Energy Saving Policies and Energy Efficiency Obligation Scheme

ENSPOL
Energy Saving Policies

Overview & General Findings of the ENSPOL project

30/8/2016, Office of the Government of the Czech Republic

Vlasis Oikonomou, EC IEE ENSPOL project coordinator

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Background

- ***Directive 2012/27/EU**, commonly referred to as the **Energy Efficiency Directive** - EED, requires each Member States (MS) to apply **energy efficiency measures** and sets several **ambitious objectives for 2020**.*
- *As prescribed in **Articles 7** and **20** of the Directive, each MS must adopt policy measures in order to set up an **Energy Efficiency Obligation scheme** (EEOs), or alternative policy measures that would deliver a certain amount of end-use energy savings over the **2014 - 2020 obligation period**.*

***According to Article 7**:*

"That target shall be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1,5 % of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2013."

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Project Overview

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- **Title:** Energy Saving Policies and Energy Efficiency Obligation Scheme
- **Co-Funded by:** Intelligent Energy Europe Programme of the European Union
- **Started:** March 2014
- **Expected Completion:** August 2016
- **Coordinator:** Joint Implementation Network
- **Contract number:** IEE/13/824/SI2.675067

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The Consortium

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JIN - Joint Implementation Network	**Netherlands**
CRES - Center for Renewable Energy Sources and Saving	**Greece**
FIRE - Italian Federation for Rational Use of Energy	**Italy**
VITO - Vlaamse Instelling voor Technologisch Onderzoek	**Belgium**
KAPE - Polish National Energy Conservation Agency	**Poland**
EST - Energy Saving Trust	**UK**
AEA - Austrian Energy Agency	**Austria**
OUCE - University of Oxford	**UK**
UPRC - University of Piraeus Research Center	**Greece**
SEI - Stockholm Environment Institute/ University of York	**UK**
ABEA - Association of Bulgarian Energy Agencies	**Bulgaria**
DEA - Danish Energy Association	**Denmark**
ADEME - French Environment and Energy Management Agency	**France**

Who we are?

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ENSPOL Objectives

- **Assess** the relative **strengths** and **weaknesses** of EEOs and alternative measures based on the existing experiences and plans of MS.
- **Complement** and **enhance** the work of **existing EU** and **MS initiatives** concerned with the implementation of Article 7 EED.
- **Improve knowledge** and **capabilities** of MS outside of the project consortium with the guidance developed when designing and implementing new schemes and/or alternative measures for implementation of Article 7.
- **Strengthen cooperation** and **facilitate dialogue** across the EU with regards to policy development and implementation relating to Article 7 EED.

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Obligations/WhC in a nutshell

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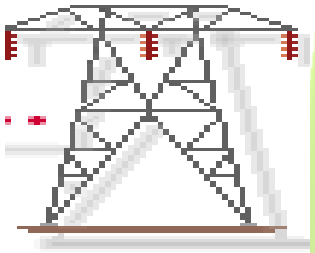

Distributors/Suppliers

Energy Saving Obligation

Issuance/Redemption

Regulator

Certificate Market

Energy Service

Electricity, N Gas, Fuel

Reduced Tariff/Bill

Risk mgt

Financial intermediaries

ESCOs

Energy Service

Αλλοι

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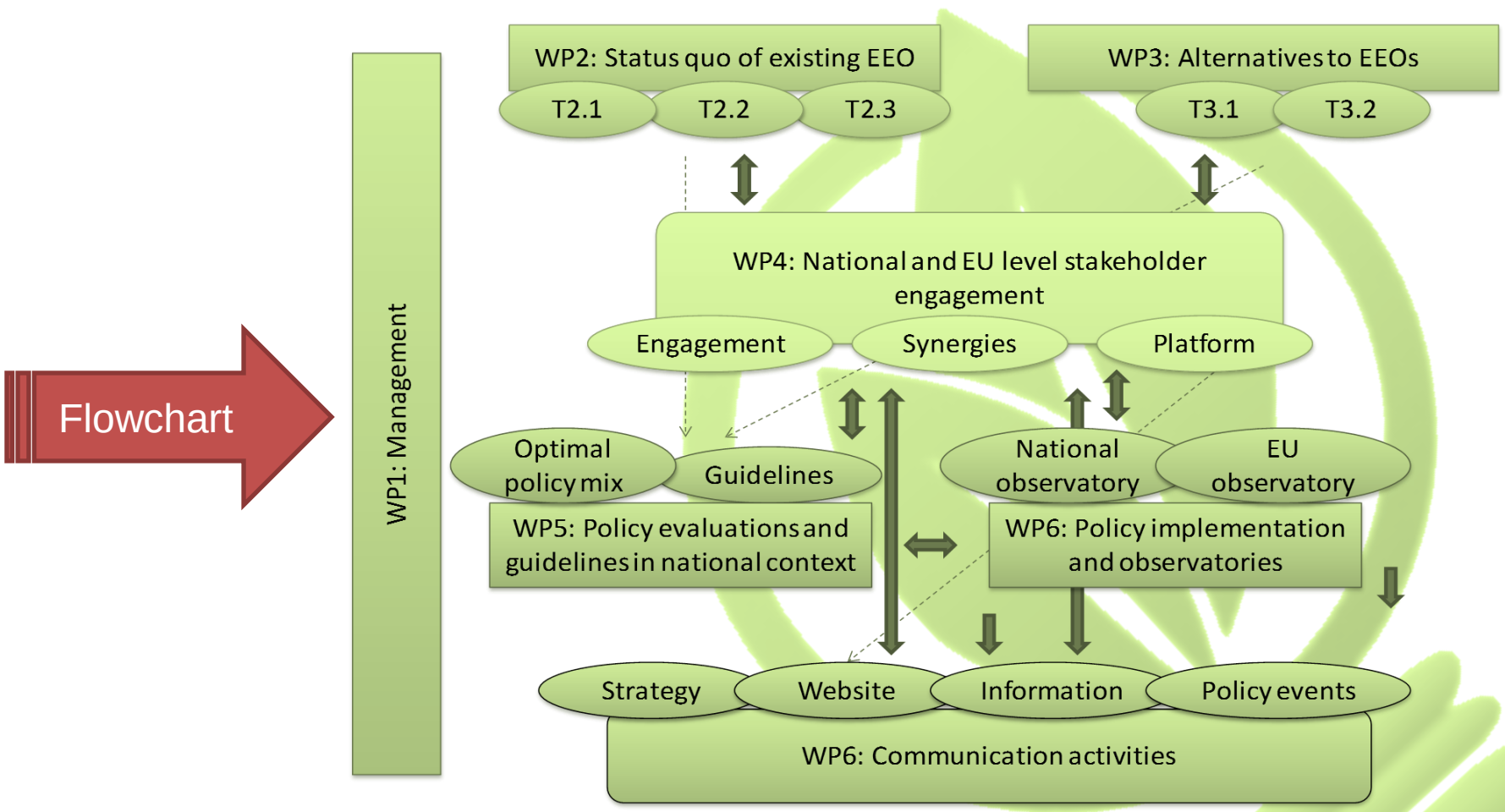
ENSPOL structure



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The Storyline of the project (1/2)

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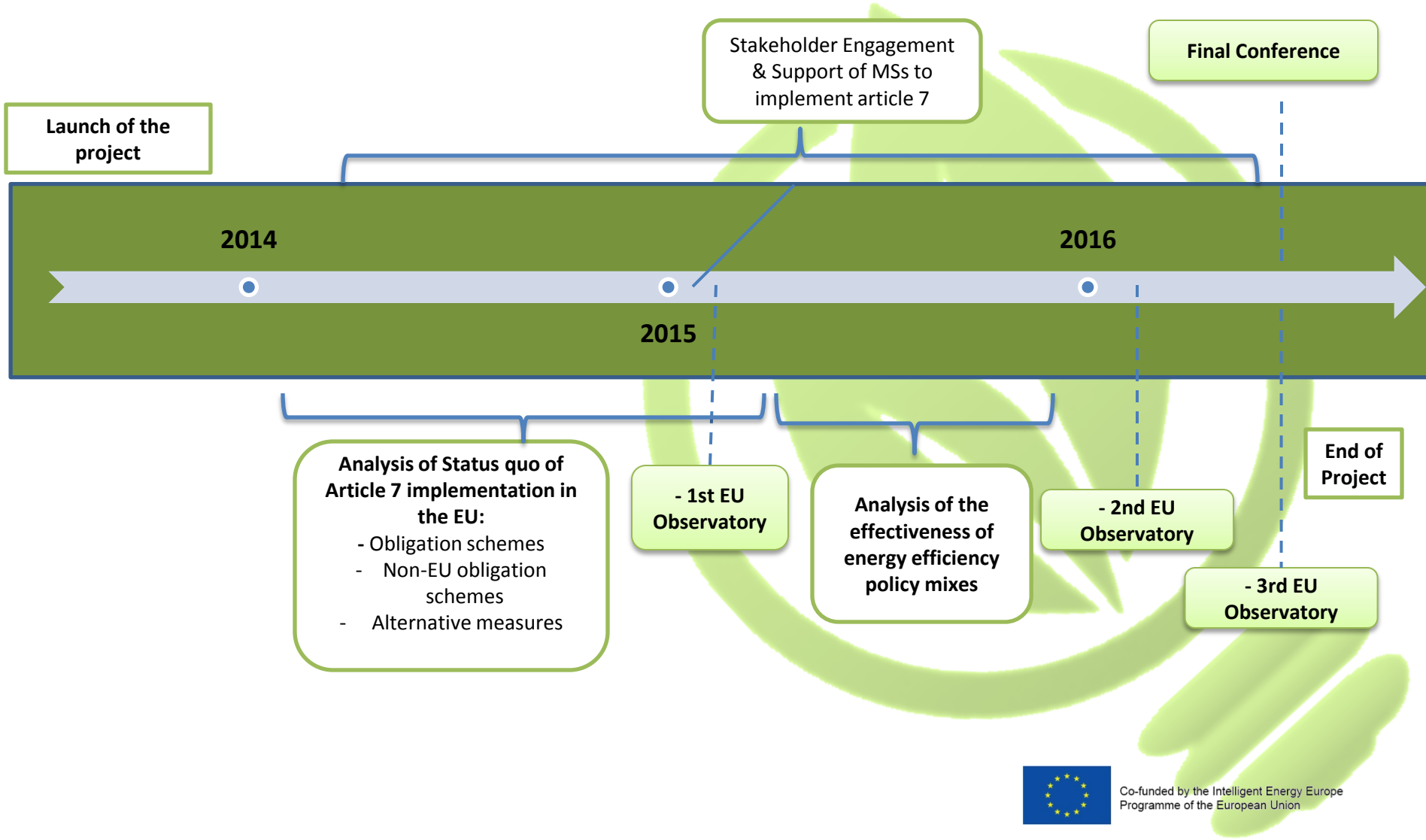

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The Storyline of the project (2/2)

Status quo of Article 7 implementation in the EU

- Existing Energy Efficiency Obligation (EEO) schemes in the EU
- Planned/New EEO schemes & Alternative measures of EU Member states
- EEO schemes outside the EU

National and EU level Stakeholder Engagement

- EU Observatories
- National Observatories, Capacity Building Workshops, National training Courses on implementation issues of Article 7.

Effectiveness of the energy efficiency policy mix

- Policy interaction analysis for each instrument type with respect to the effectiveness from the consumers' perspective

Policy guidelines at a Member State level

- Guidelines for implementing effective and efficient EEOs and alternative policies

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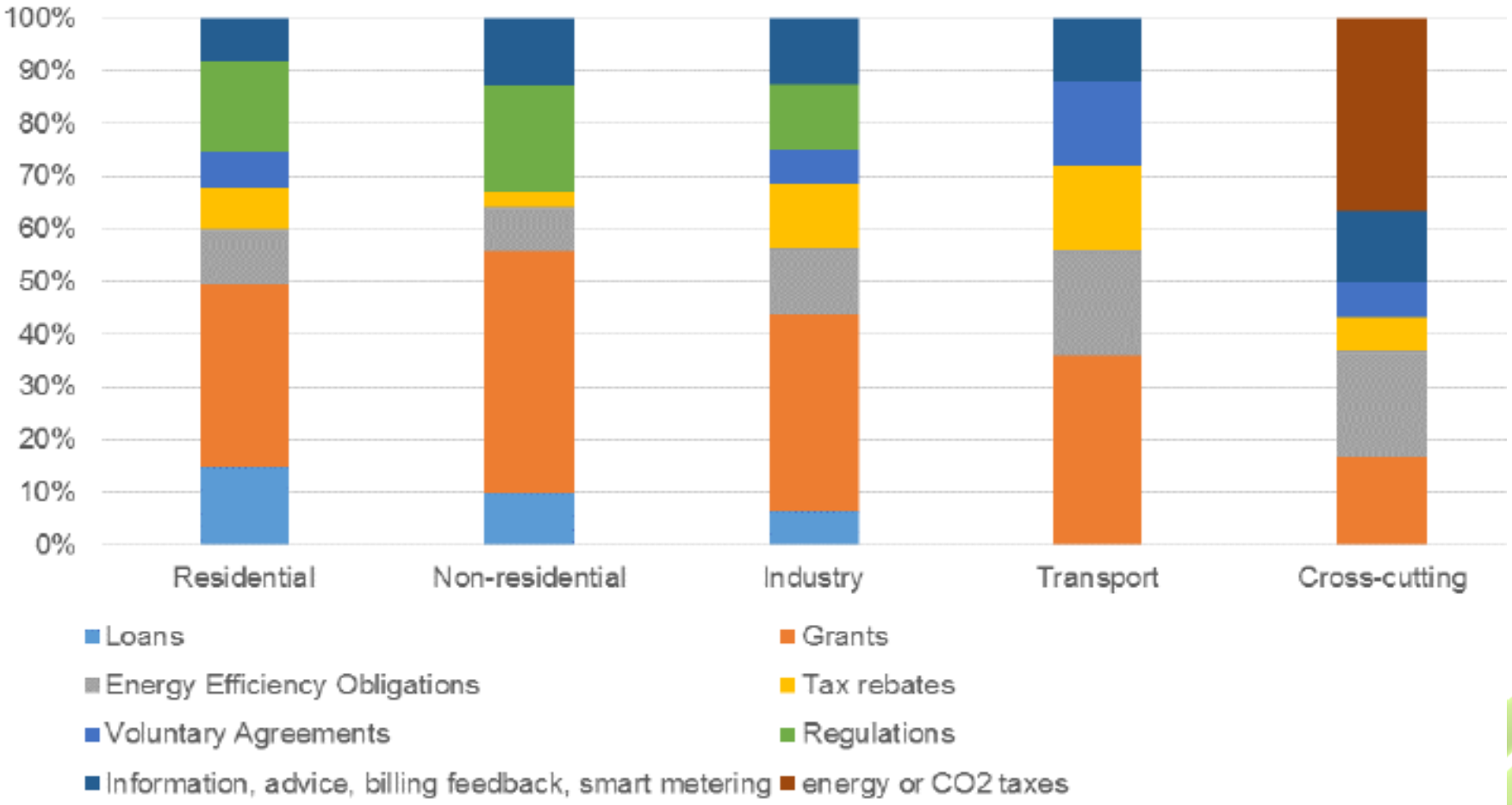
Types of EE policies per sector



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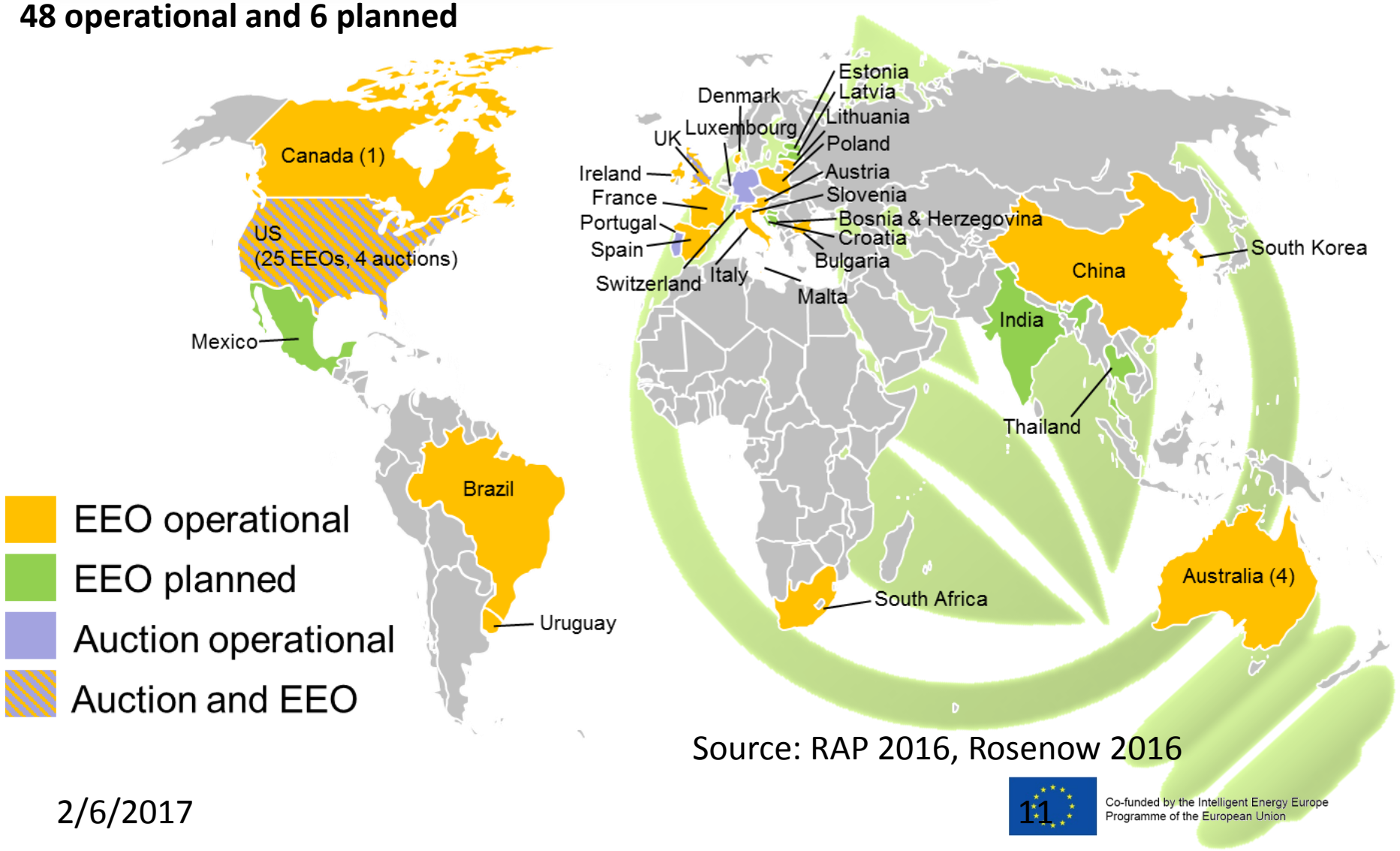
Global EEO snapshot

48 operational and 6 planned



Source: RAP 2016, Rosenow 2016

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EEOs and Art. 7: An EU Overview

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- Compliance with Article 7 requirements is proposed through either:

- **EEO scheme** (4 countries: Bulgaria, Denmark, Luxembourg, Poland)
- **Combination of EEO schemes & Alternative measures** (13 countries: Austria, Belgium, Croatia, Estonia, France, Ireland, Italy, Latvia, Lithuania, Malta, Slovenia, Spain, UK)
- **Alternative measures** (10 countries: Chez Rep., Cyprus, Finland, Germany, Greece, Netherlands, Portugal, Romania, Slovakia, Sweden).

Alternative measures

Combination (EEO schemes & Alternatives Measures)

EEO schemes

Not specified yet

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Existing EEO Schemes

- Denmark,
- Flanders (Belgium): Ended in 2012
- France,
- Italy,
- Poland,
- UK

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Existing EEOs: Lessons learned

- No two EEOs are the same!

⇒ Number and type of obliged parties (distributors or retailers; type of energy supplied), eligible sectors/projects, monitoring, fund raising mechanism, metrics for target setting…

- EEO delivered substantial improvements in energy efficiency

⇒ Now **important components of the national policy mix**.

- EEOs developed incrementally: start with low target, and growing targets over the years, allowing a "learning" period for subject under the obligation.

- Majority of savings from cost effective savings reaching large numbers of beneficiaries.

⇒ **Flexibility of EEO as a policy instrument,**

⇒ **Adaptability to national circumstances and policy priorities.**

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Existing EEOs: Challenges

- **Continue to deliver savings,**

Move focus from the buildings sector

- **Ensure a proper communication towards all potential beneficiaries**

- **Limit impacts on energy prices while removing economic risk from obligated parties.**

- **Increase the scheme efficiency:**

- **Achieve a balance between rules and procedures**

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Description of planned EEOs

- It is clearly that *"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, far more than any other type of policy measure"*.[Ricardo AEA et al., February 2015 – DG ENER]

- Member States intending to set up new EEO schemes: Austria, Bulgaria, Estonia, Hungary, Lithuania, Luxembourg, Malta, Ireland, Spain, Greece and Slovenia, the Netherlands

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Type of EEO complementary measures

Spain	Energy Efficiency National Fund - White certificates
Malta	Smart metering – Rising block tariff discouraging overuse – free audits
Lithuania	*Not available so far*
Estonia	Investment suport – Energy Efficiency National Fund – Information campaigns
Slovenia	Financing investments
Austria	Different types of incentives
Ireland	Energy Credits - grants (households) -Energy Efficiency National Fund & energy performance contracting (non-HH)
Bulgaria	*Not available so far*
Hungary	*Not available so far*
Luxembourg	Financial support – advice/audits for consumers

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Findings of new EEOs

- Actual design of the EEO scheme: limited described in MS notifications.
- EEOs can still change compared to their original concept – Status December 2014.
- Improving energy efficiency is main driver of new EEO schemes
- Residential sector is preferred sector

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Shift towards EEOs

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- Uncertainty in achieving targets with existing instruments
- New realities in energy markets, difficult to capture with existing schemes
- Lack of public finances, leaving more power to the market to self-finance

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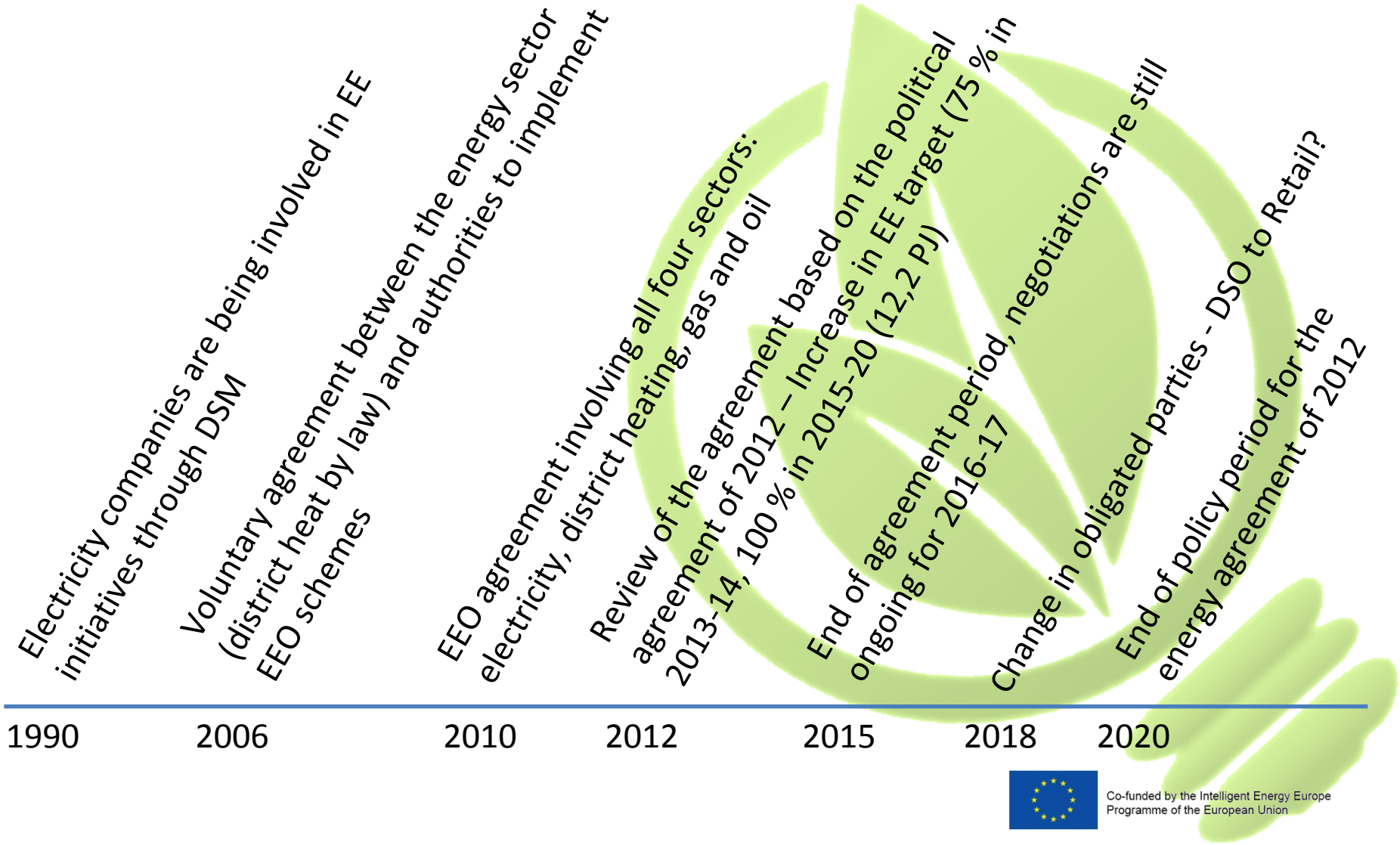
An evolution of a scheme.. Denmark



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The Netherlands

- Energy Agreement 100 PJ
- NEV 2015: not enough energy savings
- Standing Committee Energy Agreement: EEO
- Working group: BZK, Energie NL, Natuur & Milieu, ECN, Netbeheer NL, branches
- Proposal suppliers: impulse/tender
- Beginning of October: decision which policy
  - ✓Delivers around 15 PJ in savings in 2020.
  - ✓Is cost-effective.
  - ✓Is accessibele to all market parties capable of realizing energy savings.
  - ✓Keeps execution as simple as possible.

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Austria..

Building on existing initiatives

Savings target with early actions 1.125%pa and EEOs expected 0.6%

- Similar schemes in place in own country?

–Subsidy schemes

–Voluntary agreements

But uncertainty regarding financing and future savings, so EEOs as additional measure

- Experiences from other countries?
- Voluntary Agreements with retailers of electricity, gas, district heating and heating oil since 2008

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Croatia

In January 2014, the Republic of Croatia submitted a notification to the EC with regard to addressing the energy efficiency obligations referred to in Directive 2012/27/EU, and in the notification opted for addressing Article 7 of the EED by way of alternative measures. In the meantime, a consultative meeting was held with DG Energy representatives, at which it was concluded that the calculation method in accordance with Article 7 should be reconsidered and it was decided that amendments to the aforementioned notification would be made in order to benefit calculation accuracy. New calculations were made and it was established that **the set targets could not be achieved by using only alternative measures.** For that reason, Croatia subsequently opted for a combination of approaches of both alternative measures and energy efficiency obligations, and this decision was transposed into the Energy Efficiency Act which is currently in the process of being adopted.

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Bulgaria

Bulgarian notification under Art. 7, 5 December 2013 (before the adoption of the Energy Efficiency Act)

Year	Obligations excl. transport and with full use of the 25 % reduction permitted by Article 7(2) *ktoe*
2014	69,38
2015	138,75
2016	208,13
2017	277,50
2018	346,88
2019	416,25
2020	485,63
Total	1 945,2

Different threshold for the obligated parties in the Notification:

Obligated parties shall be energy traders that meet one or more of the following conditions:

1. Sales of energy to final customers in the previous calendar year that were greater than the equivalent of 75 GWh (6.45 ktoe) annually

2. A minimum of 10 members of staff in the previous year, irrespective of the amount of energy traded;

3. Annual turnover or end-of-year balance for the previous year of more than BGN 3.9 million, irrespective of the amount of energy traded.

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Greece towards EEO

- Deviation from the established article 7 target due to the implementation of innefficient alternative measures
- Lack of the appropriate public funds for financing alternative measures. This problem id expected to become more intense after 2020
- Identification of new more efficient mechanism for the promotion of the required measures

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The EU can learn from abroad…

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- Analysis of EEOs in USA, Australia, Canada, India, Brazil, China, South Korea
- Metric of saving (final energy, primary energy, peak demand, carbon etc) determines the target
- Different players, from utilities (regulated or not) to industrial producers
- No restrictions on technologies, but with a cost-effectiveness criterion
- In all schemes in average the saving is aprx 1% demand reduction annually, making it consistent with the EU
- Low hanging fruits gone.. Effect on energy prices?

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Alternatives to EEOs

Overview of alternative measures in the EU

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General points

- Almost all EU MS countries (apart from 5) have adopted alternative measures to comply with Article 7 requirements.
- Higher cost measures (e.g. whole house renovation, solid wall insulation) seem to be the main focus of alternative measures proposed in the residential sector, usually in the form of soft loans and grants.

Countries relying wholly on EEOs

- Only one country of the five planning to rely entirely on EEOs has long and successful experience of this policy (Denmark). It may be a risky strategy for the other three.
- EEOs are a proven and effective route to delivering incentives for proven, low cost, mass-market measures

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Overview of alternatives

Overview of alternative measures in the EU

COUNTRY/ Types of Alternative measures	EEOs	Energy/CO2 Taxes	Financial grants& Loans	Fiscal (tax rebate)	EE Fund	Regulation & Standards	Information, Education & Training	Vol. Agreement	Other measures	Sum (of alternatives)
Austria	(N)	(2)	(5)						(1)	8
Italy	(E)		(1)	(1)						2
France	(E)	(2)	(2)	(1)	(1)		(1)			7
Germany		(4)	(7)			(3)	(2)			16
Greece			(14)	(1)		(2)	(1)			18
Sweden		(1)								1
Spain	(N)	(1)	(6)		(1)		(2)			10
The Netherlands		(2)	(8)	(4)		(3)	(4)	(10)		30
UK	(E)	(2)	(6)			(7)		(2)		17

- ✓ Most countries have decided that alternative policies outside the remit of utilities are necessary (e.g. standards, taxation and support for infrastructure and human systems) to meet energy savings' target.
- ✓ In case of multiple alternatives measures, MS have **to ensure** that, when there are overlaps among measures, **no double counting will occur**
- ✓ EEO should perhaps address mainly nonsubsidized areas/sectors (large industries, municipalities, transport).

Policy mix

- Taxes complement other policies
- EEOs are effectively subsidies (to users)
- Subsidies and loans of different types are unlikely to be complementary
- Information programmes complement other instruments
- Standards and norms underpin other policies

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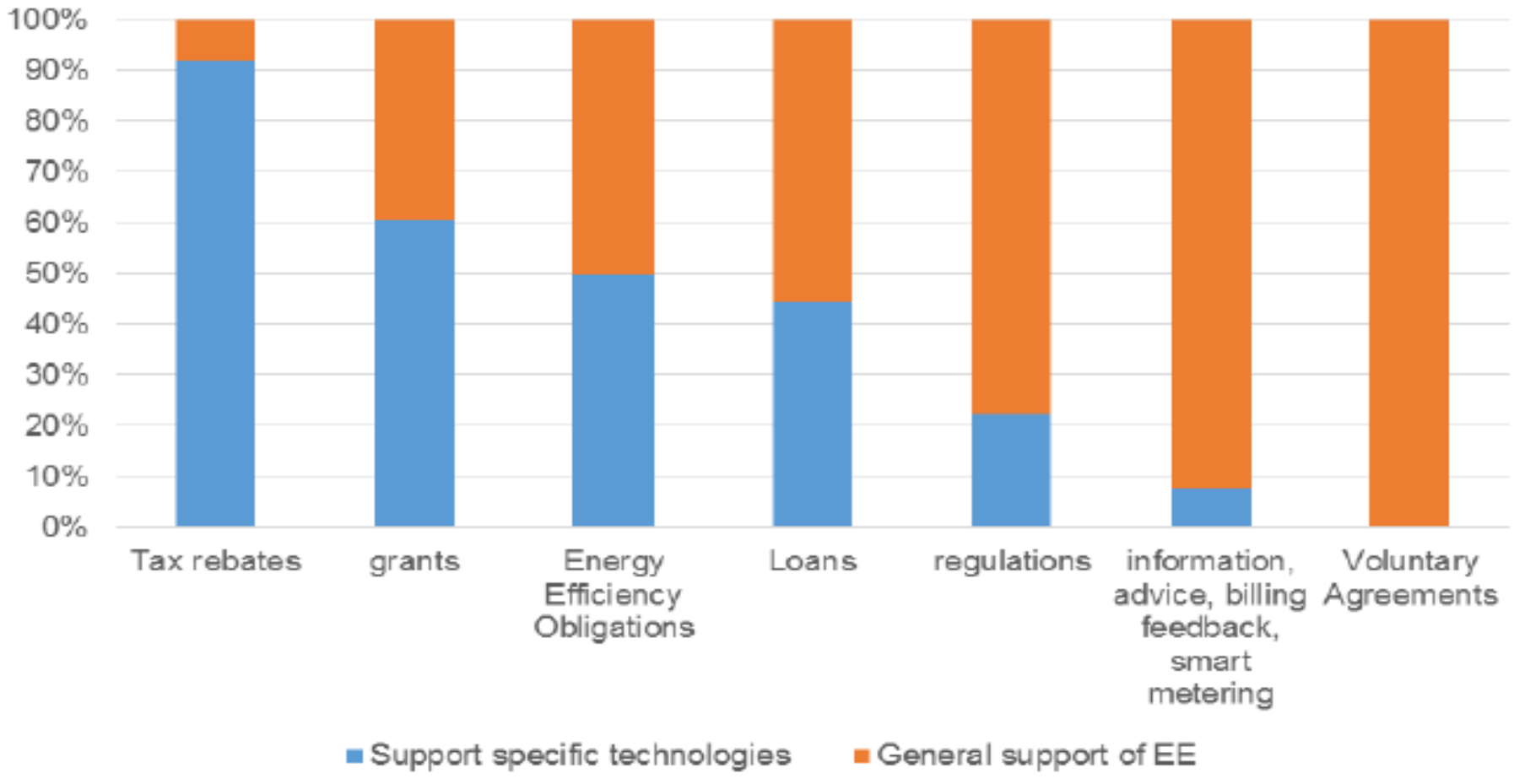
Specificity of policy instruments



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Combinations of policies

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	energy or CO_2 taxes	grants	loans	tax rebates	regulations	voluntary agreements	information, advice, billing feedback, smart metering
Energy Efficiency Obligations	2	7	2	1	1		3
energy or CO_2 taxes		1		1		2	2
grants			4	8	10	3	4
loans				2	4	1	2
tax rebates					2	5	
regulations						3	6
voluntary agreements							2

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Conclusions from Article 7 plans mixes

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- Purchase subsidies are used a lot and combined with other policies
- Regulations are combined with other instrument types
- The same applies to voluntary agreements
- Standards and norms are set at EU level and therefore do not appear
- Taxation is not used in most countries
- Article 7 design does not encourage policies that mainly support early stage innovation
- The overall policy mix is more than just Article 7 policies – it also includes EU level policies
- Effectiveness is not the only criterion
- Taxation, in particular, is limited by political acceptability
- Subsidies, including EEOs, are used more

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Policy guidelines for MS

Policy guidelines on individual MS (with or without EEOs) The basic rules are:

- Set ambitious goals, at least after a learning phase
- Adapt policies to energy market structures (and expected ones)
- Obligated partners should be either required or incentivized effectively
- Policies to focus on delivering benefits over and above those that will result from minimum standards.
- EEOs should not be used alone, but as part of policy packages that include minimum standards, support for innovation and consumer engagement

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Policy guidelines at a Member State level

Aims of guidelines (national level):

- Facilitate implementation of Energy Efficiency Policies under Article 7
- Provide lessons for new-starters of EEOs
- Provide a basis for discussion with national stakeholders in order to agree

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Policy guidelines scope

- Effectiveness

Energy Savings Calculations, Adaptation of policy, Energy Market Structure

- Efficiency

Adaptations in structure, Cost minimization

- Additionality/Materiality
- Cost Recovery

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Effectiveness

On Measurements of energy savings:

- The deemed savings can be applied mainly to homogeneous target groups (for instance household appliances, highly standardized and replicable technologies)
- Declare for each measures whether the average consumption of the market or of the installed stock has been considered for deemed savings estimates
- Use autonomous improvements (estimated in number of years and compared to market and technologies autonomous developments) and update baselines periodically

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Effectiveness

- Technology list to be technologically neutral and to avoid producing deemed savings that my favour very few technologies manufacturers - involve a broad range of stakeholders in developing the data, as it will increase the level of detail and the processes of ongoing revisions of the technologies in the list.
- Verification needs update with free-riders and rebound effects

Adaptation

- Use EEF for cost recovery options to suppliers with a low ceiling price
- EEOs not competitive to eventual ESCOs, but rather cover financing part

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DSOs?

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PROs and CONs of assigning targets to DSOs

PROs:

- Are not subject to switch by clients and then have a **stable market share**
- Targets are real obligations **legally related to their network**:
  selling part of network = transferring part of the energy saving target
- Their **revenues** are not affected by energy savings

CONs:

- In an unbundled market DSOs have **no direct relationship** with the end-users (only retailers have)
- **Antitrust regulation** prevents DSOs to work «post-meter» because this could imply unfair competition with other businesses (ESCOs, craftsmen, etc.)

- For Italy, DSOs look like a very **convenient** obliged party for an EEO scheme…
- …but in fact, most of the time, they only play a **financial role** and have nothing to do with energy efficiency measures.

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Why Retailers?

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UK scheme

Minimize costs

Allow flexibility

Delivery through third parties

Carry over costs to energy bills

Measures delivered to domestic premises

Pre-existing relationship (‘route to market’)

Familiar demographic to target

Generators on previous scheme struggled

French scheme

Direct contact with all final consumers

They already offered energy services to their customers and are legitimate to do so

Because making them switch from an energy supply business model to an energy service supply model is the way forward

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Thresholds of obligations

UK: 250,000 customers and supply 2000 GWh gas / 400 GWh electricity

Denmark: Grid and distribution companies for electricity, gas, district heating and oil

France: 400 GWh electricity, gas, 100GWh heating LPG, 500 m3 domestic heating oil, 7,000 tonnes of autogas, 7,000 m3 automotive fuel annually (Gas/diesel)

Italy: All DSOs with > 50,000 clients (before it was with 100,000 clients)

Poland: All suppliers (electricity, natural gas)

Austria: Retailers >25GWh sales (electricity, natural gas, biomass, coal, mineral oil, district heating, transport fuels)

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Efficiency

Adaptations

- Start with modest levels of savings, increasing in ambition level over time, learning from early phases and re-designing the EEOS to be more efficient and effective
- Trial period with low savings targets, so that obligated parties can get used to the target idea
- Since there are no steps for shortening the learning period in most countries starting with such schemes, EEOs should act as supportive instrument to target delivery

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Efficiency

On costs

- majority of savings will originate from low cost energy measures in the residential sector, no retrofitting
- Opening the scope (as for instance Industry for Denmark, or fuel suppliers in France) can help achieving a more ambitious objective
- introducing tools and incentives to support third party financing, among which there is the guaranteed fund introduced in the transposition of the EED directive
- Address fuel poverty via the EEF

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Additionality/Materiality

Additionality

“Only savings that go beyond the minimum requirements originating from EU legislation can count.”

“Only if the nationally established levels are more ambitious than those required at EU level can the savings above the minimum level be counted.”

Materiality

“the activities of the obligated, participating or entrusted party must be demonstrably material to the achievement of the claimed savings".

“The term 'material' means that the party in question must have contributed to the realization of the specific individual action in question, and that the subsidy or involvement of the obligated, participating or entrusted party must not have had what is clearly only a minimal effect in the end user’s decision to undertake the energy efficiency investment. The term 'demonstrably‘ means that the Member State must be able to show that this is so.”

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Additionality/Materiality

- Different interpretations, no real blueprint at this stage until the recast EED
- Avoid as much as possible overlapping instruments in terms of sector targeting
- Ex-post combined with ex-ante measurements (for free-riders) to be able to demonstrate materiality
- Most of the issues are related to the *Energy Performance of Buildings Directive (EPBD).* The recast EPBD requires MS to establish a cost optimal methodology for new buildings and for refurbishments of existing buildings. Therefore, providing a description of how MS take the cost optimal methodology into account is important.
- Mixture of instruments is often used to realize savings in the building sector. Which measures should be allocated to article 7, which to the EPBD?
- Major challenge within EU is the energy performance of existing buildings. Large part of the building stock is lagging behind the EPBD minimum performance criteria. Are instruments which focus on removing barriers (eg. Split incentives house owner vs tenant) not additional?

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Additionality in France

⇒ Only savings that **go beyond what is legally required** at the European and/or national level can be taken into account

⇒ *Energy saving certificates (ESC) cannot be attributed for operations:*

⇒ implemented to comply with a regulation (ie: thermal regulations)

⇒ Already accounted for/promoted within other regulatory frames: ETS Directive, ENR Directive

⇒ Only savings that **go beyond "business as usual"** can be taken into account

⇒ *Only the more efficient technologies are promoted*

⇒ *Deemed savings used for standard operation stake into account the level of penetration of the technology*

⇒ *Only measures with an IRR over 3 years are promoted though specific operations*

ESC cannot be attributed for measures receiving financial support from ADEME

⇒ *However, possible:*

⇒ for households to get ESC and a tax credit/zero rate loan

⇒ for enterprises to get ESC and a green loan

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Materiality in France

⇒ In order to get ESC, obligated and volunteered parties must demonstrate they had an active and leading role in triggering the energy saving operation

⇒ *to minimize the risk of obligated / eligible parties taking credit for projects that would have been implemented without their incentive.*

To formalize this, the Ministry of the Environment requires all parties applying for ESCs to document and prove:

• *A direct contribution to the implementation of the energy saving measure, by raising awareness about the energy saving potential or by facilitating the measure's installation (subsidies, loans…);*

• *The said contribution was done either by them directly or by an intermediary linked to them via a formal contract; and*

• *The contribution took place prior to the measure's installation*

With every ESC application, parties must include:

⇒ *a detailed description of their contribution and*

⇒ *A declaration signed by the beneficiary attesting of their participation and to their right to the resulting ESCs.*

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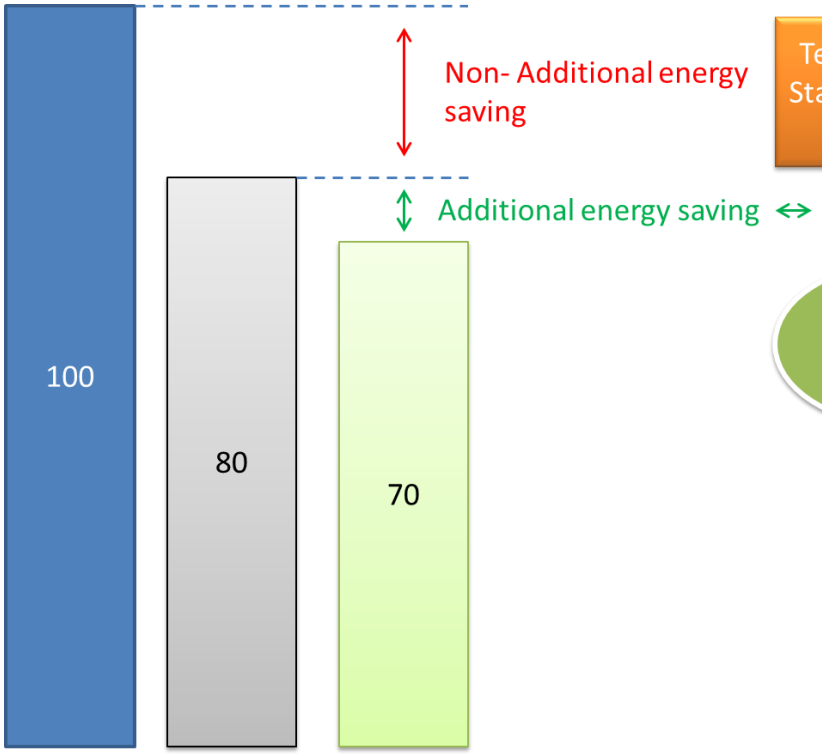
Additionality/Materiality in Italy

- In the Energy Monitoring Plans the subject has to measure the energy consumption before the project implementation and to compare it with the baseline condition to define the **additional energy savings**.
- GSE verify the eligibility of the project, the value of baseline proposed, **the algorithm to quantify the additional energy saving**



Technological evolution
Standard and regulations
Market

White Certificates

We do not incentivize non-additional energy saving (additionality contains materiality).

From 1/1/2014 WhC are recognizable only to new projects, not yet implemented

Recently Mise has abrogated some deemed and analytical project not additional anymore

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Additionality in Austria

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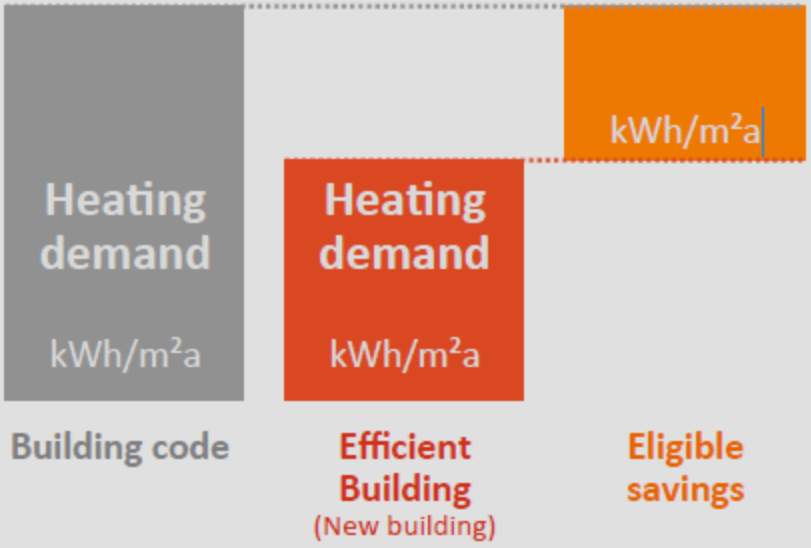
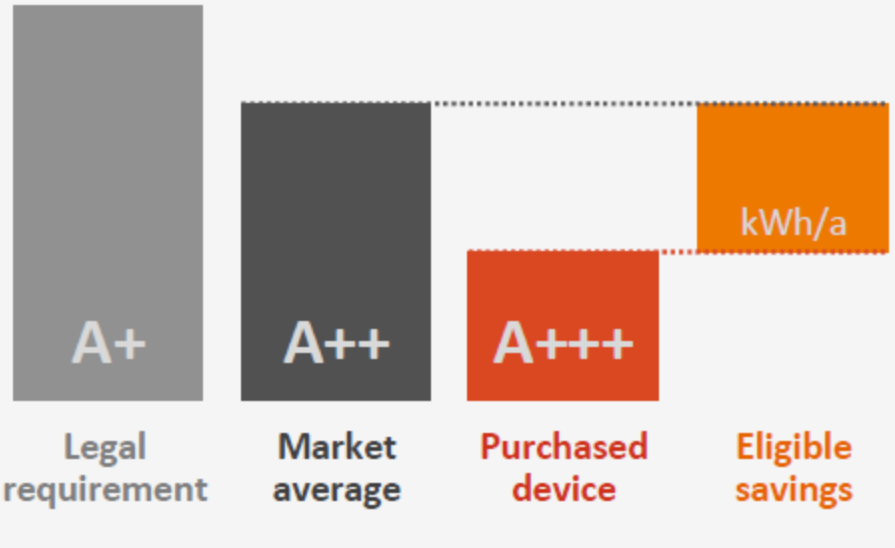
Legal requirements



Market average



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Additionality in Austria

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New installation / building

- Legal minimum requirement in place: sets the baseline.
- No legal minimum requirement in place: baseline is set at market average of new installations / buildings.

Replacement / refurbishment

- Legal minimum requirement only sets the baseline if replacement / refurbishment itself is required by law / is obligatory.
- Device had to be replaced / building had to be refurbished: Baseline is set at the market average.
- Early replacement / refurbishment: Baseline is set at the energy consumption of the old device / building.

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Additionality/Materiality methods

Make use of the various verification methods with less administrative requirements, such as in Denmark or Germany, given also the inexperience with monitoring and verification with the forthcoming EEOs that most countries face.

Make use and collaborate for the development of successful tools (such as the MultEE project platform)

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Hints on additionality

- Focus on those measures that are most robust in terms of monitoring, reporting and verification, like subsidies, voluntary agreements
- Mixture of instruments is often used to realize savings in the building sector. Double counting can be managed by assigning all savings to one particular instrument.
- In a business-as-usual scenario (without article 7), less savings than the EPBD are expected.
- Article 7 measures could generate savings that fill the EPBD compliance gap.
- Assuming that the savings of behavioural measures last only for 3 to 5 years, it is not likely that the savings still count by 2020. Therefore, use only behavioural measures, if really needed.
- Strong need for harmonized, simple accounting rules & uniform process to estimate savings from valid measures.

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Cost Recovery

For obligated energy providers in competitive energy markets, there are two possible cost recovery paths:

- *Option 1:* the costs of meeting energy savings targets are treated as a cost of doing business and energy providers adjust their prices to recover these costs; or
- *Option 2:* the costs of meeting energy savings targets are either funded by the government through direct budgetary appropriations, or price surcharges are imposed on regulated “wires and pipes” energy providers.

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Cost recovery

Country	Cost recovery
Belgium	Regulator approves cost recovery through tariffs
Canada/Ontario	Collected from all ratepayers based on energy use or contribution to peak demand
China	City utility surcharge, revenue from differential electricity prices, and other funding sources
Denmark	Cost recovery through tariffs
France	Cost recovery through tariffs is possible but has yet to be allowed
Italy	Fixed contribution to cost recovery through a tariff contribution; transport measures not eligible for cost recovery
US Minesotta	Energy efficiency cost-recovery charge determined in rate cases
US New York	System benefits charges, and funding from carbon market
US Texas	Obligated utilities recover program costs through base rates or cost recovery tariffs

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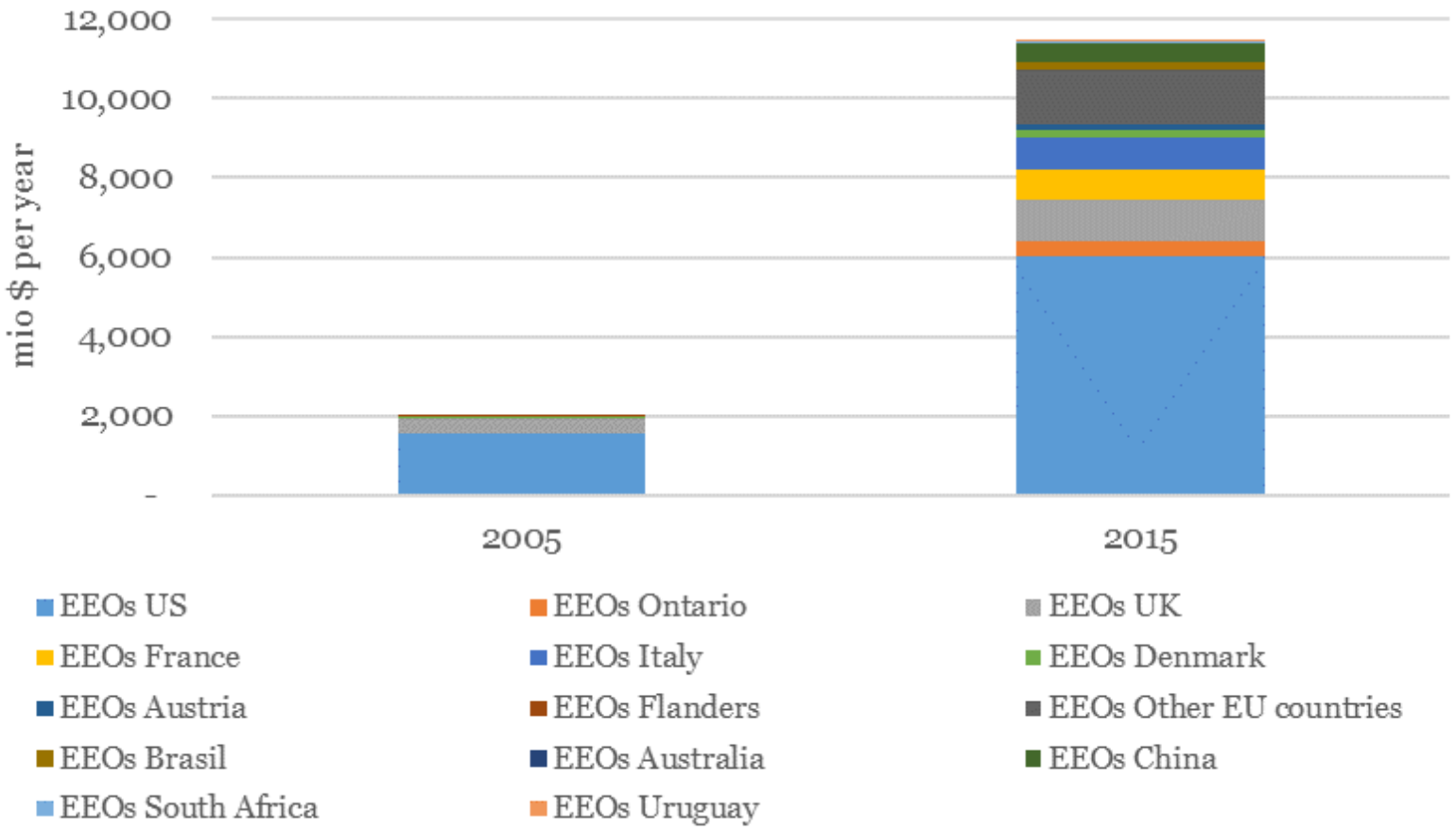
Rise of public investment through EEO



Source: Rosenow 2016

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Costs of EEOs

Programme cost:

cost to the public recovered through energy bills

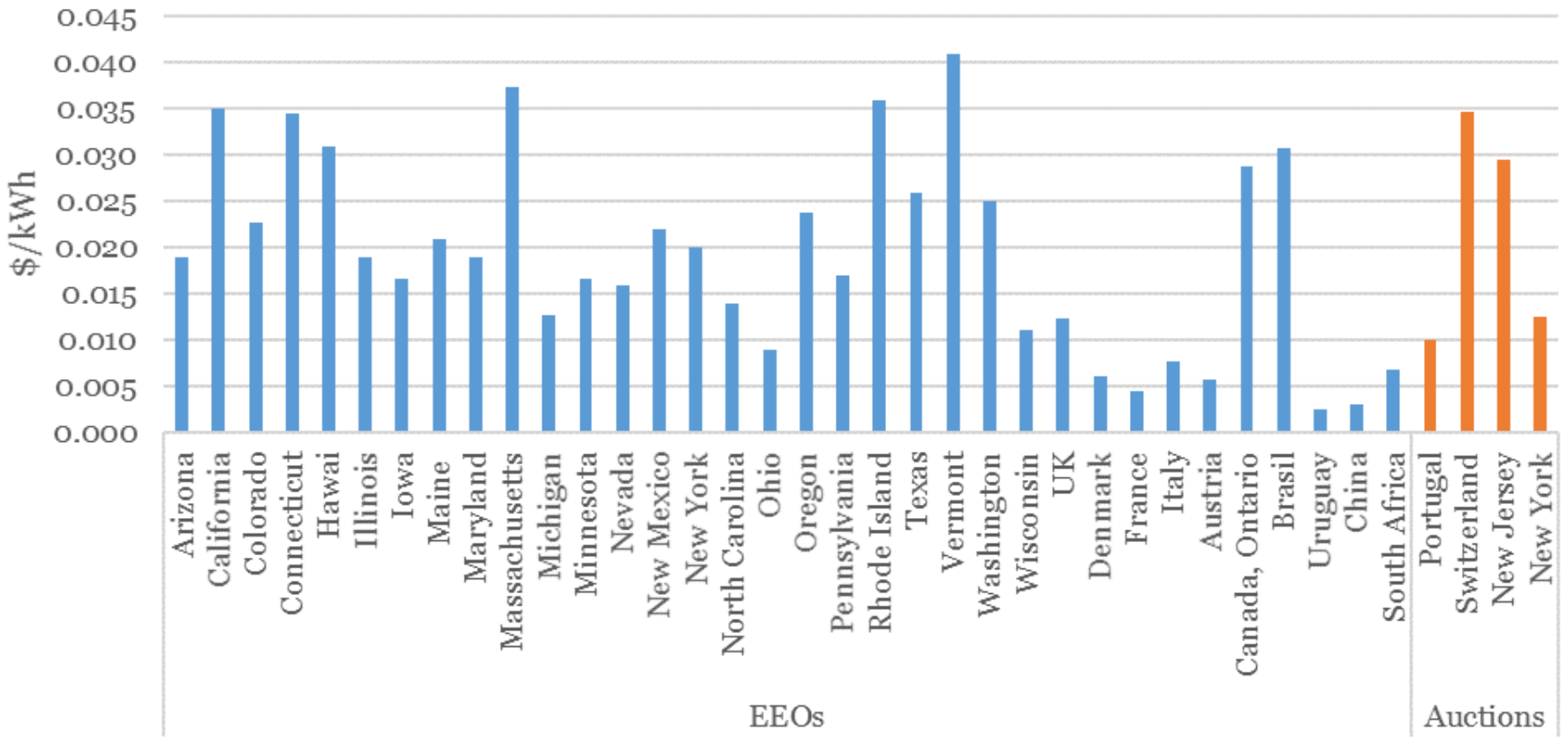
Participant cost:

contributions from beneficiaries of the programme

Administrative cost:

cost to public authorities for running the programme

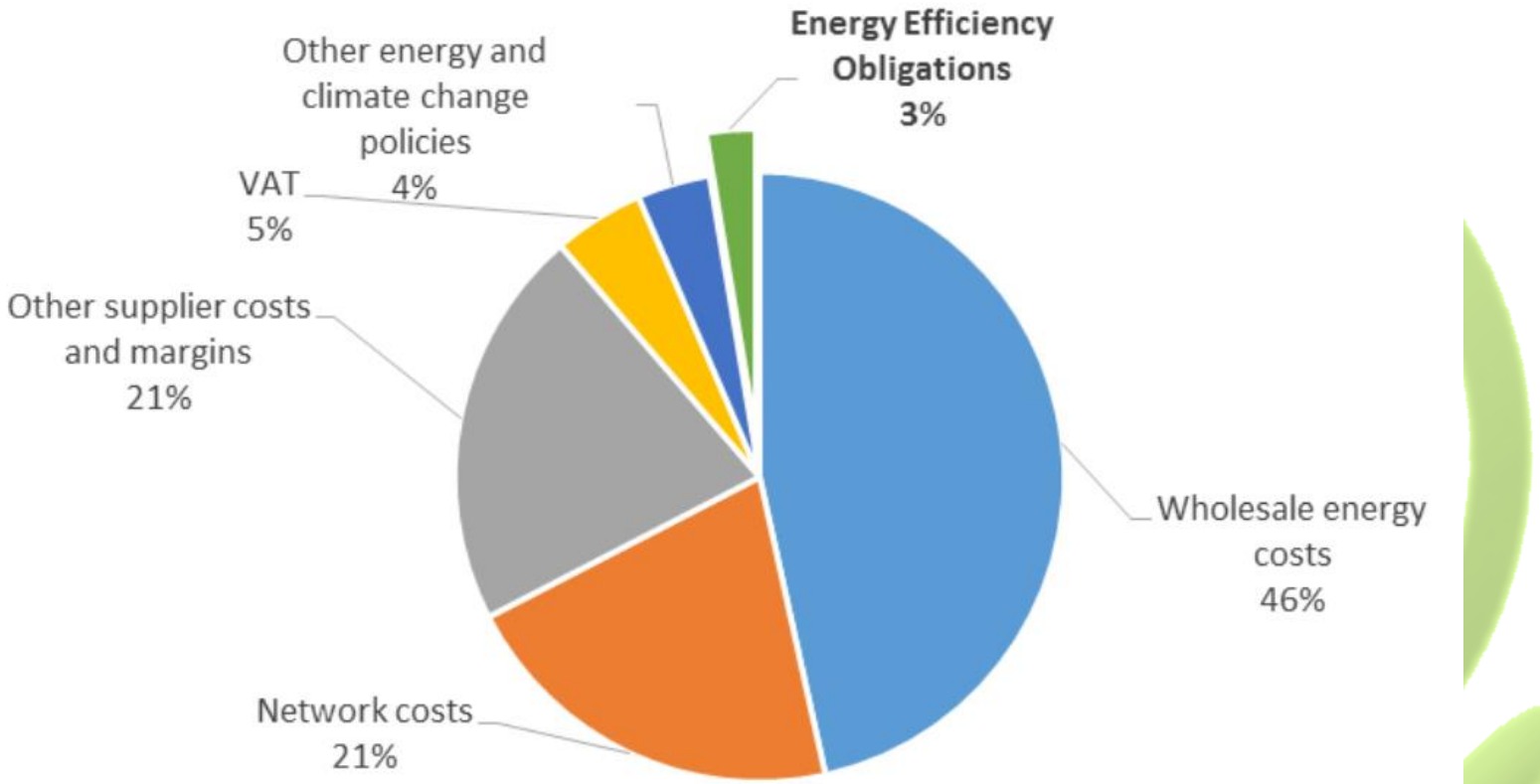
Programme costs: available data indicates that EEOs (and auctions) are highly cost-effective



Note: not corrected for different discount rates used

Sources: ACEEE (2014, 2015); RAP (2016)

Programme costs typically a small share of the total energy bill – example from the UK



Source: DECC (2014)

Participant costs: amount to about 1.5-3 times the programme costs

- **United States**: 241% of programme costs
- **United Kingdom**: 187% of programme costs in 2002 to 2005 and 144% in 2005 to 2008 (residential sector only)
- **France**: 137% of programme costs
- **Denmark**: 300% of programme costs (industry sector only)

Source: ACEEE (2014); Rohde et al. (2014)

Administrative costs: are low compared to programme costs

Country	Administrative Costs (% of overall programme costs)
UK	0.2%
Denmark	0.3%
France	0.4%
Italy	1.4%

Source: RAP (2016)

Cost of EEO schemes

Figures out of early evaluation (capital and administrative costs)..

- France: 0.4 Eurocent / kWh
- Denmark: 0.45 Eurocent / kWh
- Italy: 1.7 Eurocent / kWh
- UK: 0.7 Eurocent / kWh

(Lees 2012, Rosenow and Galvin 2013)

BELOW energy price so highly cost effective!

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Penalties

Article 13 establishes that "*Member States shall lay down the rules on penalties applicable in case of non-compliance with the national provisions adopted pursuant to Articles 7 to 11 and Article 18(3) and shall take the necessary measures to ensure that they are implemented*". The Article 7 Guidance Note F, paragraph 58 specifies that Member States "*have to lay down rules on effective, proportionate and dissuasive penalties applicable in case of non-compliance with the national provisions adopted pursuant to Articles 7 and 18(3) and must take the necessary measures to ensure that they are implemented*."

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Types of penalties

- **UK**: 10% of annual turnover *(implemented very few times)*
- **France**: 0.02 E for each missing kWh cumac (20 E/MWh cumac, so with 13.4 average lifetime around 268 E/MWh)
- **Italy**: On a case by case basis relevant to cost recovery level (if DSO fulfilles <60% of target)
- **Poland**: Max 750,000 E
- **Austria**: 0.2 E per missing kWh
- **Denmark**: No penalty but higher targets yearly for non compliance

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Final conclusions

ENSPOL Energy Saving Policies

- In most cases EEOs will only harvest low hanging fruits for a limited number of years
- Monitoring and verification is crucial to prevent double counting and to increase effectiveness and cost-effectiveness
- To implement an EEO policy effectively it is required a number of other national policies to be intensified as well, for example to enhance the budget of subsidies and/or loans for special target groups

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Policy lessons from MS

The basic rules are:

- Set ambitious goals, at least after a learning phase
- Adapt policies to energy market structures (and expected ones)
- Obligated partners should be either required or incentivized effectively
- Policies to focus on delivering benefits over and above those that will result from minimum standards.
- EEOs should not be used alone, but as part of policy packages that include minimum standards, support for innovation and consumer engagement

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About best practices..

ENSPOL
Energy Saving Policies

NO BLUEPRINT

Key Factor: Enough time for learning!!

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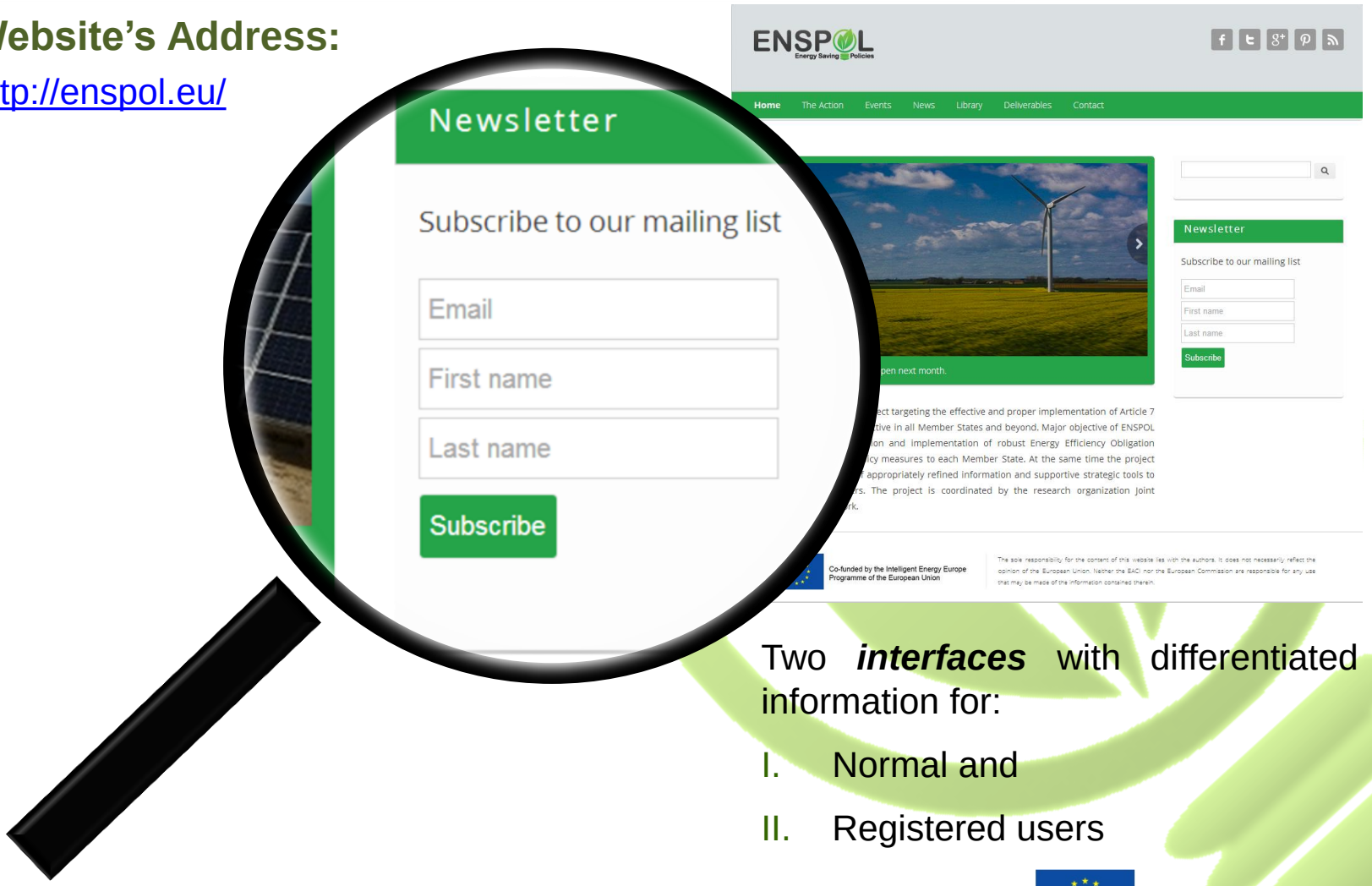
Project Website

Website's Address:

http://enspol.eu/



Two ***interfaces*** with differentiated information for:

I. Normal and

II. Registered users

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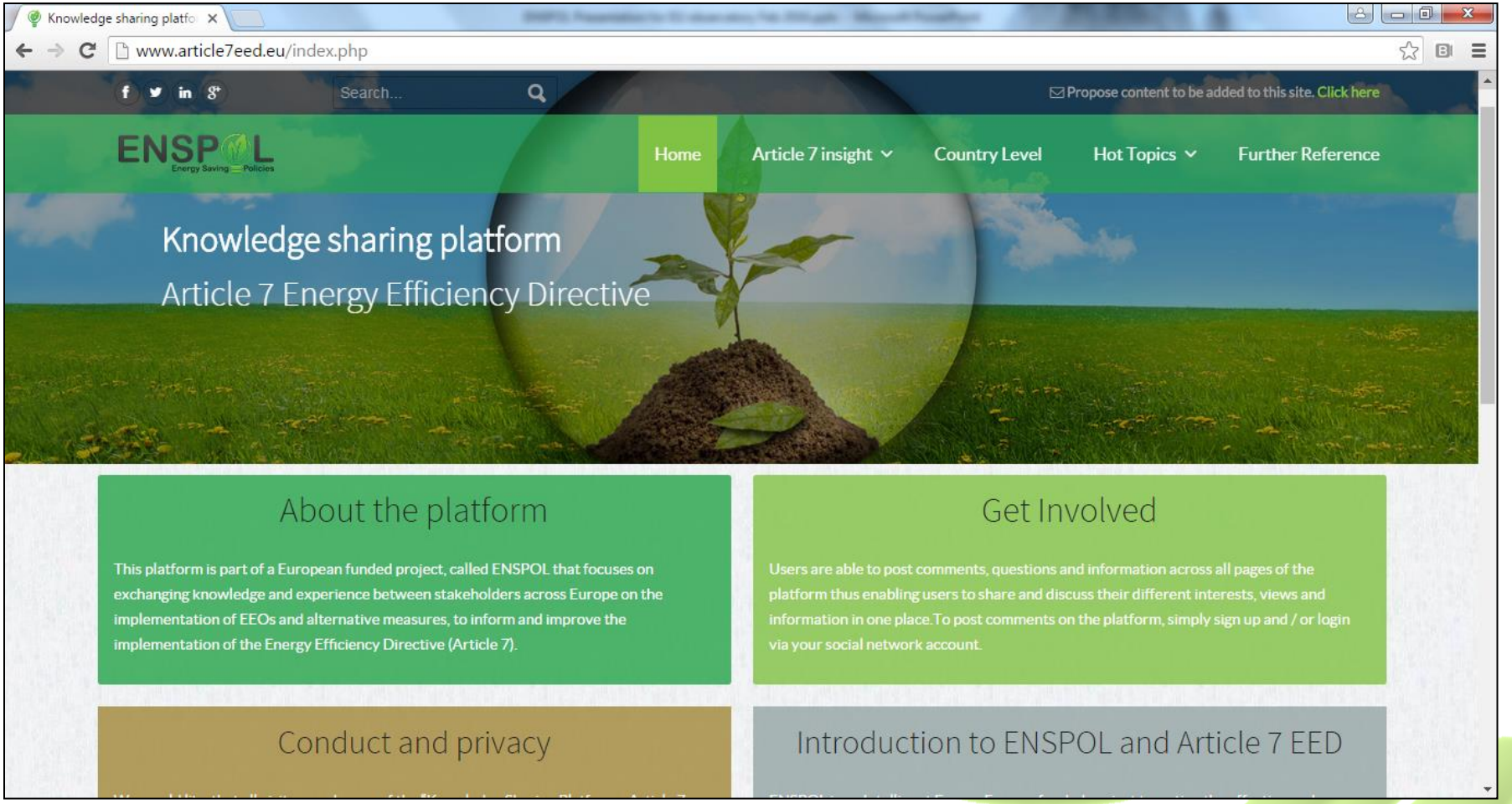
Platform with information



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ENSPOL
Energy Saving Policies

For further information, please contact us

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Thank you for your attendance

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