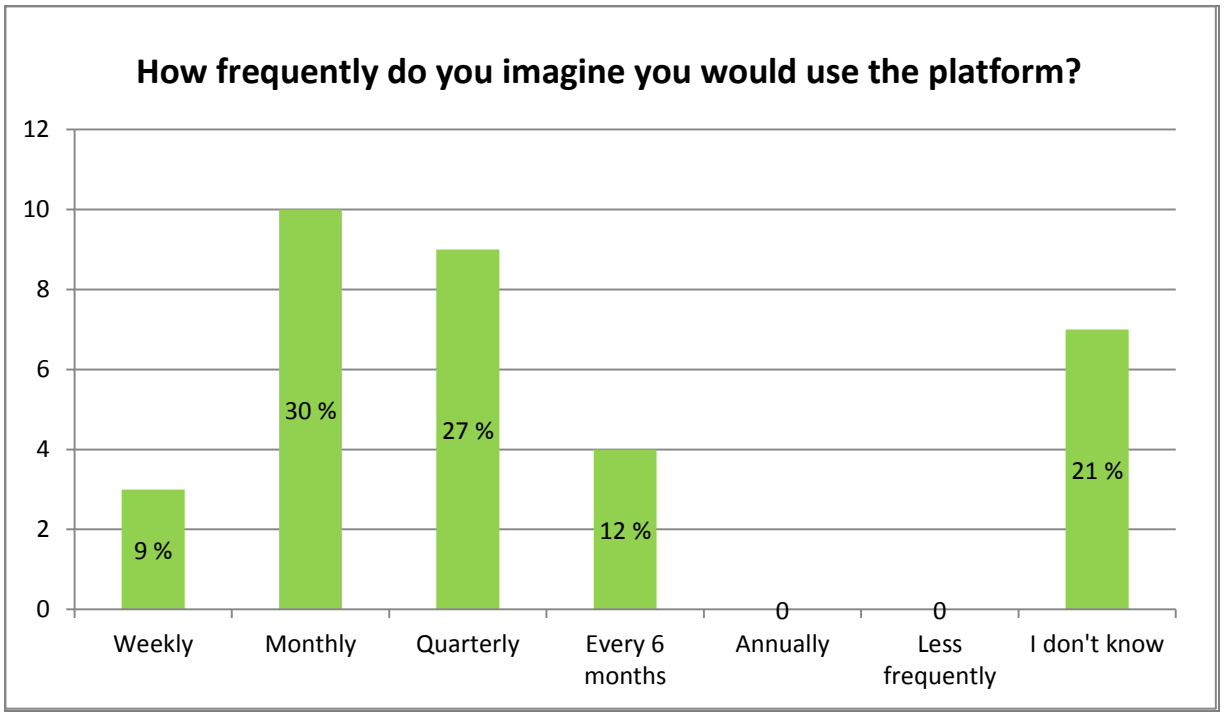

Figure 9: Frequency of platform usage?
Source: ENSPOL Survey, graphic by EST

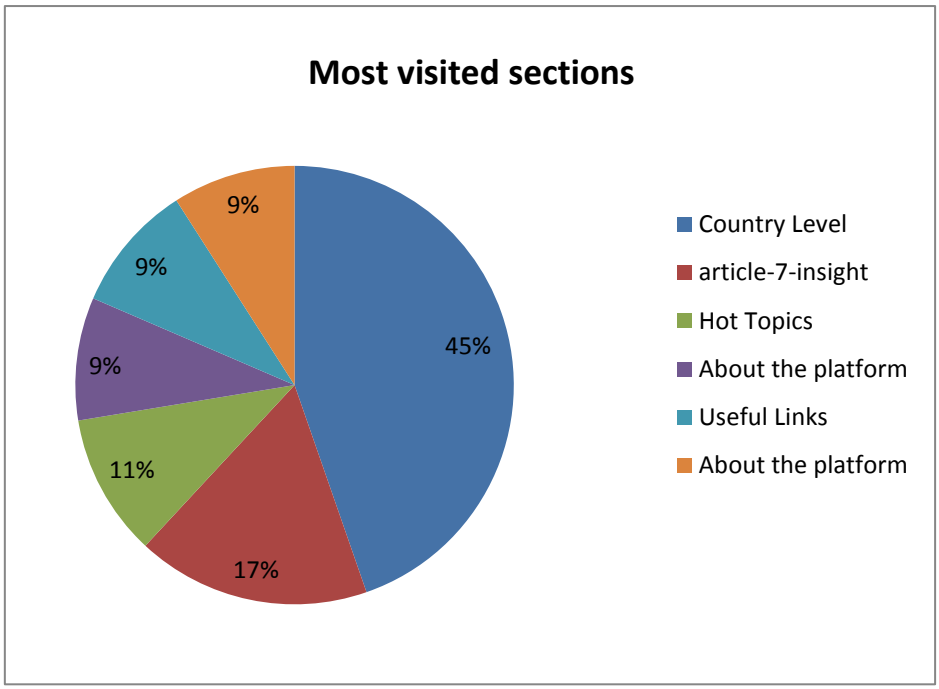

Figure 10: Most visited sections of the knowledge sharing platform.

Source: ENSPOL Survey, graphic by EST

3.3.2 Is there life after ENSPOL? The Future of the ENSPOL Observatory Network & Stakeholder Platform

In the first part of this session, Christian Deconninck talked about the White Certificates Club (WCC) and ATEE's ideas for the future of the ENPSOL network.

One suggestion was to organise a WCC meeting with focus on EEO evaluation and invite members of the former ENPSOL project to maintain discussions on the implementation of Article 7. Other countries could organise such workshops in the following years. The organisation of webinars could be a more cost-effective possibility for information exchange.

It was noted that a budget for further information exchange will be needed. This might come from the EU Commission, National Authorities or Agencies or main stakeholders of the EEOs (via membership). In the last case, members could for example provide free invitation to events like seminars or webinars, support from expert organisations regarding EEOs or access to more information on the post-ENSPOL website.

Nevertheless, after the end of the project, some organisations have to be willing to commit to keeping the aim of the project alive. Additionally, a board or committee with representatives from each member of the network will be needed for at least one meeting per year. Ideally, at least one of the members should be in position to discuss with the Commission and participate in the Concerted Action on EED.

In the final presentation, Jose Manuel Vega Barbero from the University of York summarised the meaning of the two different types of Observatories. Their aim is to support Member States in the implementation of their energy efficiency policies and provide knowledge exchange.

National Observatories are meetings between national entities like scheme administrators or other relevant stakeholders of the Article 7 implementation, while the EU Observatories bring together the members of the several National Observatories and organisations of the European Union.

3.3.3 Part II – Discussion in Plenary

In the plenary discussion, the question of how and which activities established during the project can be maintained after the end of ENPSOL was raised.

Every participant had the opportunity to pick two activities / topics that appeared must valuable to him or her. The activities / topics to choose from were:

- provide a platform for discussion and exchange of knowledge and information amongst national stakeholders, by organizing and hosting (EU level) meetings,
- maintenance of the ENSPOL knowledge sharing platform,
- advice on Article 7 EED transposition & implementation,
- webinars on specific topics linked to the implementation of Article 7,
- capacity building workshops across countries linked to the implementation of Article 7,
- capacity building workshops at national level linked to the implementation of Article 7, and
- regular updates of the reports and studies that have been produced within the ENPSOL project.

Activity	# of votes
Provide a platform for discussion and exchange of knowledge and information amongst national stakeholders, by organizing and hosting (EU level)meetings	13
Maintenance of the ENSPOL knowledge sharing platform	9
Advise on Article 7 EED transposition & implementation	4
Webinars on specific topics linked to the implementation of Article 7	6
Capacity Building workshops across countries linked to the implementation of Article 7	6
Capacity building at a national level linked to the implementation of Article 7	8
Regular updates of the reports and studies that have been produced within the ENSPOL project	9

Table 1: List of most important activities conducted by the ENSPOL consortium during the duration of ENSPOL.

The three most voted activities were: "to provide a platform for discussion and exchange of knowledge and information among stakeholders", i.e. the 3 EU Observatories meetings held along the duration of ENSPOL, and "the maintenance of the ENSPOL knowledge sharing platform" that obtained the same number of votes as "regular updates of the reports and studies that have been produced within the ENSPOL project".

Afterwards, comments on why those activities are most interesting and on how those activities could be maintained were collected.

Most partners were very interested in keeping up capacity building workshops at national as well as at EU level. Preferably, those meetings should be face-to-face meetings like the Observatories or Cross-country-Workshops. Many suggested maintaining the webinars for capacity building as they are cheaper and easier to carry out.

The survival of the knowledge sharing platform is an important topic to the participants as well. Many noted that in order to keep the platform interesting for users, new content in the form of reports and studies needs to be provided.

4 Recommendations

The EU Observatory meeting constitutes a public forum where Member State representatives can informally exchange knowledge and opinions about issues regarding the transposition of Article 7 of the Energy Efficiency Directive (EED). Offering that service, the ENSPOL program aimed at the provision of technical assistance to Member States that intend to establish new Energy Efficiency Obligation schemes (EEOs) or to improve existing EEOs and alternative measures according to the requirements of Article 7. The observatory meetings have been perceived as very helpful and supporting; thus we recommend that such meetings will be prolonged beyond the project lifetime.