

# EU SUSTAINABLE ENERGY WEEK



Learning from experience and  
involving energy-citizens  
two ways of improving  
energy-related policymaking

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ENERGY WEEK  
04-08 JUNE 2018

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# Measuring successes in energy efficiency policies – indicators and policy evaluation

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# Odyssee-MURE: Best practice in Europe on EE Indicators + Policies



## ABOUT ODYSSEE

Database on energy efficiency indicators and energy consumption by end-use and their

underlying drivers in industry, transport and buildings.

[Learn more](#)



## ABOUT MURE

Database on energy efficiency policies and measures by country in industry, transport and buildings.

[Learn more](#)

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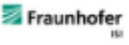






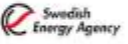




# A harmonised and collaborative effort

- Coordinator: ADEME
- Technical coordination: ENERDATA (Odyssee), Fraunhofer ISI (MURE)
- 38 Partners from EU28 + Switzerland, Norway, Serbia

## PARTNERS

Note: In 2017, three new partners from Belgium (Ministry of Economy and Energy), Serbia (Institute Nikola Tesla Belgrade), and Switzerland (University of Geneva, University of Zurich of Applied Sciences), have joined the project.

A network of 37 partners from 31 countries participate to the Odyssee-Mure project, usually national Efficiency Agencies or their representatives within the European network of energy efficiency agencies (E-ENR-2):

<b>AUSTRIA</b>  Austrian Energy Agency	<b>BELGIUM</b>  Econotec	<b>BELGIUM</b>  Ministry of Economy and Energy	<b>BULGARIA</b>  Sustainable Energy Development Agency
<b>CROATIA</b>  Energy Institute Hrvoja Pottar	<b>CYPRUS</b>  Cyprus University of Technology	<b>CZECH REPUBLIC</b>  ENVIROS	<b>DENMARK</b>  Danish Energy Agency
<b>ESTONIA</b>  Tallinn University of Technology	<b>FINLAND</b>  Motiva	<b>FRANCE</b>  ADEME	<b>FRANCE</b>  Enerdata
<b>GERMANY</b>  Fraunhofer ISI	<b>GREECE</b>  Centre For Renewable Energy Sources And Saving	<b>HUNGARY</b>  Hungarian Energy and Public Utility Regulatory Authority	<b>IRELAND</b>  Sustainable Energy Authority of Ireland
<b>LUXEMBOURG</b>  MyEnergy	<b>MALTA</b>  Energy & Water Agency	<b>NORWAY</b>  Institute for Energy Technology	<b>POLAND</b>  Central Statistical Office of Poland
<b>POLAND</b>  Polish National Energy Conservation Agency	<b>PORTUGAL</b>  ADEME	<b>ROMANIA</b>  Regulatory Authority for Energy	<b>SERBIA</b>  Institute Nikola Tesla Belgrade
<b>SLOVAKIA</b>  Slovak Innovation and Energy Agency	<b>SLOVENIA</b>  Jozef Stefan Institute	<b>SPAIN</b>  IDAE	<b>SWEDEN</b>  Swedish Energy Agency
<b>SWITZERLAND</b>  University of Geneva	<b>SWITZERLAND</b>  Zurich University of Applied Sciences	<b>THE NETHERLANDS</b>  Energy research Centre	<b>THE NETHERLANDS</b>  Ministry of Economic Affairs
<b>UNITED KINGDOM</b>  Department for Business, Energy & Industrial Strategy	<b>UNITED KINGDOM</b>  Ricardo Energy & Environment		

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# Odyssee Indicators and Facilities

## ABOUT THE ODYSSEE DATABASE

The Odyssee indicators are accessible under different data tools: the full data base, the key indicators facility, as well as five specific data facilities that focus on specific issues and provide some interpretation: market diffusion, decomposition, benchmarking, energy saving and indicator scoreboard. The access to the data base is restricted, whereas all other data tools are in public access.

## ODYSSEE DATABASE



## KEY INDICATORS



MARKET  
DIFFUSION



DECOMPOSITION



COMPARISON



ENERGY SAVING



ENERGY  
EFFICIENCY  
INDICATOR  
SCOREBOARD



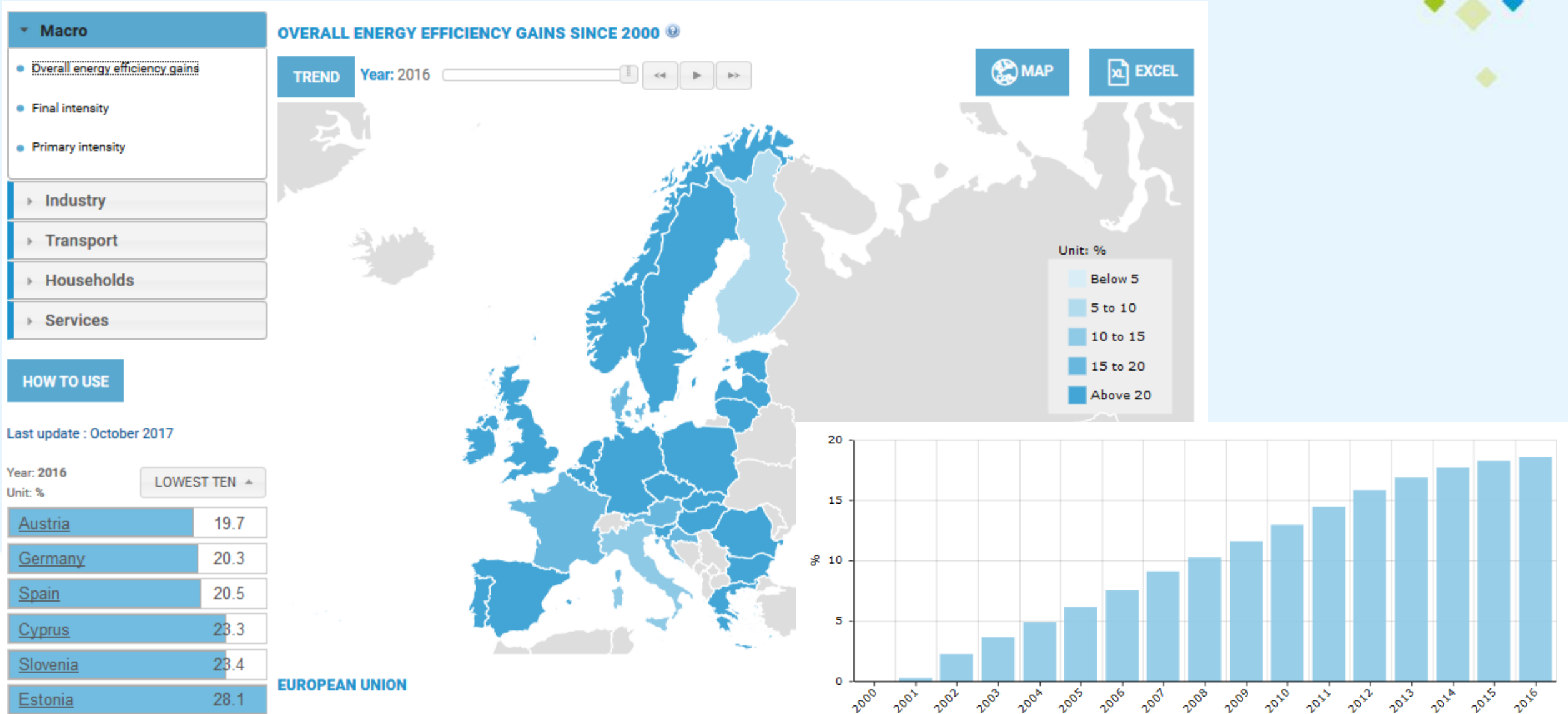
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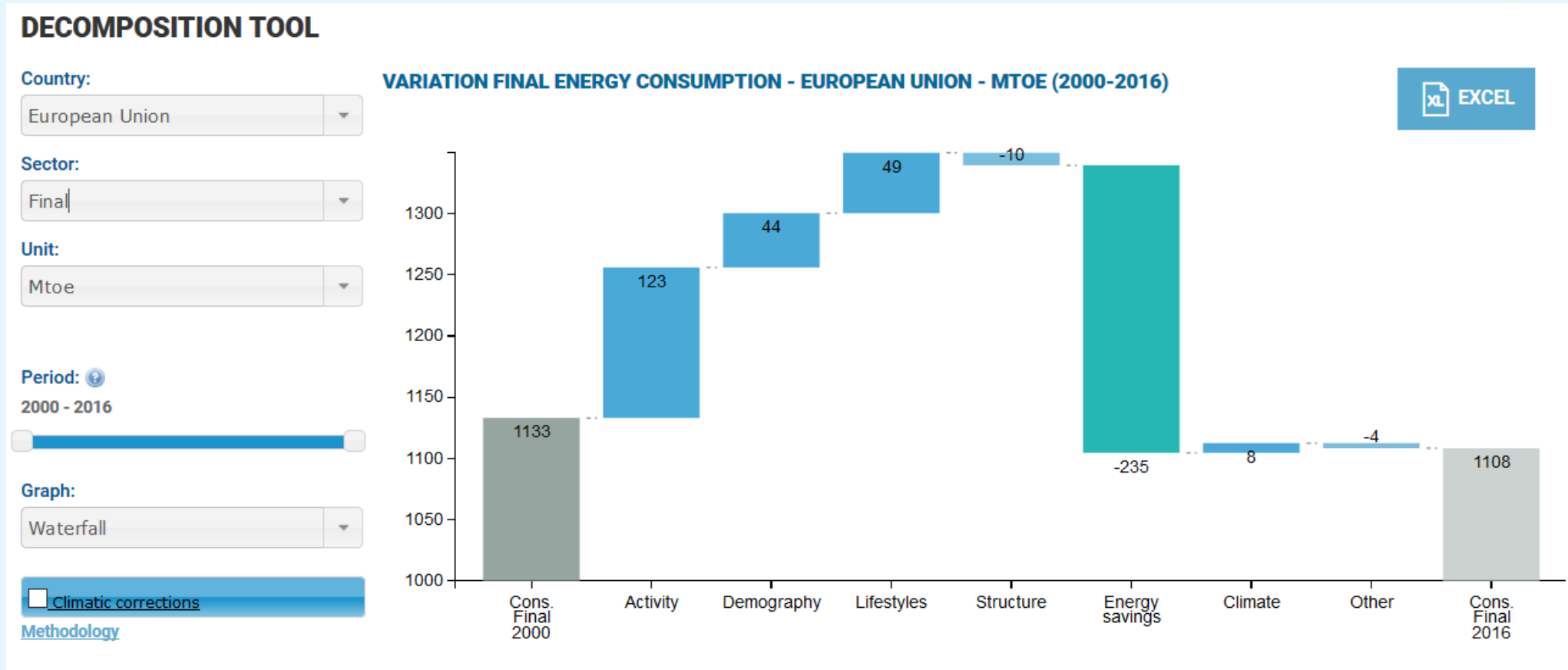
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# ODEX – « Dow Jones » of Energy Efficiency



# Odyssee Decomposition Facility



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# MURE Polices and Facilities

## ABOUT THE MURE DATABASE

MURE (Mesures d'Utilisation Rationnelle de l'Energie) provides information on energy efficiency policies and measures that have been carried out in the Member States of the European Union. The information is accessible by query in the database. The distribution of measure by type can be visualized through radar graph. Finally several facilities enable specific queries.



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# MURE – 2,400 Energy Efficiency Measures in Europe

HOUSEHOLD TERTIARY INDUSTRY TRANSPORT GENERAL CROSS-CUTTING ALL SECTORS

Search by text on measure type, title, reference

Search by text on measure description (PDF)

Mure II Database - Query - Household - Select your options and push the button Query

**Country**

- Countries
- European Union

**Measure type**

- Co-operative Measures
- Cross-cutting with sector-specific characteristics
- Financial
- Fiscal/Tariffs
- Information/Education
- Legislative/Informative
- Legislative/Normative

**Targeted end-use**

- Appliances
- Cooking
- Hot water
- Lighting
- Other targeted uses
- Space cooling
- Space heating
- Total electric cons.
- Total final cons.
- Total fuel cons.

**Measure descriptors**

- Actors
- Target audience
- Evaluation method of targeted end uses
- Multiple benefits

2016 update on October 2017

**Title of the measure:** Fiscal incentives for energy savings in the household sector - Evaluation 2017


**General description:**

The so-called "Ecofiscus" law, concerning the provision of fiscal incentives for energy efficiency interventions in the existing housing stock, has been widely welcomed by the "industry" (see ENER 2016) issued in December 2014 and revised for the year 2017. The law has substantially strengthened the tax credit scheme of the former law, and has introduced the following updated measures:

- The amount from 75% to 60% of the tax deductible amounts corresponding to the energy efficiency measures in existing buildings. As in the previous Ecofiscus law, for energy efficiency interventions, such as thermal insulation, installation of solar panels, replacement of heating and air-conditioning systems or comprehensive refurbishments. The 2017 law allows also to claim the expenses for home automation interventions, in particular related to "wall-to-wall" devices for the remote control of heating, hot water and air conditioning. The deductible sum can't exceed the threshold of 40,000 Euro per dwelling.
- The extension of the tax credit scheme to the modernisation of collective buildings (building in the direction of the study number of the construction starting from the 70% to 60% of the energy efficiency interventions carried out on the common parts of the building. The share of the 70% concerns the activities works corresponding to at least the 20% of the building shell and that of the 70% to interventions aimed at improving the overall energy and climate energy performance of the building. These measures will be valid for the expenses incurred since January 27, 2017 to December 31, 2021. In this case the deductible sum can't exceed the threshold of 40,000 Euro multiplied by the number of dwellings that compose the building.
- The possibility to transfer the fiscal incentive for interventions on building common parts on the supplier of the service as exchange (to be decided (article 106bis)).

As in the previous Ecofiscus law it is also possible to define the costs, for the purchase of measures and appliances. In this case the tax bonus is of the 70% with a limit of 10,000 Euro. The list of appliances eligible for deduction includes: radiators, radiators, stoves, air-conditioning, cooking appliances, electric stoves, electric hot water, pressure cookers, electric heating, electric radiators, electric fans, air conditioning condenser.

Finally, as in the previous similar law tax credits are maintained over 13 years, beginning with the completion of work.



2016 update on October 2017

**Report evaluation methods and results:**

**Method:**

Calculations made on the basis of the forecasted interventions.

**Results:**

ENEA estimates that during the period 2007-2014 have been saved 1.38 MTEEP/year, of this quantity about the 70% is attributable to the already implemented, the 20% to the activities of the upper critical-path and the 10% to the implementation of all trades with the construction firm (source ENEA, Annual Energy Efficiency Report 2016).

Intervention	2007	2008	2009-2014
Energy services	1000	1000	1000
Energy services	1000	1000	1000
Energy services	1000	1000	1000
Energy services	1000	1000	1000

**Measure Impact Level**

Low                      Medium                      X High

**Extension of measures:**

There is no intervention between this measure and the other ones in the household sector.

**Historical data:**

This is the first edition of the Ecofiscus law. This type of law started in 2007, with the goal of the sale of measures (credit issued as the financial of the "mobility" law, that is the software ready state building law, has been issued each year from the law. The Ecofiscus law has been widely approved since its first version, with laws trying to make it urgent. Actually, the law had a very good success rate for what concerns the interventions, being relatively low energy efficiency (around 0.50/year) and economic efficiency (0.50%). The most profitable interventions from the energy point of view, like those on the ground work, or the other have in fact concerned only the 0.7% of the total area (data from the



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# The Odyssee-MURE Combined Scoreboard



## ODYSSEE-MURE SCOREBOARD ON ENERGY EFFICIENCY INDICATORS AND POLICIES

View:

Overview

Sector:

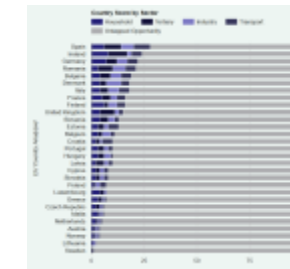
Overall

Score:

Combined

The objective of the ODYSSEE-MURE scoreboard on energy efficiency indicators and policies is to score EU countries on different energy efficiency criteria:

- the energy efficiency level,
- the energy efficiency progress,
- the energy efficiency policies,
- a combination of all these criteria.



For each criterium each country is scored with a score between 0 and 1 on the basis of a variety of indicators that are explained in more detail in two complementary scoreboards: the first one on energy efficiency progress and level ([ODYSSEE Scoreboard for Indicators](#)) and the other one on policies ([MURE Scoreboard for Energy Efficiency Policies](#)).

[Methodology](#)

SUMMARY

The scoreboard can be viewed, either by criterion or by country; in the later case, the scoring is detailed for each country by criterion

### OVERALL: OVERALL ENERGY EFFICIENCY SCORE

The overall energy efficiency score is obtained as an average of the three scores obtained for “energy efficiency level”, “energy efficiency progress” and “energy efficiency policies” (i.e. one third weighting).

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# Thank you

## ODYSSEE-MURE

[www.odyssee-mure.eu](http://www.odyssee-mure.eu)



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# The multiple benefits of energy efficiency policies

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# Looking back & forward

## ODYSSEE-MURE



ex-post analysis  
top-down/bottom-up  
assessment of current policies



Forward-looking: 2030  
Based on EEI actions (bottom-up)  
EE beyond existing policies

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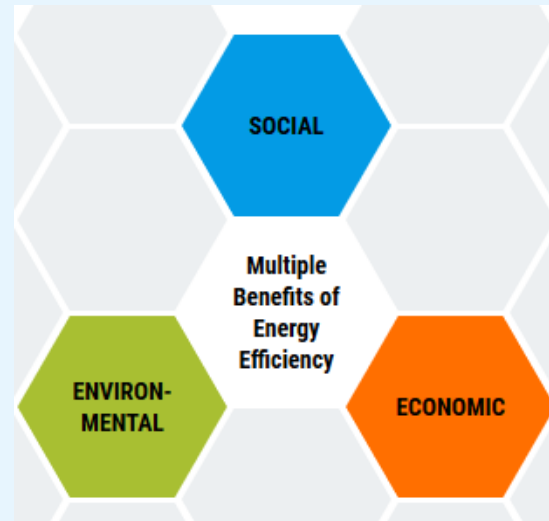
# Support to Policy Makers in Monitoring Multiple Benefits

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# Odyssee-MURE MB:EE Facility



→ <http://bfig1.de/mbee/>

- Objective: help policy makers to monitor MB:EE in a comprehensive way
- Three groups of MB-EEs : environmental, economic, and social–related

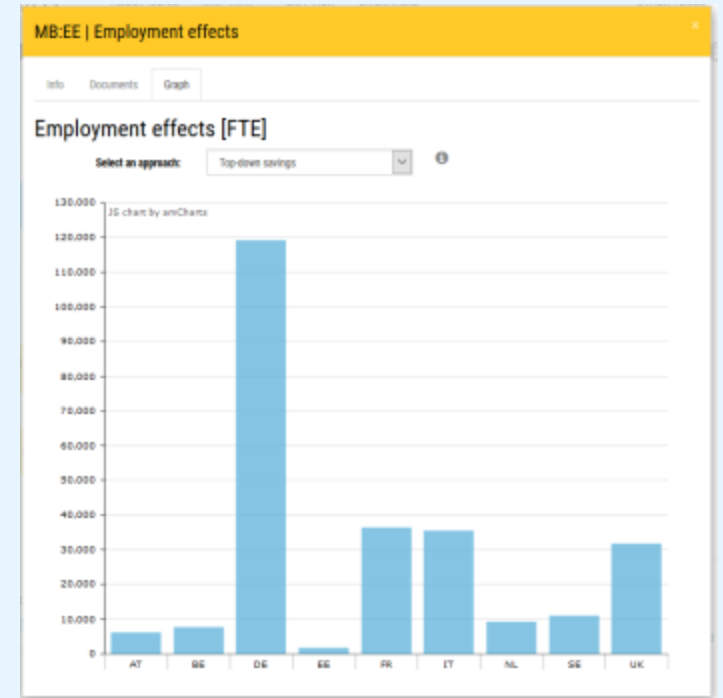
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# Multiple Benefits of Energy Efficiency



## Odyssee-MURE MB:EE Facility



- indicator-based approach to measure MB-EE



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Higher EE targets pay off!

Results from the Multiple Benefits project COMBI

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# Quantification & monetization of MI

- By EU member state & 21 EEI actions
- Extended Cost-Benefit analysis
- Funded by H2020 EE12 (GA 649724, approx 1M€), March 2015–May 2018

## Air pollution

air pollutants  
health from air  
pollution  
eco-system

## Resources

material footprint  
abiotic/biotic  
energy/non-energy  
unused extraction

## Social welfare

energy poverty/health  
productivity

## Macro economy

employment/ GDP  
public budget  
Fossil fuel/ETS prices  
Terms of Trade

## Energy system

energy system costs  
energy security

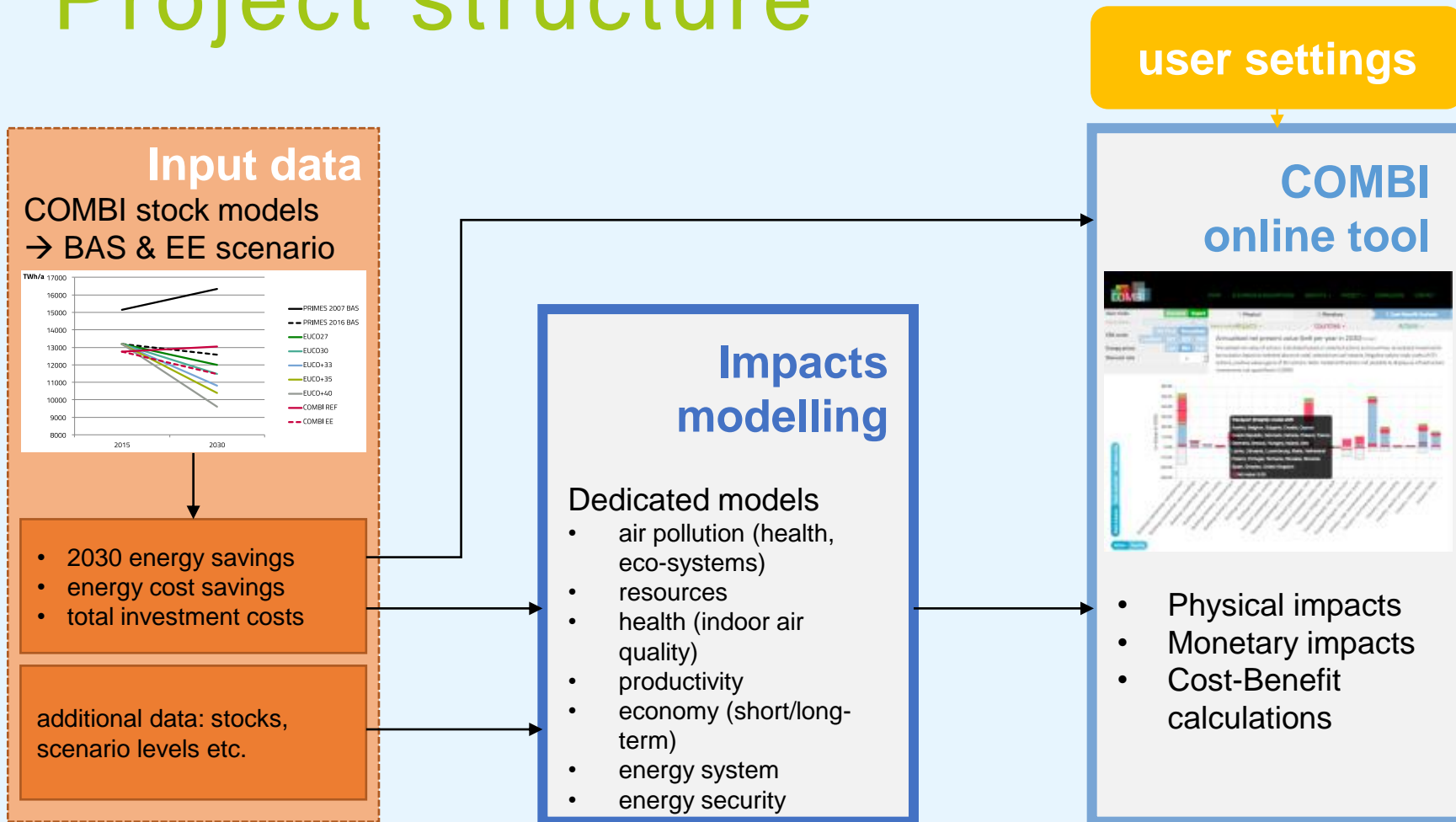
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# Project structure



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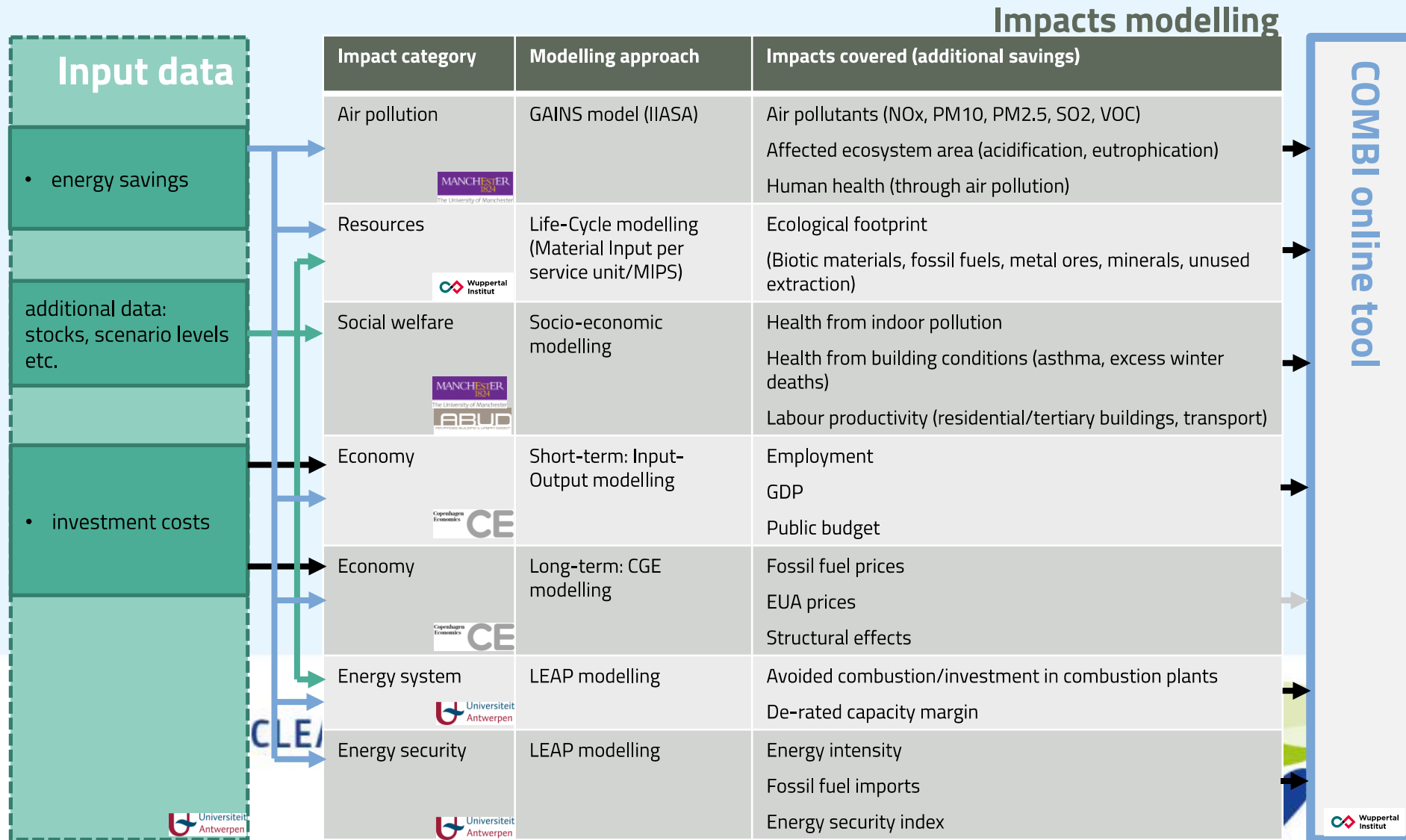
# Input data: 21 EEI actions

## Difference to PRIMES/EED-IA:

- disaggregated stock analysis model → bottom-up development of scenarios
- not complete energy system (excl. agric., only selected EEI actions, excl. supply sector)
- Multiple data sources: mostly EU stats & projects (ENTRANZE, PRIMES, FHG ISI, ECOFYS)

Buildings (residential & tertiary)	Transport	Industry
<p><b>Actions 1</b> (residential) <b>and 5</b> (non-residential): <b>refurbishment</b> of building shell + replacement of building systems (space heating, cooling and ventilation)</p> <p><b>Actions 2</b> (residential) <b>and 6</b> (non-residential): energy efficiency improvements of <b>new dwellings</b> or buildings, focusing on Passive House standards;</p> <p><b>Actions 3</b> (residential) <b>and 7</b> (non-residential): energy efficiency improvements for <b>lighting</b> systems;</p> <p><b>Actions 4</b> (residential) <b>and 8</b> (non-residential): energy efficiency improvements of <b>cold appliances</b> (residential) or product cooling (non-residential).</p>	<p><b>Actions 9 and 12:</b> <b>modal shifts</b> for both passenger and freight transport;</p> <p><b>Action 10:</b> energy efficiency improvements of motorized <b>two-wheelers</b>;</p> <p><b>Action 11:</b> energy efficiency improvements of passenger <b>cars</b>;</p> <p><b>Action 13:</b> energy efficiency improvements of <b>public road</b> transport, i.e. bus or coach;</p> <p><b>Action 14:</b> efficiency improvements of <b>light duty trucks</b> (LDTs);</p> <p><b>Action 15:</b> efficiency improvements of <b>heavy duty trucks</b> (HDTs).</p>	<p><b>Action 16:</b> energy efficiency improvements of <b>high temperature process heating</b> (furnaces, ovens, kilns, dryers, ...)</p> <p><b>Action 17:</b> energy efficiency improvements of <b>low and medium temperature process heating</b> (boilers and steam systems in general);</p> <p><b>Action 18:</b> energy efficiency improvements of industrial <b>process cooling and refrigeration</b>;</p> <p><b>Action 19:</b> energy efficiency improvements of <b>process specific use of electricity</b>, mainly electrochemical processes in non ferrous metals and chemicals;</p> <p><b>Action 20:</b> energy efficiency improvements of <b>motor drive systems</b>, including pumps, compressed air for utilities, compressed gas/air systems for processes; fans and blowers, and other motor applications;</p> <p><b>Action 21:</b> energy efficiency improvements of heating, ventilation and air-conditioning (<b>HVAC</b>) systems in industrial buildings.</p>
<p>→ <b>Outputs</b></p> <ul style="list-style-type: none"><li>• 2030 energy savings (EU total: 1647 TWh/yr)</li><li>• energy cost savings (EU total: 131 bn€/yr)</li><li>• total investment costs (EU total: 95 bn€ annualised)</li><li>• additional data: stocks, scenario levels etc.</li></ul>		

# Multiple impact modelling



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# Key results

Pursuing a more ambitious EE policy that leads to achieving the 33% target (instead of 27% target) will lead to **at least** (selected impacts)

Impact	Value per year (2030)
Avoided health problems	260k DALYs, 17k deaths
Additional labour productivity	39mn workdays
Lower material footprint	845 Mt resource savings (production phase not accounted in most cases)
Avoided investment in electricity generation	10bn€
Lower fossil fuel import costs	60bn€
additional GDP (in case of negative output gap)	Up to 160bn€ (0.8% of 2015 GDP)
public budget effect (in case of negative output gap)	Up to 85bn€
additional employment (in case of negative output gap)	Up to 2.3mn person-years

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# All results online



→ [combi-project.eu/tool/](https://combi-project.eu/tool/)

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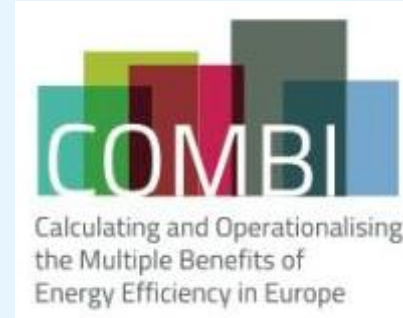
# Thank you

## ODYSSEE-MURE

[www.odyssee-mure.eu](http://www.odyssee-mure.eu)

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# How to better design energy efficiency policies

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# Evaluations = opportunities for improving policies

<https://epatee.eu/>

Objective: providing **support for enhanced evaluation practices**

Concept:

Enhanced evaluation practices

Increased effectiveness of policies

More energy savings and GHG reductions

Short term impacts

Long term impacts

10 partners  
8 EU countries

*coordination*

  
**AEA**  
Österreichische Energieagentur - Austrian Energy Agency

  
**ADEME**  
Agence de l'environnement et de la maîtrise de l'énergie

  
**FRAUNHOFER**  
ISI Fraunhofer Institut für System- und Innovationsforschung

  
**IEECP**  
Institute for European Energy & Climate Policy

  
**ATEE**  
Association Technique Energie Environnement

  
**ECN**  
Energy research Centre of the Netherlands

  
**LEI**  
Lithuanian Energy Institute

  
**MOTIVA OY**  
Finland

  
**EIHP**  
Energy Institute Hrvoje Pozar

  
**FIRE**  
Italian Federation for Energy Efficiency

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**EPATEE**



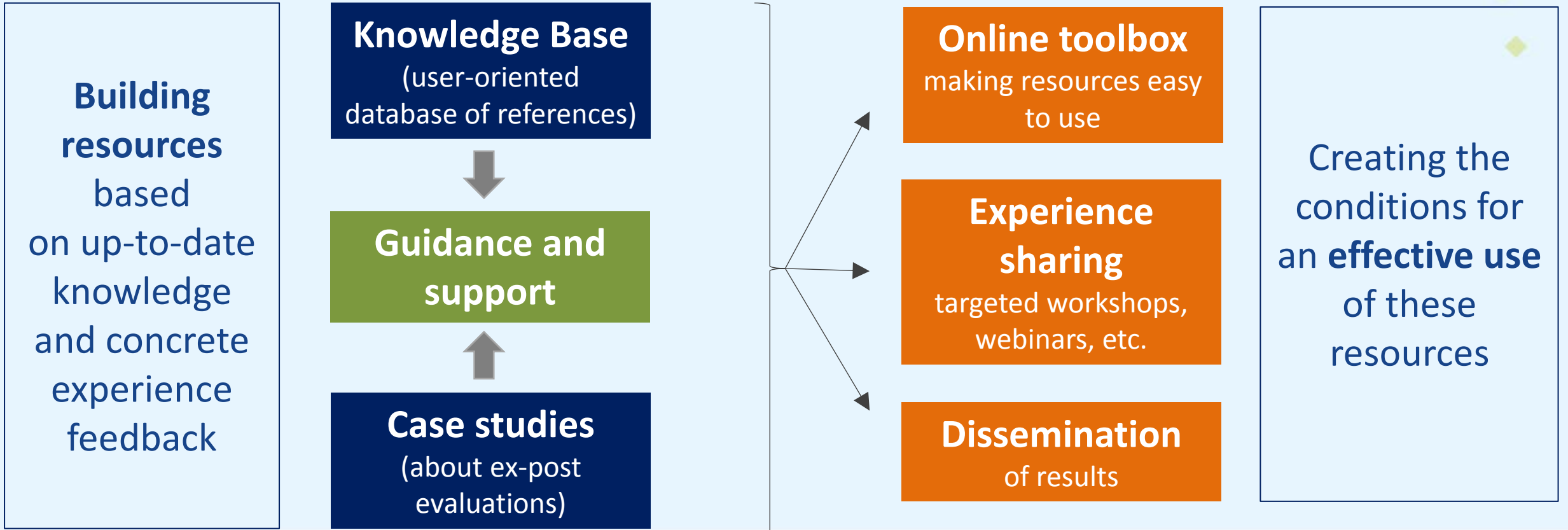
This project has received funding from the European Union's Horizon 2020 Research and innovation programme under grant agreement No 746265.



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## Main outputs



## EPATEE's Knowledge Base:

- **170 entries** (evaluation reports, studies, papers, guidebooks)
- Focus on **ex-post** evaluation of **EE policies**
- Multi-criteria search

<https://epatee.eu/main-results>

### Search by Categories

Year of publication: 1984  2017

Language:

Study type:

Type of policy instrument:

Sector:

Geographical scope:

ADVANCED SEARCH

Evaluation type:

Objective of evaluation:

Data Collection:

Calculation method:  ⓘ

Baseline / counterfactual:

Savings data presentation:

Normalisation factors:

Effect adjustments:

Cost data:

Uncertainty analysis:

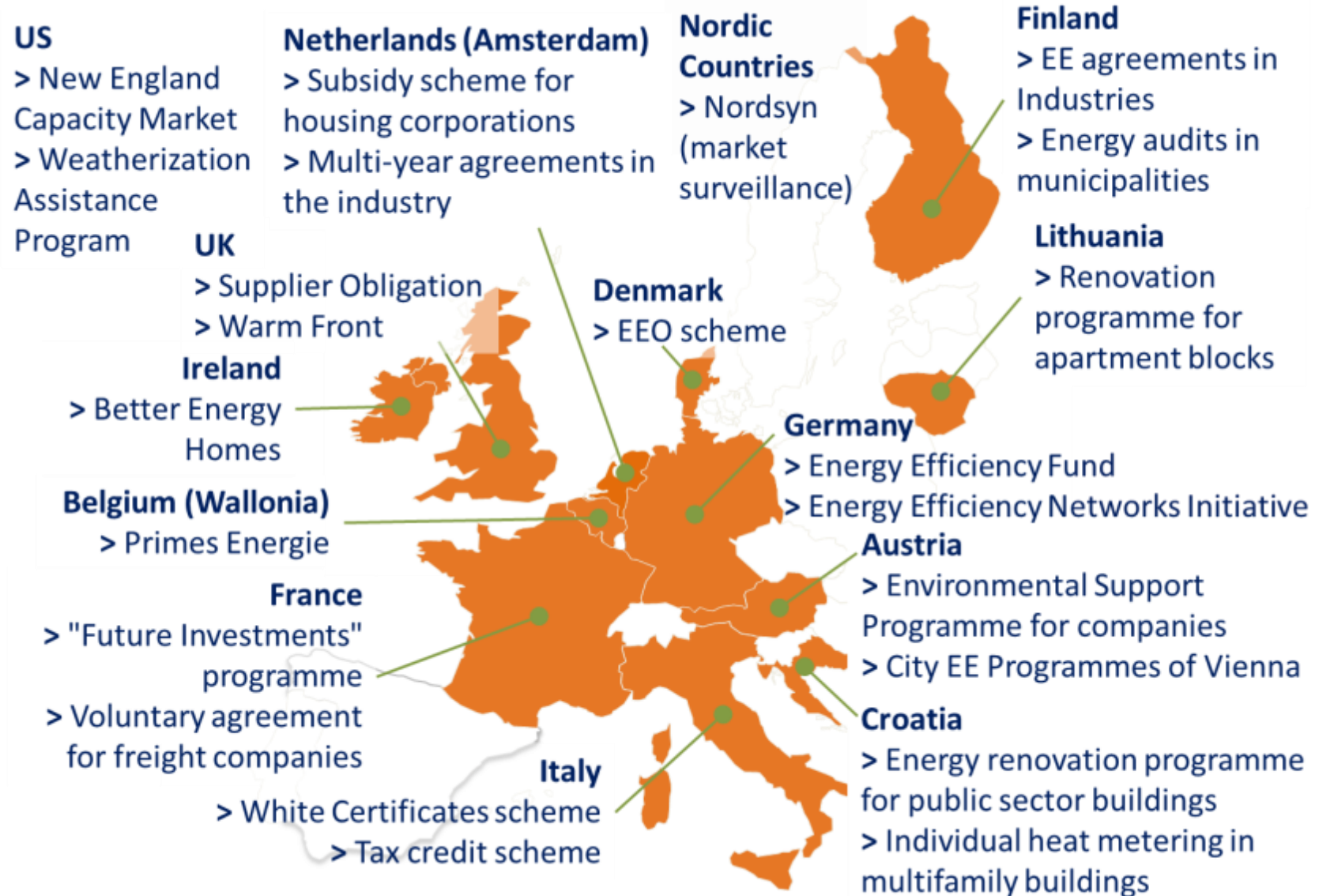
Other impacts:

Case Study available:

## EPATEE's Case Studies:

- what is evaluation used for
- how it is performed
- covering a diversity of situations
- interviews with evaluation customers or evaluators

<https://epatee.eu/case-studies>



# EPATEE Sharing concrete examples



## Better Energy Homes

- The Finance Ministry was willing to increase the budget of the scheme after seeing the results of the cost-benefit analysis.

*“One may have fear to do an ex-post impact evaluation, because it may show smaller results than based on the engineering estimates. However **this increases the robustness of the results and therefore the confidence funders can have in them**”*

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## Energy Efficiency Obligation

- The ex-post evaluations provide a basis to discuss further improvements of the scheme (e.g., list of eligible actions, prioritisation factors, additionality criteria)

*“It is important to distinguish M&V and evaluation. M&V provides data and feedback as a regular basis for managing the scheme. Evaluation provides an **independent and in-depth analysis** of the scheme and its impacts, in order to **draw recommendations**.”*



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# From monitoring needs to energy efficiency policy evaluation



[www.publnef-project.eu](http://www.publnef-project.eu)

Assess and learn from existing energy efficiency policy implementation practices in EU countries, regions, and cities

Strengthen the networking opportunities for relevant public agencies

Develop and adjust tools for public agencies to help them to implement energy efficiency policies

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# Matchmaking of best practices with needs in EE policy



EC EE directive - n. art.	n. GPs identified	n. national needs			n. regional/local needs		
		identified	matched	%	identified	matched	%
Art. 3: Goals, targets, specific measures and policies	12	6	2	<u>33</u>	-	-	-
Art. 4: Building renovation	6	*	-	-	-	-	-
Art. 5: Exemplar Role of Public Body Buildings	8	5	5	100	-	-	-
Art. 6: Purchasing by Public Bodies	3	16	2	<u>12.5</u>	-	-	-
Art. 8: Energy Audits and Management Systems	14	14	14	100	-	-	-
Art. 12:- Consumer information and empowering programme	6	*	-	-	40	4	<u>10</u>
Art. 14: Technology (i.e. Promotion of efficiency in heating and cooling)	12	12	9	75	-	-	-
Art. 16: Availability of qualification, accreditation and certification schemes	0	2	0	0	-	-	-
Art. 17: Information and Training	9	44	36	82	156	110	71
Art. 18: Energy Services	4	25	25	100	-	-	-
Art. 19: Other measures to promote energy efficiency	1	0	-	-	-	-	-
Art. 20: Energy Efficiency National Fund, Financing and Technical Support	11	13	13	100	28	28	100
Art. 24 : Review & Monitoring of Implementation	3	13	6	<u>46</u>	-	-	-
Art. 28: Transposition	2	0	-	-	-	-	-

Warning! On all policy governance levels very few (or no) best practices address target setting, qualification, energy services and monitoring

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# Tools for local/regional EE policy implementation

Mainly European level tools (few national) – guidelines, softwares and few databases related to the Energy Efficiency Directive

Softwares refer to Art. 17 (Information and training), and Art. 24 (review/monitoring) and very limited to audits (Ar.8), consumer information (Ar. 12) and energy services (Ar. 18).

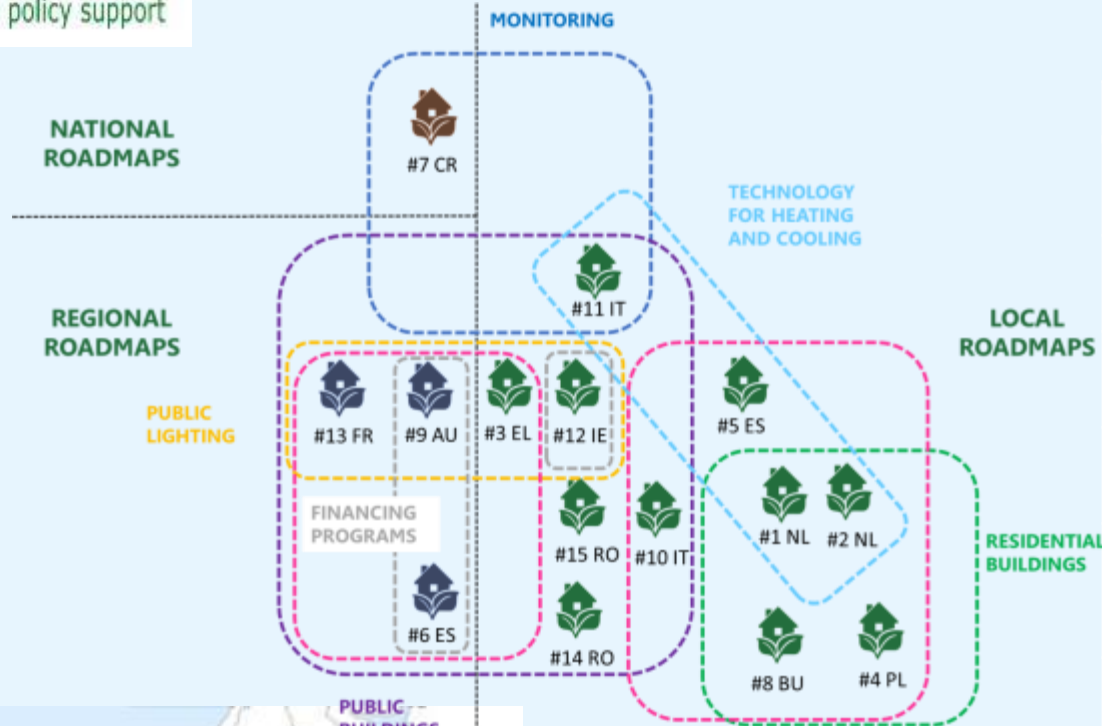
Guidelines refer to Ar. 17 and Ar. 20 (financing and technical support) and limited to renovation (Ar. 4), public procurement (Ar. 6), and heating and cooling (Ar. 14)

There are **almost NO TOOLS on**: Role of public buildings, metering, billing, cost of access to metering and billing, penalties, energy transformation, distribution, qualification – accreditation and certification schemes

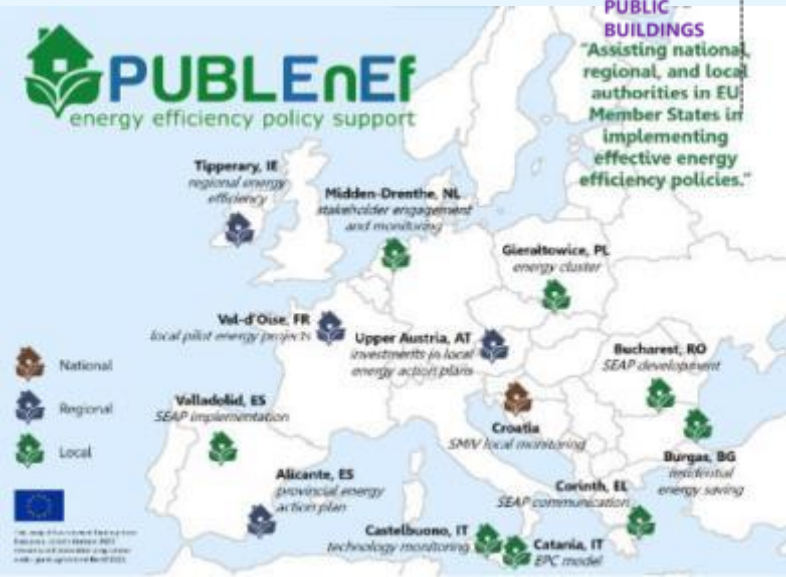
PUBLENEF moves to Roadmap action: Moving from SEAPs and strategy formulation to **IMPLEMENTATION and overcoming barriers!**

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# PUBLNEF Roadmaps



Specific issues	Means of addressing
<i>Lack of knowledge on technical/communication staff</i>	Seminars/Specific workshops on energy issues directly to the roadmap topic
<i>Lack of knowledge on citizens (e.g. on practical use of alternative fuels)</i>	Launching communication campaign and engaging citizens
<i>Lack of transposition from national to regional plans</i>	Experience sharing from multilevel governance cases on energy efficiency
<i>Lack of monitoring expertise</i>	Introduction of monitoring means, gradual setting up of online monitoring
<i>Large number of actions on SEAPs</i>	Selection of the most 'useful' ones where international experience exists and coupling it with roadmaps
<i>Lack of experience on an action (e.g. innovative financing)</i>	Presentation of the innovative technique to many fora to receive feedback
<i>Lack of expertise on funding seeking</i>	Realistic examples and in some cases technical assistance up to the point of writing the proposal to a fund
<i>Lack of staff!</i>	We cannot touch that BUT we can optimize their skills



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# Roadmap monitoring

- **General** (stakeholder roles, milestones)
- **Policy needs and objectives** (objectives, how to measure, and priority)
- **Interaction** (use of best practices, tools, and other roadmaps)
- **Implementation** (stakeholder communication, political commitment, replication in other regions)
- **Impacts** (real measurement of objectives, energy savings, and policy-makers/implementers reached)

# Main factors that drive energy-related choices

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**Energy collectives and the factors that determine their energy-related choices**  
**Key messages for policy-makers**  
**Christian A. Klöckner (coordinator ECHOES)**

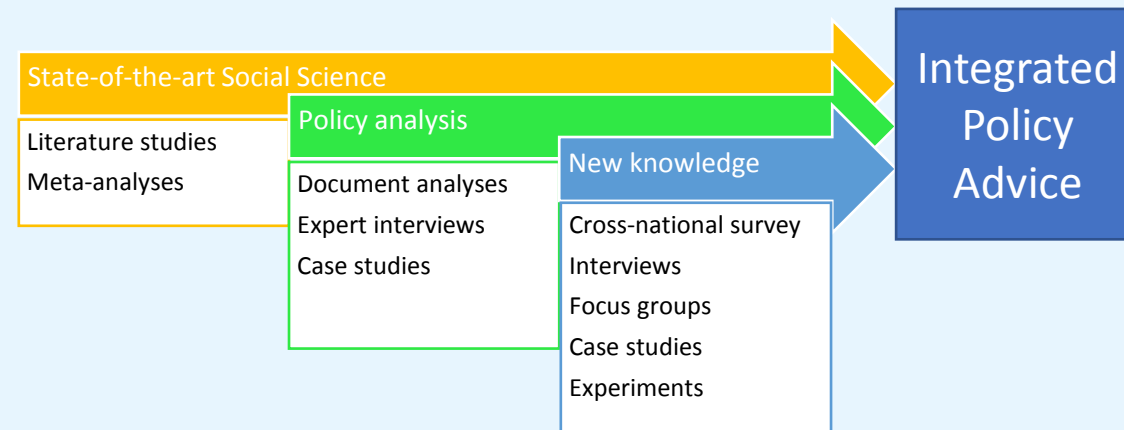
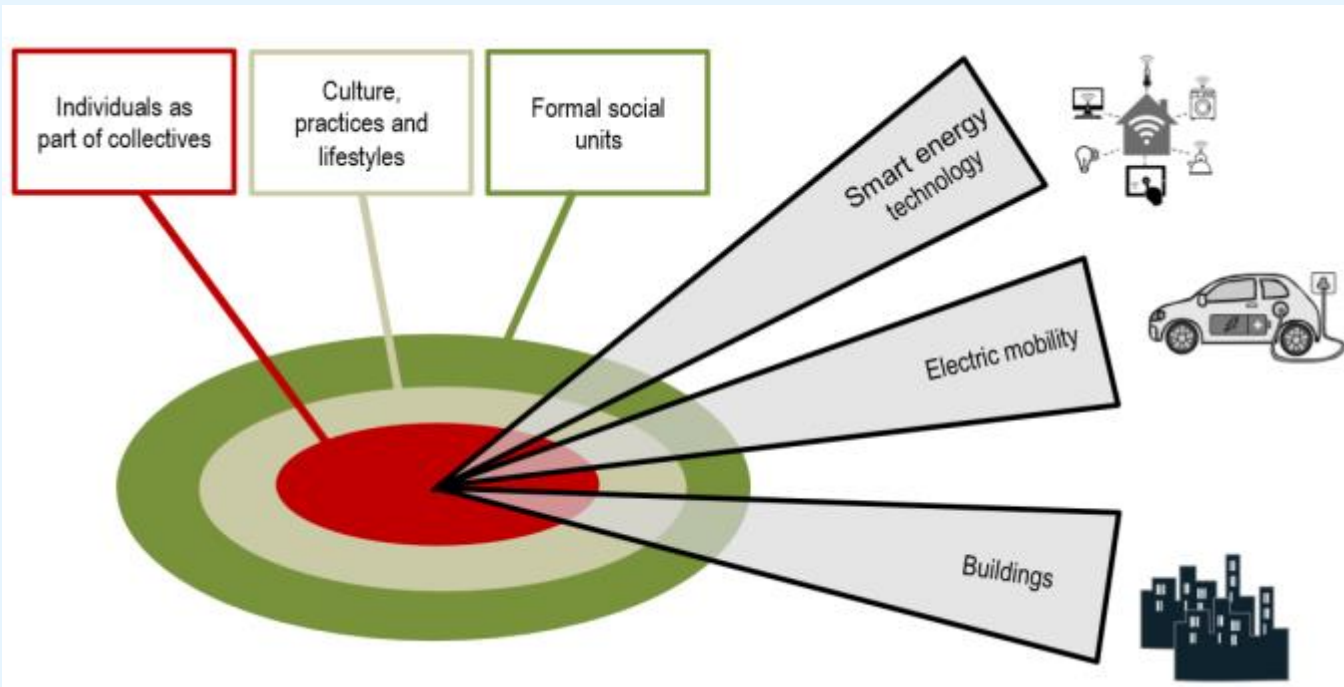
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# The ECHOES concept



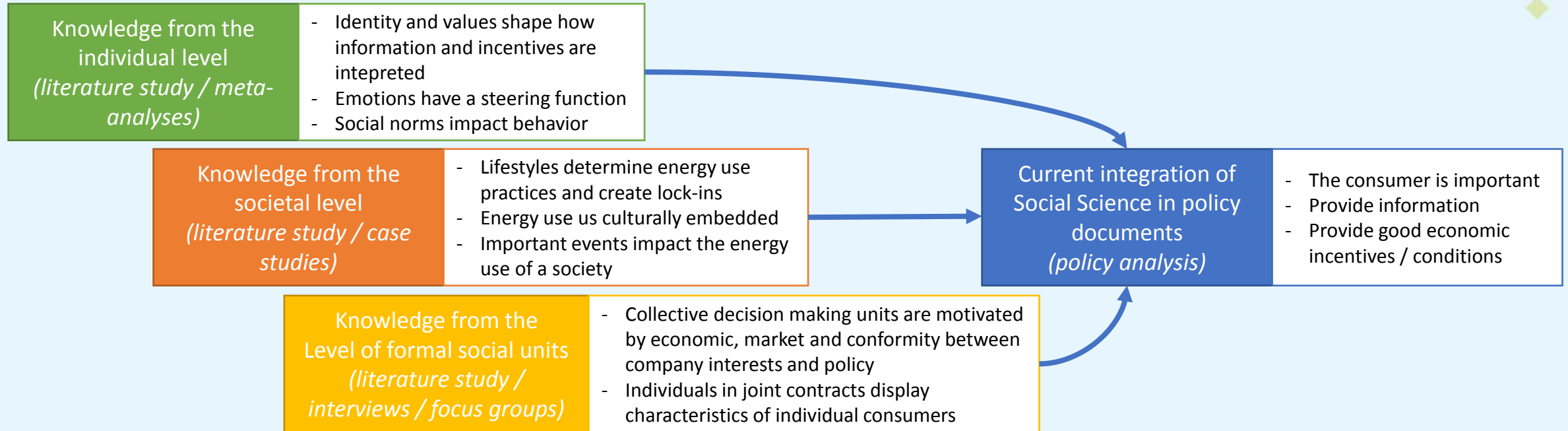
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# Some key findings so far



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# Enabling the Energy Union through understanding the drivers of individual and collective energy choices in Europe

## AIM OF THE PROJECT

- To identify the key factors of energy choices in three areas: transport, heating and cooling, and electricity.
- To better grasp the interactions between individual and collective energy choices and the regulatory, technological and investment prerequisites of the Energy Union transition.
- To look at the social acceptability of energy transitions using a participatory foresight process and provide strategic policy recommendations.
- To increase the knowledge of governance and social mobilisation practices.



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# Main outcomes on drivers of energy choices

## CASE STUDIES

### Case study 1

#### Prosumers (NO, IT, RS, UA, UK)

**Great diversity** in the electricity systems, regulations and incentive tariff and subsidy schemes for prosumers

**Main motivations:** saving money on electricity; environmental concerns (sometimes also professional interest)

**Gender differences:** perceived as a 'male thing' in many households and through media coverage

**Changes observed in energy habits:** shift of energy use to daytime and close monitoring of electricity use

### Case study 2

#### Heating and cooling (HU, UA, ES, DE, FR)

**Main issues** with heating:

- Need of **clear information** (for everyday practices, bills, renovation options)
- Flaws of **district heating**
- **Tenant/owner** problem
- General **lack of capital** to invest (even when subsidies are available)

**Behavioural aspects:** importance of habits and comfort

**Desire to decrease costs:** can be connected to environmental awareness but also lead to unsustainable practices

### Case study 3

#### Mobility: carsharing (ES, HU, IT, NO, PL)

Benefits of both '**One-way**' and '**Station-based**' carsharing:

- Driver of the transition from property-based to **access-based mobility**
- Complements lack of **public transportation**
- Access to new and **alternative-fueled vehicles**, including electric

**Main motivations:** Convenience in use; economy; propensity towards technology; to a lesser extent, environmental considerations

More popular among young, medium-highly educated and medium-high income people

# ENERGISE

EUROPEAN NETWORK FOR RESEARCH, GOOD PRACTICE  
AND INNOVATION FOR SUSTAINABLE ENERGY

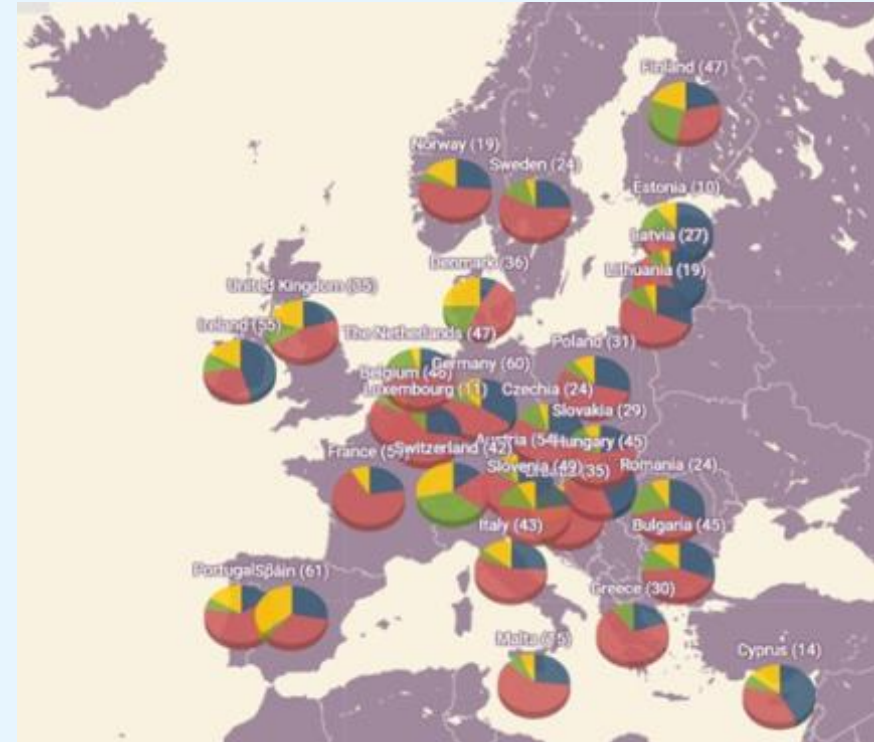


This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

## ENERGISE (2016-18) aims to:

- ✓ Advance **social-scientific research** on household energy use
- ✓ Assess **cross-cultural variations** in energy use
- ✓ Identify opportunities for **transformations in household energy use**, towards EU's Energy Union

Classified > 1000 sustainable **energy initiatives in 30 European countries** to **inform** the subsequent design, rollout and monitoring of two culturally sensitive **Living Labs**, designed to reduce household energy use across multiple countries.



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# ENERGISE

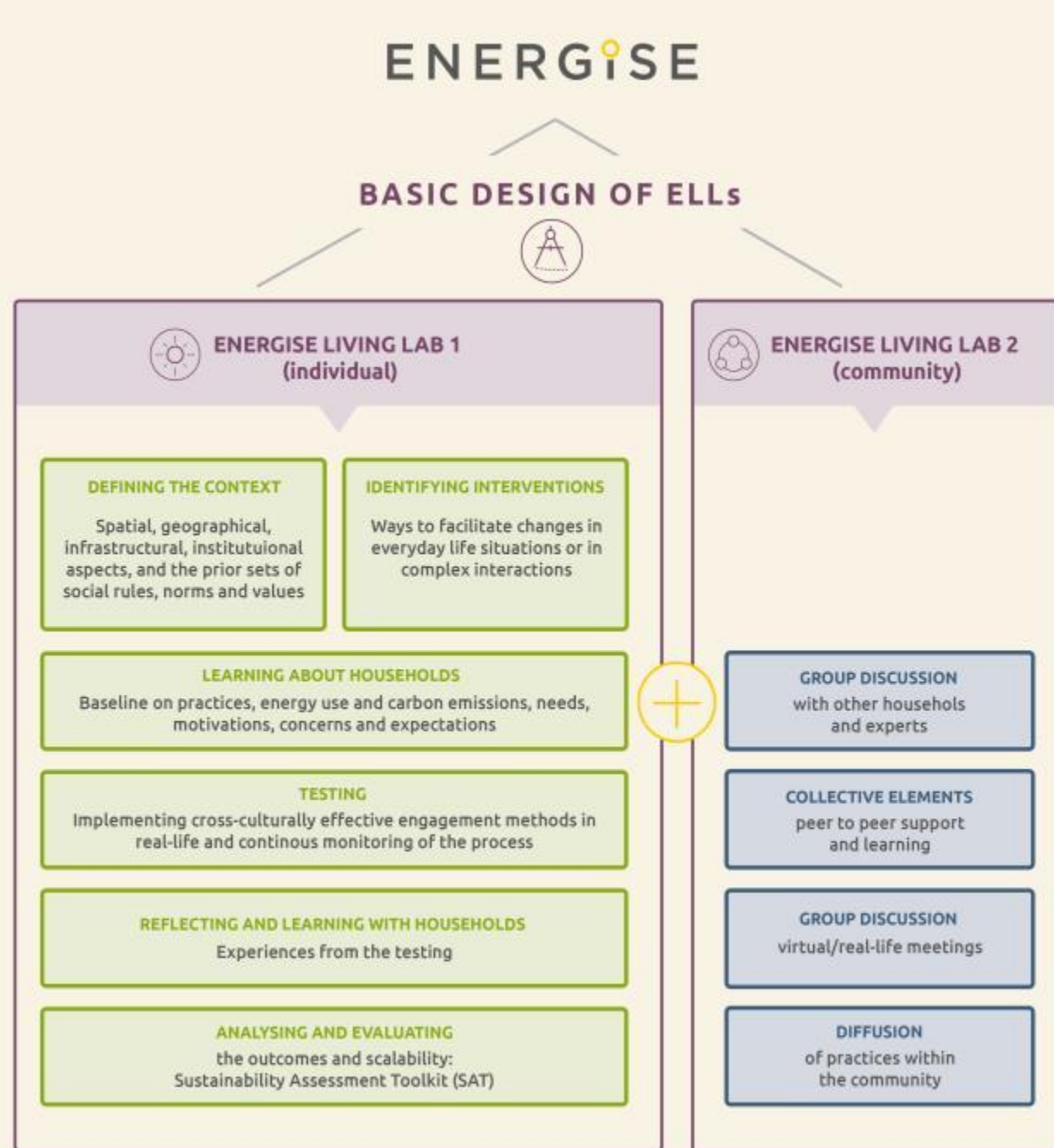
EUROPEAN NETWORK FOR RESEARCH, GOOD PRACTICE  
AND INNOVATION FOR SUSTAINABLE ENERGY

Living Labs with individuals and  
households across 8 countries



Visit our project and Open Access Database  
at: <http://energise-project.eu/projects>

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# Energy communities and energy citizen experiences

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Dr Niall Dunphy  
University College Cork  
Ireland

 @npdunphy

# Dialogues on Power:

## Energy Citizen Experiences at the Interface of the Energy Transition

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@EntrustH2020



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# Energy System Participation

The transition to a decarbonised energy system involves a new role for citizens – but what role?



or



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# Active Citizen or Energy Citizen?

## Consumerist

- Legitimisation seen only in terms of people's purchasing decisions
- Rights are primarily statutory consumer rights
- Responsibilities enlarged to include active consumerism
- Often represents a responsibility shift

## Citizenist

- Inherent legitimisation comes from citizenship
- Remains a nebulous concept
- Role envisaged in actively shaping energy system
- Goes beyond information-sharing or simply supplying consent
- Policy process decentralised & democratised

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# Value-Added of Energy Efficiency for REScoops

## The REScoop PLUS Toolkit

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# REScoop PLUS – Vision

REScoop PLUS is a project that **supports the deployment of tools and best practices for more energy efficiency in the energy cooperatives.**

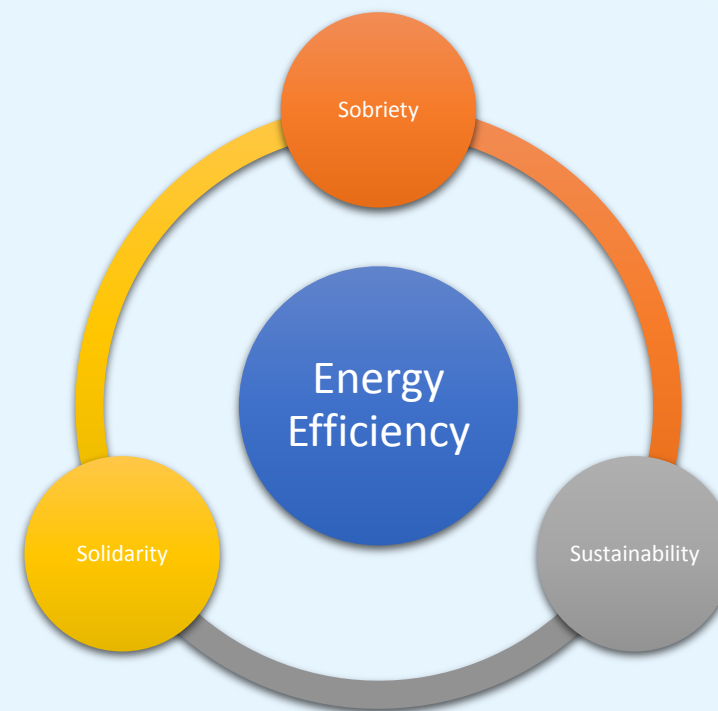
REScoop PLUS supports **energy efficiency as a way to improve business cases for the energy cooperatives.**

REScoop PLUS is financed by the H2020 program

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*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 696084*



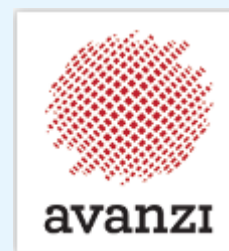
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# 12 Partners – 8 Countries – 7 REScoops



UNIVERSITY OF TWENTE.



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# The Toolkit



Energie ID



Info Energia



Dr Watt



Package Approach



Technical Support



Optimized Return Flow



Single Tariff Approach


“Consumers upon joining a REScoop reduce their consumption by up to 20%”

A majority of the rescoops members are using the best practices

The best practice are acheiving up to 60% of savings

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