Giulia Pizzini – IEECP

Heike Brugger – Fraunhofer ISI

Concerted Action meeting, March 2023

Beyond saving CO_2 and energy costs – what is in it for society?

The multiple impacts of energy efficiency and their role for consumers

NUDGE

Nudging consumers towards energy efficiency through behavioural science

ENSMOV PLUS

MICAT

Multiple Impacts Calculation Tool

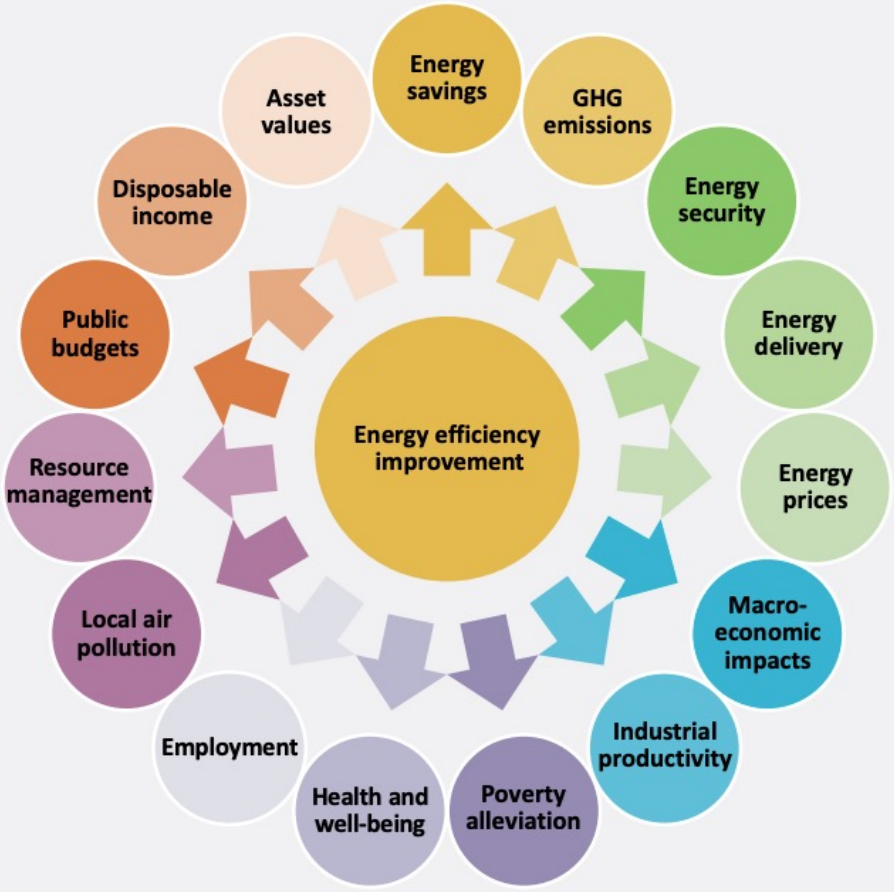
The MICAT project

MICAT
Multiple Impacts Calculation Tool

- AKA co-benefits, ancillary benefits, non-energy benefits, multiple impacts
  - accompany energy efficiency projects and provide additional arguments to implement EE measures, but are rarely reported
  - explicitly mentioned in EC's policy-making (e.g. EPBD, EED) and reporting (Art. 3 recast EED, NECPs) but rarely quantified

- Art. 3 of recast EED (EE1st):

<<… Member States shall promote and, where cost-benefit assessments are required, ensure the application of cost-benefit methodologies that allow proper assessment of wider benefits of energy efficiency solutions from the societal perspective >>



Energy System Cost 2020-2050: not a clear argument for Energy Efficiency First

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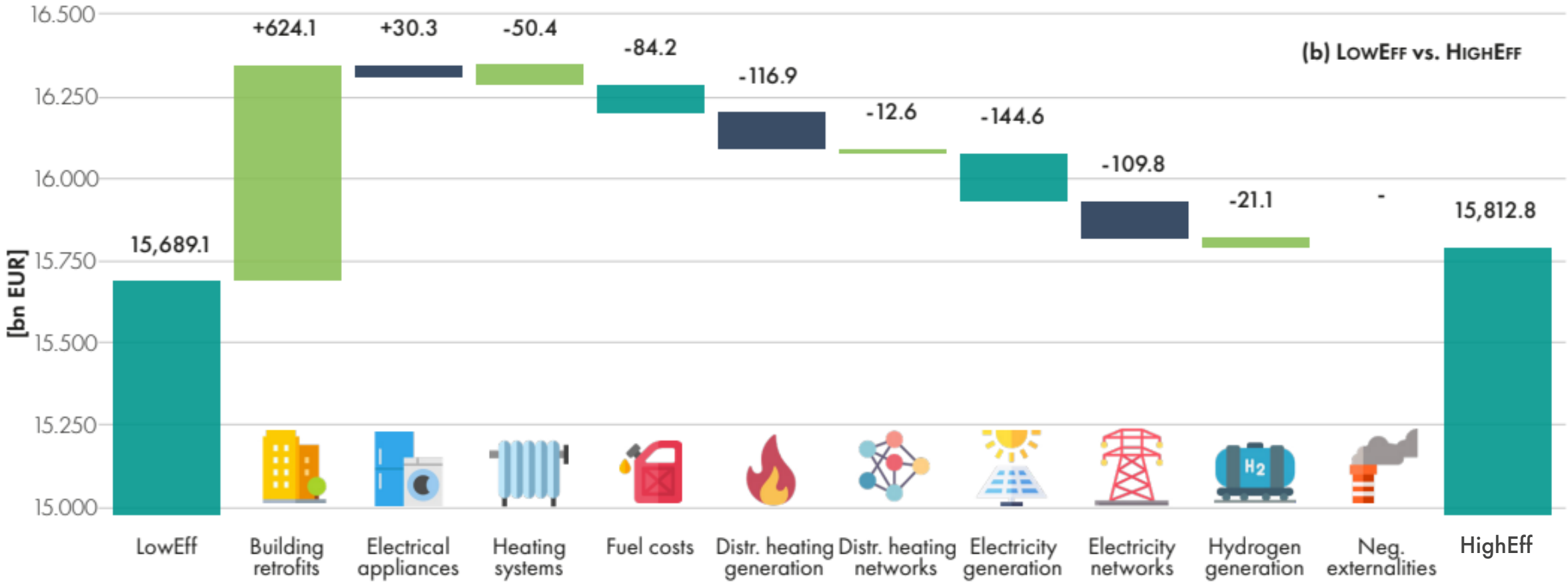


Source: www.enefirst.eu

The MICAT project

MICAT
Multiple Impacts Calculation Tool

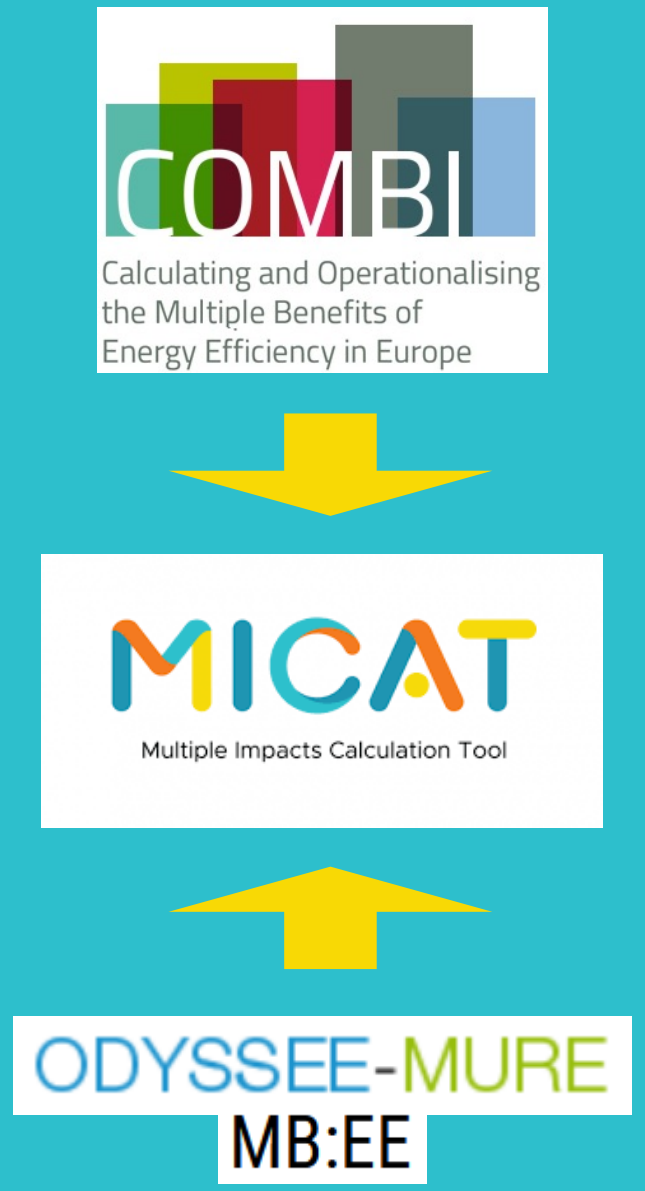
Development of a comprehensive approach to estimate Multiple Impacts of Energy Efficiency by providing a publicly available and easily usable online tool.

- **Improve scientific knowledge** and methods to quantify Multiple Impacts
- Underline the **importance of MIs** in policy evaluations
- **Facilitate assessment of MI** of policies at EU, national and local levels
  - **Go beyond the approaches** of earlier MB-Tools like in ODYSSEE-MURE and COMBI
  - Cover several **key scenarios,** allow evaluation of customised scenarios and policy measures
  - **Maximise usefulness** for a large target group and cover a wide range of use-cases

MICAT: **M**ultiple **I**mpacts **Ca**lculation **T**ool

→ quantification/ monetization of different categories of multiple impacts

→ analyses on three governmental levels (EU, national, local)



Conceptual Approach

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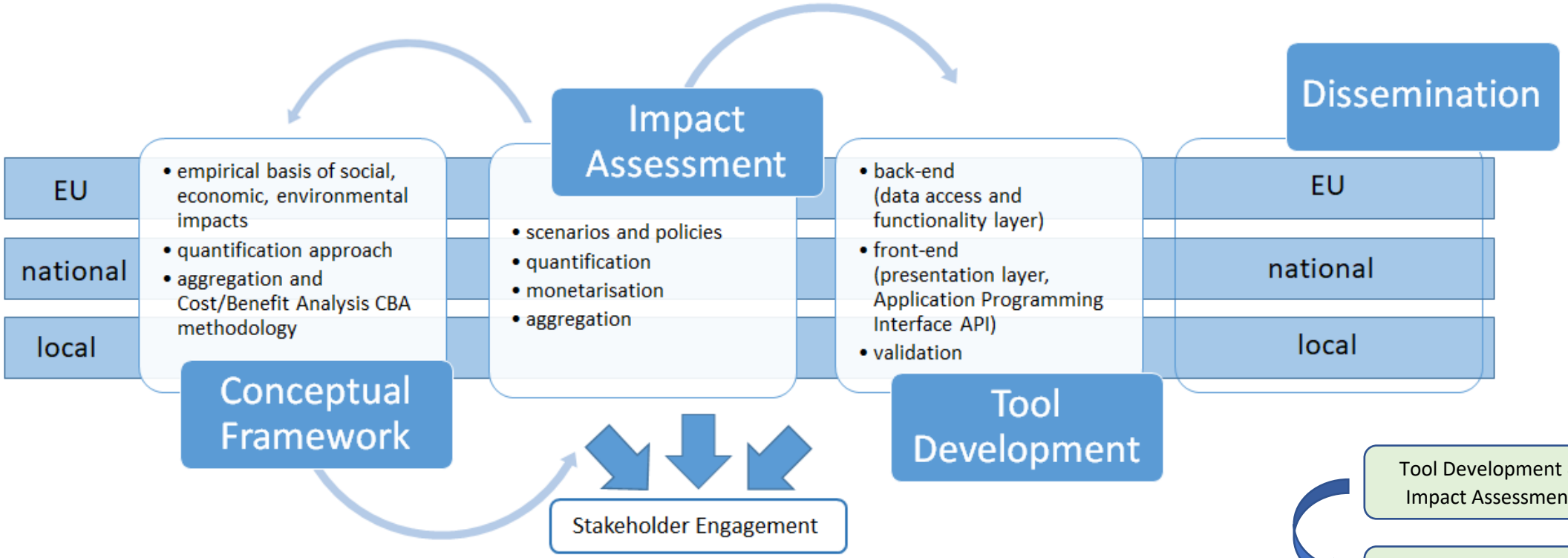

Quantification: **energy savings** as the starting point

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Input

Energy savings (mandatory)

Further parameters (optional)

Output

Multiple impacts
Quantification
Monetisation
Cost-benefit analysis

Quantification: **Indicator Approach**

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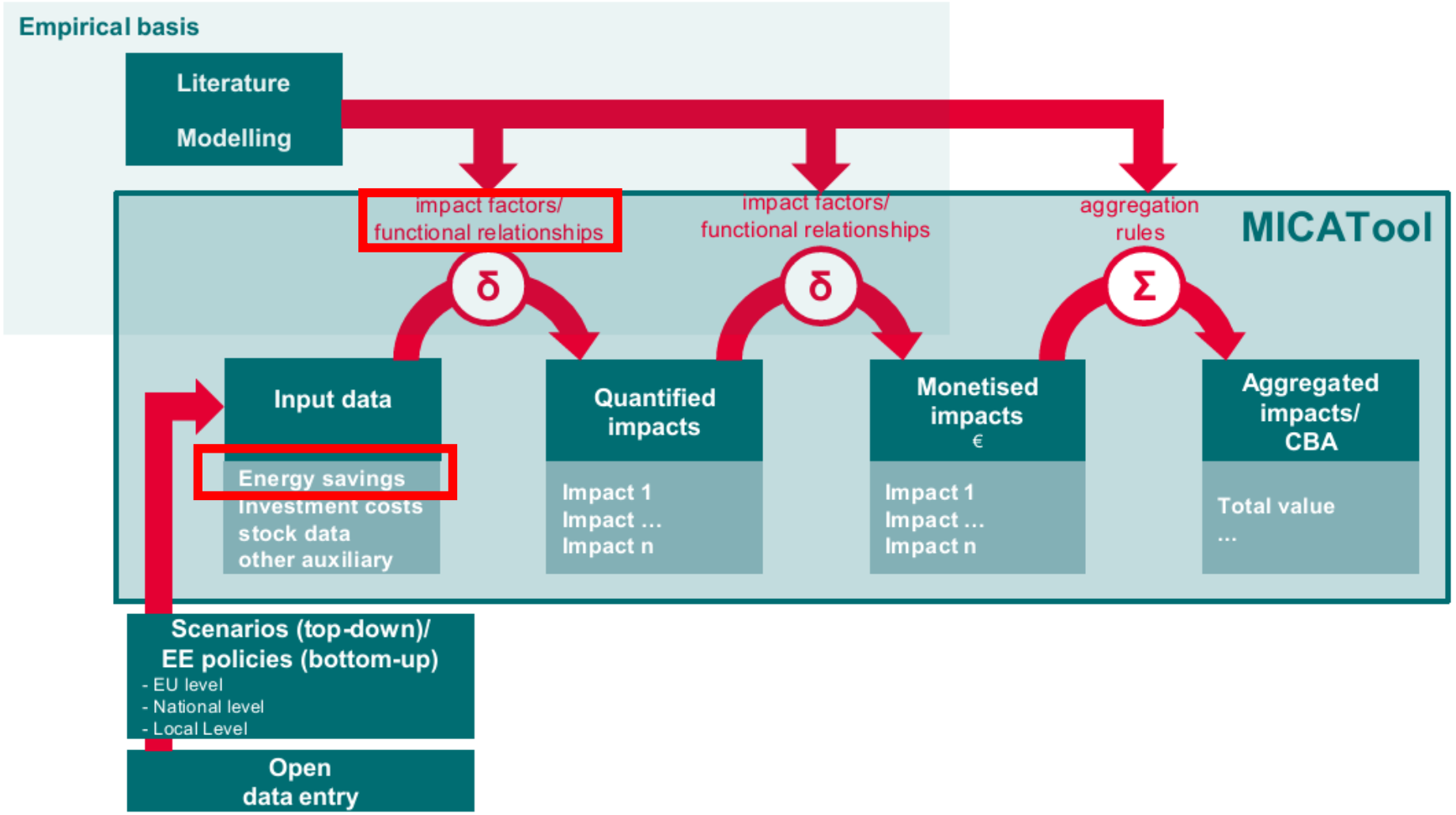

Functioning of the MICATool

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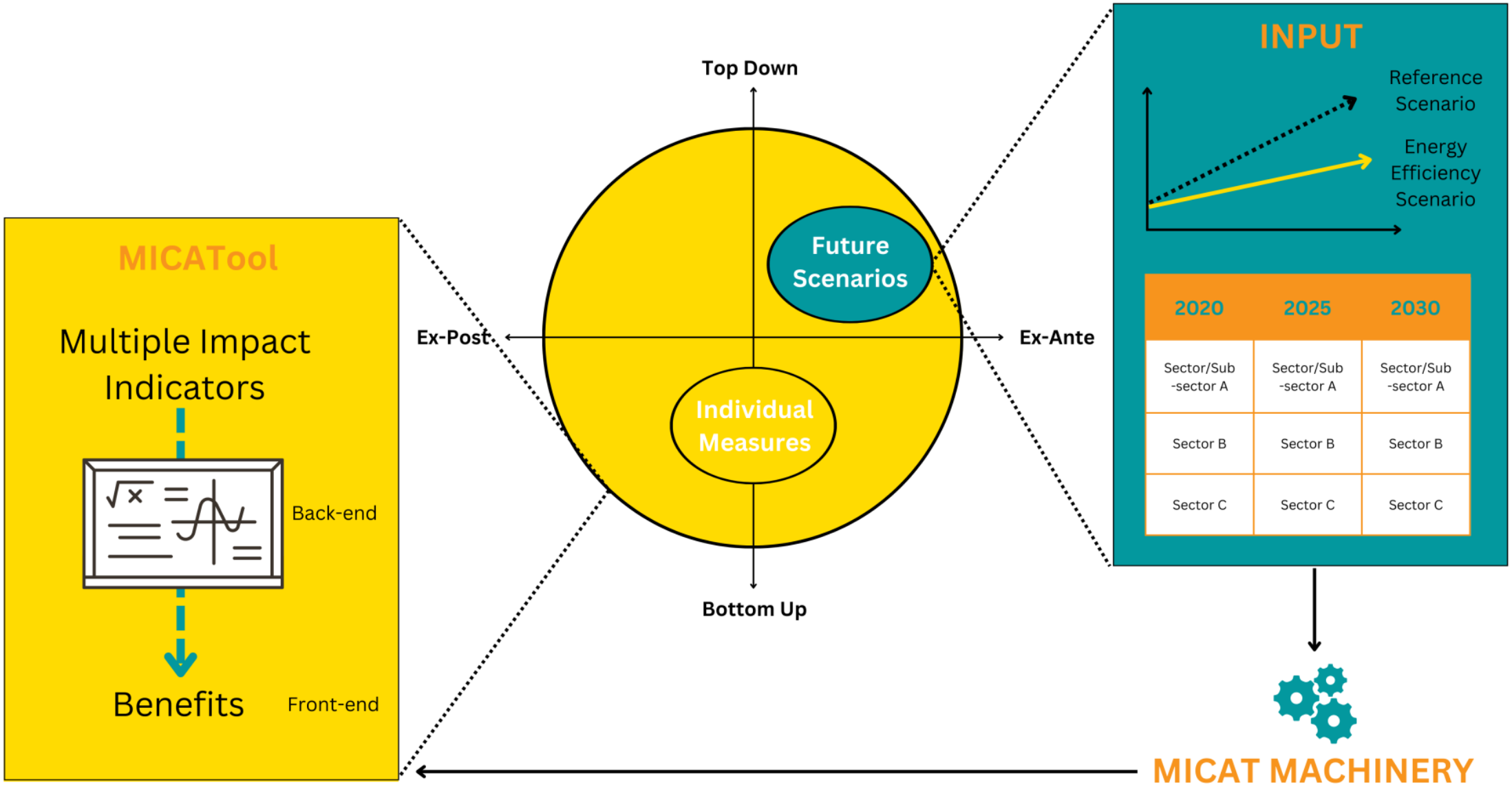
Multiple Impacts Calculation Tool



Catch Stakeholder Needs

MICAT
Multiple Impacts Calculation Tool

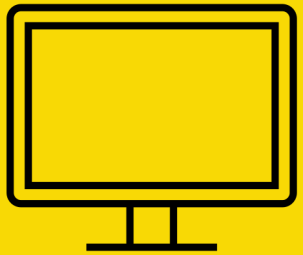
Maximisation of the tool's usefulness

- large target group/ wide range of use-cases: **input and validation** data from case studies on the three governmental levels
- guarantee to **fit the requirements of stakeholders** and to maximise its use for scientists, stakeholders and policy-makers.
- **making stakeholders familiar** with the tool/ approach & get direct feedback

3 Workshops on **three governance levels: local, national, and EU level**

1. **Analyse underlying assumptions and methodology** | Introduction of the project and indicator preferences

2. **Embedding of the tool** | Discussion of an advanced mock-up to enable adjustments



3. **Implementation & Training** | Presentation and introduction into the use of the MICATool

Stakeholders workshops – Steps 1 & 2

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Multiple Impacts Calculation Tool

			
National expert team	prognos Fraunhofer ISI	RSE Ricerca Sistema Energetico	WiseEuropa
Participants	**Ministries:** Federal Ministry for Economic Affairs and Energy, Federal Ministry of the Environment, Federal Energy Efficiency Center; **National agencies:** Federal Environment Agency, German Energy Agency; **Other participants:** IIT Berlin, KfW, BiBB, Agora Energiewende, DENEFF.	**Ministries:** Ministry of the Ecological Transition – Energy Department; Ministry of the Ecological Transition – Environment Department; **National agencies:** ENEA, ISPRA; **Other participants:** GSE, Confindustria.	**Ministries:** Ministry of Economic Development and Technology, Ministry of Climate and Environment; **National agencies:** National Centre for Emissions Management, National Energy Conservation Agency; **Other participants:** Pro Akademia, University of Science and Technology.
Step 1 ws	31st November 2021	2nd December 2021	23rd November 2021
Step 2 ws	6th December 2022	23rd November 2022	7th December 2022
Measures proposed for evaluation	Regulatory approaches; subsidy programmes; and information and communication campaigns.	Super eco bonus 110 (building renovation incentive); white certificates scheme.	White certificates; Building renovation strategy (especially concerning heating); decentralized RES production; tax reliefs; transport policies.

Reference scenarios

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Multiple Impacts Calculation Tool

				
Baseline	EU reference scenario 2020 from July 2021 (including trends on energy consumption to 2050)	A reference scenario showing the business as usual development without new or adapted measures	A baseline scenario (BASE) showing the development without NECP measures (without new or adapted measures)	A reference scenario (REF) showing the development without the NECP measures (without new or adapted measures)
EE	EU "EE" scenario at the EU level – same policy framework data as REF but including Fit-for-55, revision of: - EU ETS; - Effort sharing regulation; - EED & EPBD; - Stronger CO2 emission standards for cars and vans; - Energy Taxation Directive.	A "climate action scenario" also including several energy efficiency policies	The NECP scenario including a number of energy efficiency policies	A "NECP scenario" including a number of energy efficiency policies

The tool is designed in such a way that users can carry out analysis with own scenario data

MICAT's indicators

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Multiple Impacts Calculation Tool

Source: www.odyssee-mure.eu

Social indicators

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Multiple Impacts Calculation Tool

SoI	Social impact indicators	Quantification methodology / unit
		Energy Poverty
SoI-1	Alleviation of energy poverty	Based on the difference of absolute energy expenditures to a defined national threshold (M/2 indicator) and the extent to which energy cost savings from EEI actions achieve to close this Energy Poverty Gap
		Unit: Number of households / persons lifted from energy poverty
		Quality of Life
SoI-2	Alleviation of inequality	Impact of incomes / expenses by income decile, indices
		Unit: S80/S20, Income/Consumption by income decile
		Health
SoI-3	Human health due to improved indoor climate	-
SoI-3.1	*Reduced or avoided excess cold weather mortality*	Premature mortality due to inadequate heating
		Quantification based on COMBI model – comparison of the mortality cases during the cold weather period prior to and projected excess cold weather mortality after the implementation of EEI actions
		Unit: Number of deaths avoided
SoI-3.2	*Avoided burden of asthma due to the reduced exposure to indoor dampness*	Asthma morbidity
		Quantification based on COMBI model – comparison of the population suffering from asthma due to indoor dampness prior to and after the implementation of EEI actions
		Unit: DALY
SoI-4	Human health due to reduced air pollution	-
SoI-4.1	*Air pollution-related mortality*	GAINS model and impact pathway approach
		Unit: Number of deaths avoided
SoI-4.2	*Air pollution-related morbidity*	GAINS model and impact pathway approach
		Unit: DALY or restricted activity days (RAD)
SoI-4.3	*Working days lost (impact related to health)*	Lost working days due to ill health caused by outdoor air pollution
		Quantification based on country-specific concentration response functions; monetisation by taking a cost-of-illness approach and estimating the reduced productivity due to reduced working time
		Unit: Number of days gained

Economic indicators

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Multiple Impacts Calculation Tool

EcI	Economic impact indicators	Quantification methodology / unit
		Economy (Macro)
EcI-1	Impact on GDP	Input-Output analysis
		Unit: mil. €
EcI-2	Employment effects	Input-Output analysis
		Unit: thousand persons
EcI-3	Energy price effect	Unit: % change (range)
EcI-4	ETS price effect	N/A
EcI-5	Impact on sectoral Shifts	Input-Output analysis
		Unit: mil. € and thousand persons
EcI-6	Energy intensity	PRIMES model, Final demand reduced by EEI actions divided by GDP
		Unit: ktoe/1000€
		Economy (Micro) & Competitiveness
EcI-7	Impact on the asset value of commercial buildings	Valuation of buildings and companies for different end-uses according to energy efficiency benefits
		Unit: €, % change
EcI-8	Turnover of energy efficiency goods	Production statistics
		Unit: €
EcI-9	Impact on Competitiveness	Input-Output analysis to derive changes in unit cost of production by industrial sector
		Unit: % change in unit cost of production and/or % change in demand
		Energy Security & Energy Delivery
EcI-10	Import dependency	Main input is final demand reduced by EEI actions. Relevant output is net imports of fuels multiplied by their respective energy prices (based on PRIMES)
		Unit: %
EcI-11	Aggregated energy security (supply diversity)	Relevant output is net imports. Allocation model to determine country of origin of imports. Use of risk indicators to assess political risks
		Unit: Herfindahl-Hirschman-Index (HHI)
EcI-12	Impact on demand integration of renewables	Demand-response potentials by country
		Unit: MW / %
EcI-13	Avoided additional energy generation capacity	Avoided electric power output & investment costs incl. cost for grid infrastructure
		Unit: €

Environmental indicators

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Multiple Impacts Calculation Tool

EnI	Environmental impact indicators	Quantification methodology / unit
		Energy & Resource Management
EnI-1	Energy (cost) savings	Energy savings derived from scenario analysis or bottom-up evaluation of policies
		Partly based on PRIMES
		Unit: MWh, ktoe
EnI-2	Savings on material resources	Material Flow Accounting: Bottom-up modelling (cradle-to-gate) of material and energy flows; characterisation by intensity of primary materials
		Unit: tons, tons/GDP
EnI-2.1	*Reduction in overall material footprint*	Sum of extracted abiotic (fossil fuels, metal ores, minerals) and biotic raw materials from nature, including the extraction of economic unused materials.
		Unit: tons, tons/GDP
EnI-2.2	*Life-Cycle wide fossil fuel consumption*	Accounting of all raw materials from nature, that can be classified as fossil fuels and are put to an economic use.
		Unit: tons
EnI-2.3	*Metal ores*	Accounting of all raw materials from nature that can be classified as metal ores and are put to an economic use.
		Unit: tons
EnI-2.4	*Minerals*	Accounting of all raw materials from nature that can be classified as minerals and are put to an economic use.
		Unit: tons
EnI-2.5	*Biotic raw materials*	Accounting of all raw materials from nature that can be classified as biotic raw materials and are put to an economic use.
		Unit: tons
EnI-2.6	*Unused extraction*	Accounting of materials that are extracted from nature that are not translocated from site or put to an economic use. This includes overburden and by-catch as well as waste on site.
		Unit: tons
		Global & Local Pollutants
EnI-3	Impacts on RES targets	Partial achievement of RES targets due to the reduction of gross final energy consumption; replacement of RES capacity; reduced need for interconnectors
		Unit: %
EnI-4	GHG savings (savings of direct carbon emissions)	Direct carbon emissions are based on emission factors for different fuel types. Values are listed in CO_2 equivalents per unit of energy.
		Unit: Mt CO2eq
EnI-5	Reduction in air pollution emissions	GAINS model
		Outdoor air pollutants emissions from fuel combustion, transportation and other economic activities (SO2, PM2.5, NOx, NH3, NMVOC)
		Unit: tons

Energy Poverty Alleviation

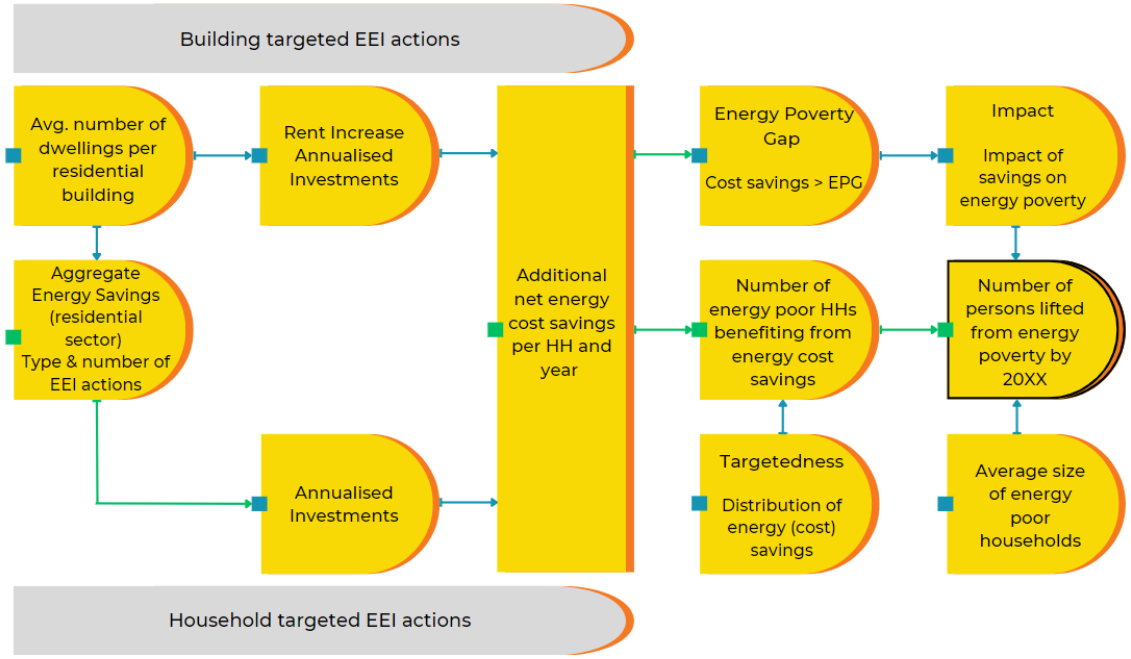
MICAT
Multiple Impacts Calculation Tool

For household targeted EEI actions:

$$\Delta EP = N \; x \; PTF \; x \; IF \; x \; SSH$$

For building targeted EEI actions:

$$\Delta EP = \frac{N}{D} \; x \; PTF \; x \left(IF_{owner} \; x \; OR + IF_{tenant} \; x \; (1 - OR) \right) x \; SHH$$



N: Number of EEI actions per year
D: Average number of dwellings per building
PTF: Policy Targetedness Factor
IF: Impact Factor for owner occupiers, tenants or all households
OR: Ownership rate among energy poor households
SSH: Average size of energy poor households

Energy Poverty – Impact Factor

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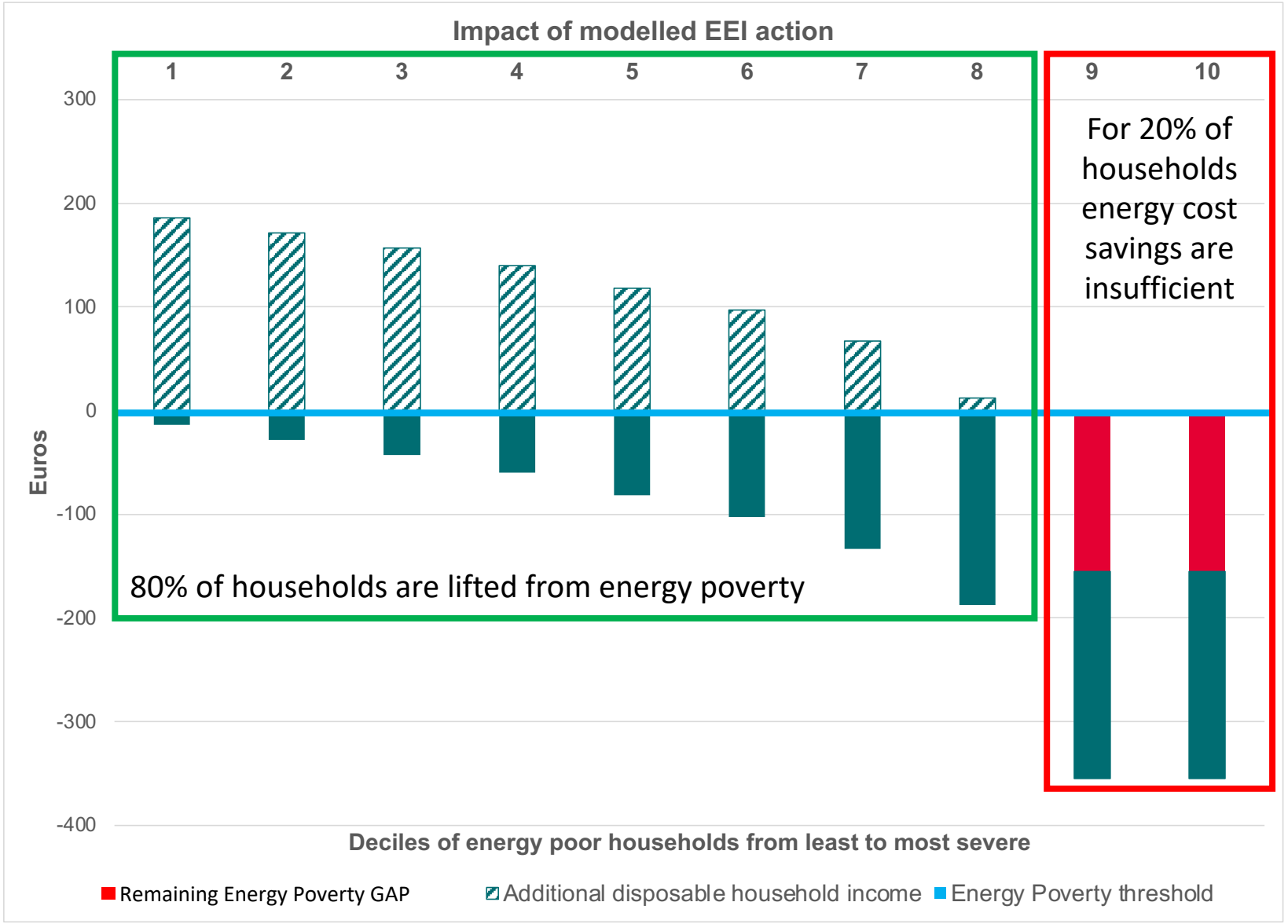
Multiple Impacts Calculation Tool

M2 indicator:
% of households whose disposable income is below the national median value **and** below half the respective national median value (710 €/a)

Energy Poverty Gap:
Difference between household energy expenditure and M2 threshold value (i.e. half the national median)

Severity of energy poverty ranges from underconsumption of 14 € in the 1st decile to 355 € in the 10th decile

Example:
Energy efficiency measure generates yearly energy cost savings of 200€/y per household
80% is lifted from threshold, 20% remain under threshold
Impact Factor → 0.8



The TEAM

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Multiple Impacts Calculation Tool

Fraunhofer ISI	FRAUNHOFER's project CO and in charge of WPs 3 (assessment) and WP4 (tool development). Mainly in charge of **Economic indicators**
Wuppertal Institut	WI is COMBI's former coordinator. Mainly in charge of WP 2 (Framework) with a major role in WPs 3 and 4 (assessment & tool development). Mainly in charge of indicators on **social indicators** within WP2.
E3Modelling Energy Economy Environment	E3M owns PRIMES and GEM-E3 models and has a major role in the framework development of the empirical basis of **economic indicators** within WP2.
IIASA International Institute for Applied Systems Analysis	IIASA's role is mainly in the framework development of the empirical basis of **environmental indicators** within WP2 (Framework) and supporting WP3 (assessment).
IEECP INSTITUTE FOR EUROPEAN ENERGY AND CLIMATE POLICY	In charge of **stakeholders engagement** on national and EU level, policy feedback and **communication and dissemination**.
ICLEI Local Governments for Sustainability EUROPE	ICLEI's role is mainly in WP5, leading the **stakeholder engagement on a local level**, and WP6 contributing to the overall conclusions and recommendations.
WiseEuropa	WISE is manily supporting IEECP in **communication and dissemination**

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password: Fit-for-55

NUDGE

Nudging consumers towards energy efficiency through behavioural science

NUDGE has received funding from the European Union's Horizon 2020 Research and innovation programme under grant agreement No 957012.

IEECP
INSTITUTE FOR EUROPEAN ENERGY AND CLIMATE POLICY

domX

Spring-Stof

imec

Zelena Energetska Zadruga

beegy
the energy manager

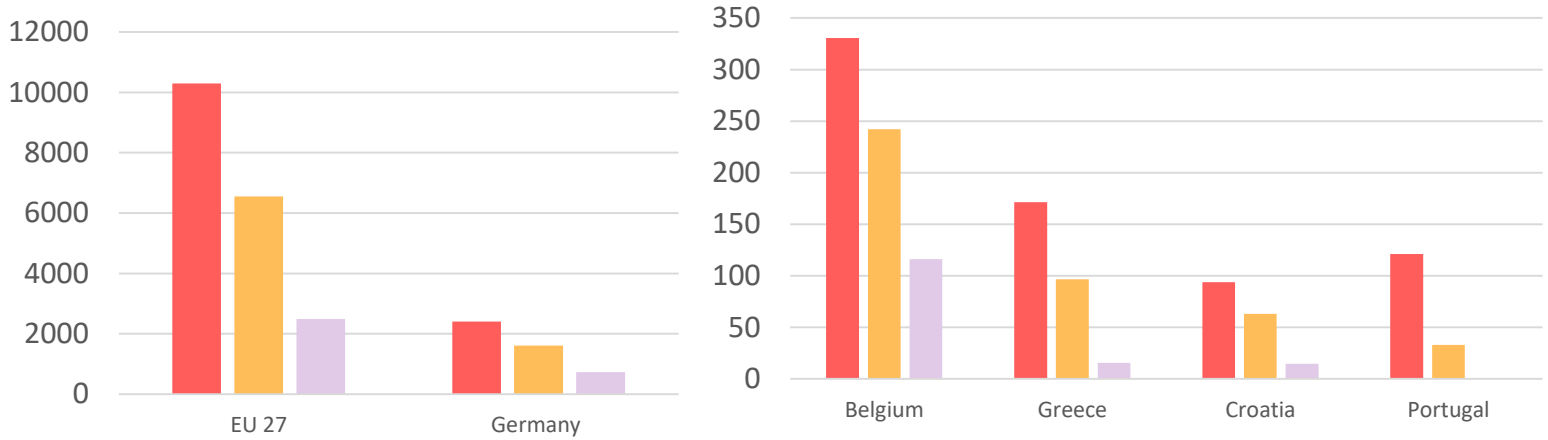
Active Citizenship Network
CITTADINANZATTIVA

Fraunhofer ISI

inegi driving science & innovation

ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

Context: Heating demand in the EU



Overview of the space heating related energy use in Europe and the NUDGE-Project countries (Eurostat, 2022): Final energy consumption in households 2019, final energy consumption for space heating and amount of natural gas in the final energy consumption for space heating [PJ], Further remarks: 75 % of natural gas in the EU residential sector used for space heating, 39 % of the extra-EU imports of natural gas in 2021 (share of trade in value) were from Russia (Eurostat, 2022).

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NUDGE aims to ***systematically assess*** *and* ***unleash*** *the* ***potential of behavioral interventions*** *towards achieving higher energy efficiency;*

and to pave the way *to the* ***generalized use of behavioural interventions*** *as a worthy addition to the* ***policy-making toolbox.***

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NUDGE

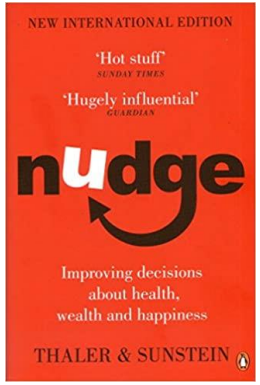
Nudging consumers
towards energy efficiency
through behavioural science

What is nudging?

- Facilitating Nudges
  - Positioning
  - Default
  - Anchoring & Adjustment
- Reinforcement Nudges
  - Feedback & Awareness
  - Instigating Empathy
  - Hedonic Goals
  - Just-in-Time Prompts
- Social Influence Nudges
  - Goal Setting & Commitment
  - Moral Norm
  - Enabling Social Comparison
- Fear Nudges
  - Make Recources Scarce
  - Reducing The Distance
- Confronting Nudges
  - Reminding of Consequences

Nudging is *any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any option or significantly changing their economic incentives*

R. Thaler, and C. Sunstein. *Nudge: Improving Decisions About Health, Wealth, and Happiness.* 2009



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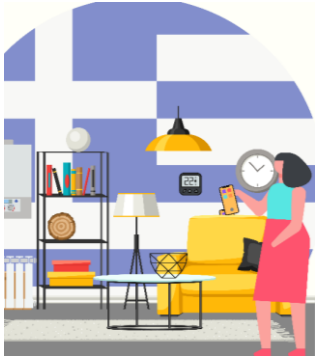
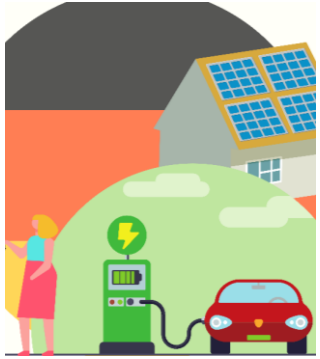
The NUDGE Pilots

Nudging consumers towards energy efficiency through behavioural science

Croatia: Promoting distributed self-production for local Energy communities



Greece: Efficient control of heating and DHW preparation for Natural Gas boilers



Germany: Optimization of EV charging with self-produced PV power

Belgium: Interdisciplinary, project-based education on home energy consumption for children

Portugal: Healthy homes for long-lasting energy efficiency behavior

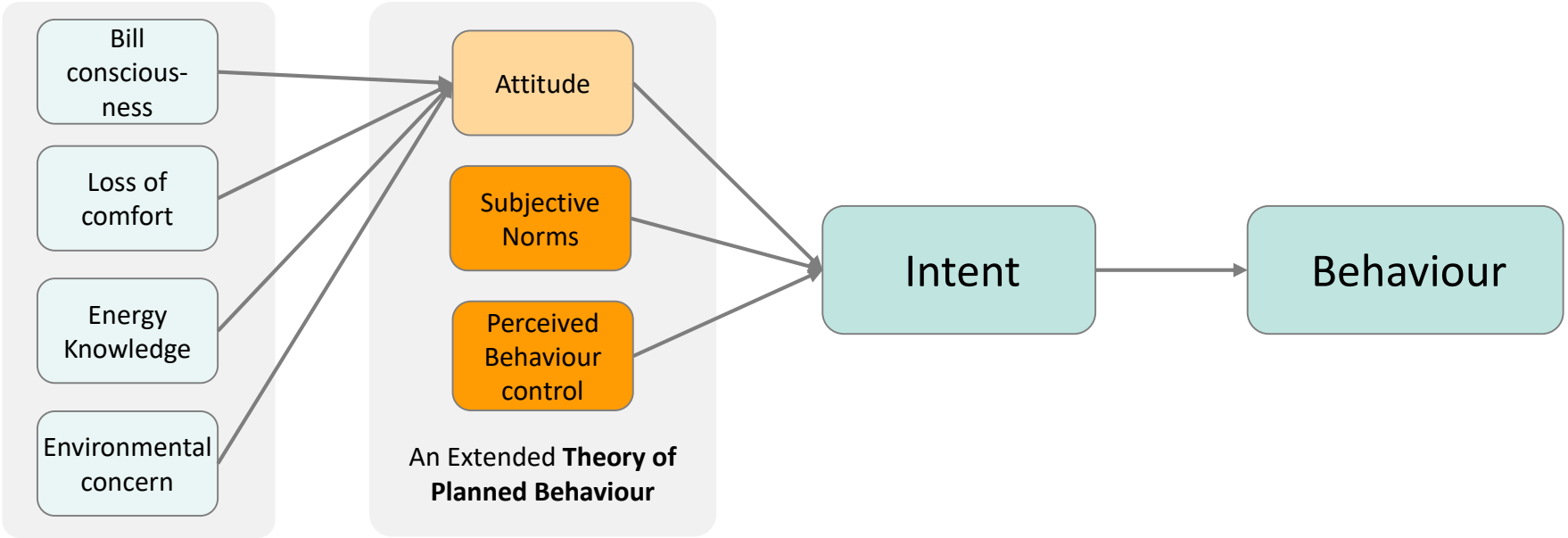
Energy monitoring and management tools

Digital user interfaces

Long-term energy efficiency behavior change potential

NUDGE has received funding from the European Union's Horizon 2020 Research and innovation programme under grant agreement No 957012.

The behavioural model



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Nudging consumers
towards energy efficiency
through behavioural science

Perceived behaviour control

Perceived behavioral control refers to a**n individual's perception of their ability to control their behavior**.

How to improve perceived behavioral control and encourage households to reduce heating & cooling demand:

- **Information campaigns** directly targeting customers with practical measures and habit formation.
- Intermediary actors, such as energy companies, can be **obliged to promote** energy efficiency measures.
- **Customers must have timely access to consumption data to make informed decisions.**

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Subjective norms

Subjective norms: the **perceived social pressure to engage in a certain behavior**.

To improve their impact:

- **Highlight the behavior of others** to encourage individual consumption reduction (e.g. Use survey results, such as the percentage of people who think energy conservation is important,)
- **Connect** individual energy-saving behavior **with societal goals** (e.g. reducing energy dependency and high prices)

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NUDGE

Nudging consumers towards energy efficiency through behavioural science

How to nudge consumer profiles for energy savings

1 ENVIRONMENTALLY CONSCIOUS AND WELL-INFORMED ENERGY CONSUMERS

"Idealistic energy savers", combination of high concern about the environment with good knowledge and strong sense of personal responsibility for action

Reinforcement nudge

Feedback & awareness: keep the interest warm through regular but sparse information about energy-saving (selected notifications, regular marketing campaigns)

2 CONCERNED BUT LACKING AWARENESS ENERGY CONSUMERS

Facilitating nudge

Concern about the environment, awareness of consequences but lack of know-how to practically save energy

Default: Turn energy-friendly operational settings of devices (thermostat, air conditioning equipment) into defaults, to save the user from the "burden" of learning what is appropriate and what is not.

Just-in-time prompts and tips: Provide the user with tips and recommendations exactly upon the time she mingles with devices' settings that have an impact on energy consumption.

Reinforcement nudge

3 CONCERNED BUT COMFORT-ORIENTED ENERGY CONSUMERS

Confronting nudge

Clear intentions for acting in an energy-friendly manner but strong concern about comfort, concerned about the monetary cost involved in higher energy consumption

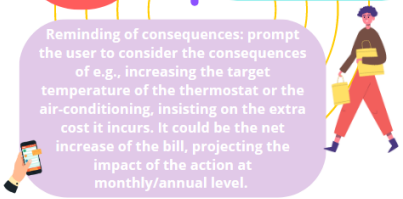
Reminding of consequences: prompt the user to consider the consequences of an action e.g., increasing the target temperature of the thermostat or the air-conditioning, insisting on the extra cost it incurs. It could be the net increase of the energy bill, projecting the impact of the action at monthly/annual level.

4 MATERIALISTIC ENERGY CONSUMERS ESCAPING PERSONAL RESPONSIBILITY

Confronting nudge

Combining lower than average energy-saving intentions with a low anticipation of personal responsibility to act and high concern for the financial implications of energy-saving activities

Reminding of consequences: prompt the user to consider the consequences of e.g., increasing the target temperature of the thermostat or the air-conditioning, insisting on the extra cost it incurs. It could be the net increase of the bill, projecting the impact of the action at monthly/annual level.



5 PRONE TO SOCIAL INFLUENCE ENERGY CONSUMERS

Low intentions for heating-related energy saving behaviour but strong sense of subjective norms, no distinct differentiation in other features.

Goal setting & commitment: get the consumers to sign a formal commitment to reduce the energy they consume, many times in return of some (nonmonetary) reward.

Social Influence nudge

Enabling social comparison: leverage different means (from written text and diagrams printed on a paper to online social platforms and dynamic query response systems) to facilitate the comparison with other peers (friends, neighbors, consumers of similar demographic characteristics).

6 INDIFFERENT ENERGY CONSUMERS

Feedback & awareness: use tips, notifications, marketing campaigns, to sensitize this group of users and overcome their reservations about the efficacy of their behaviour.

Low perception of self-efficacy and possible impact of personal action, low concern and awareness about environmental matters.

Reinforcement nudge

Facilitating nudge

Hedonic goal: stress the big picture and the impact on big things, possibly with some exaggeration, to render energy-saving a goal.

Default: Turn energy-friendly operational settings of devices (thermostat, air conditioning equipment) into defaults, to save the user from the "burden" of learning what is appropriate and what is not.

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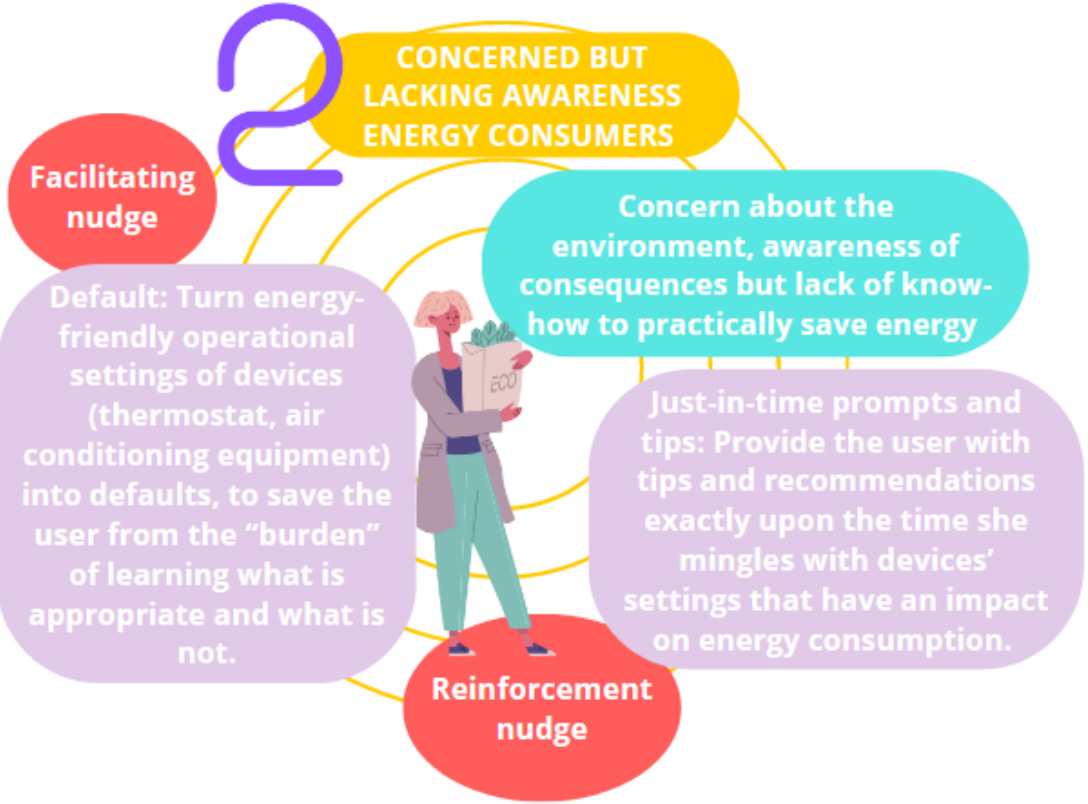
NUDGE

Nudging consumers towards energy efficiency through behavioural science

How to nudge consumer profiles for energy savings



Legend:

- Profile
- Key Points
- Intervention Type
- Description of Intervention

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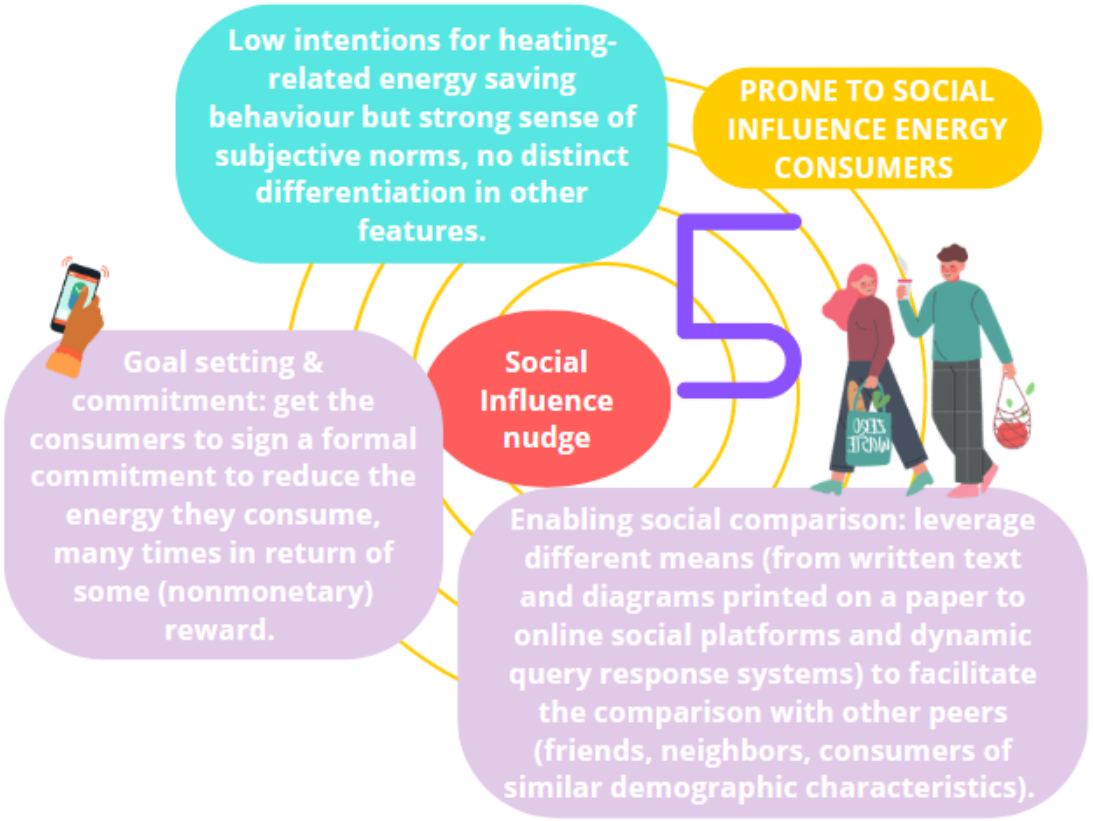
NUDGE

Nudging consumers towards energy efficiency through behavioural science

How to nudge consumer profiles for energy savings



Legend:

- Profile
- Key Points
- Intervention Type
- Description of Intervention

NUDGE has received funding from the European Union's Horizon 2020 Research and innovation programme under grant agreement No 957012.

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Nudging consumers towards energy efficiency through behavioural science

Pilot participants awareness of multiple impacts of energy efficiency and reduction of energy demand

Consumers are aware of some of the multiple impacts:

- energy cost savings and other own economic benefits
- some environmental effects (air quality; GHG emissions)

Overall the pilot leaders state that „the impact on a lot of other factors is not visible for participants"

Other impacts might be translated to positive impacts for consumers:

e.g. flexible prices for grid-serving consumption behaviour

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Individual multiple impacts addressed through the pilots

Individual multiple impacts

- Poverty alleviation
- Increased asset value
- Citizen empowerment by increased energy literacy and energy consciousness
- Health and well-being (also including loss of comfort)
- Individual resource management

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Communal multiple impacts addressed through the pilots

Communal multiple impacts

- Local air pollution
- Local job creation (e.g. solar installers and renovation craft)
- Energy delivery: grid stability through self-consumption and peak shifting
- Reduced consumption of fossil fuels & energy security

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The role of multiple impacts for individual decision-making

- often pilot participants lack detailed data and / or knowledge to know how to best adapat their behaviour
- particular knowledge that caters their profile is required

More awareness on multiple impacts

- leads to a better peer-to-peer communication of (smart) solutions, saving options and investments
- increases the likelihood that the users from different profiles are addressed adequately

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Key Takeaways for behaviour change in energy consumption

The behaviour of households has a very significant impact on energy consumption, even more so than building features.

The motivation to change behavior is influenced by 6 factors, in order of importance: *Perceived behavioral control*, *subjective norms*, *attitudes*, *personal moral norms*, willingness, and age.

Individuals have different energy usage profiles, and require personalized approaches to encourage energy efficiency.

Depending on the user profile, different multiple impacts will affect the decision-making.

Policymakers should evaluate the effects of policies on various user profiles to ensure successful implementation.

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NUDGE

Nudging consumers towards energy efficiency through behavioural science

@NUDGEH2020

www.nudgeproject.eu

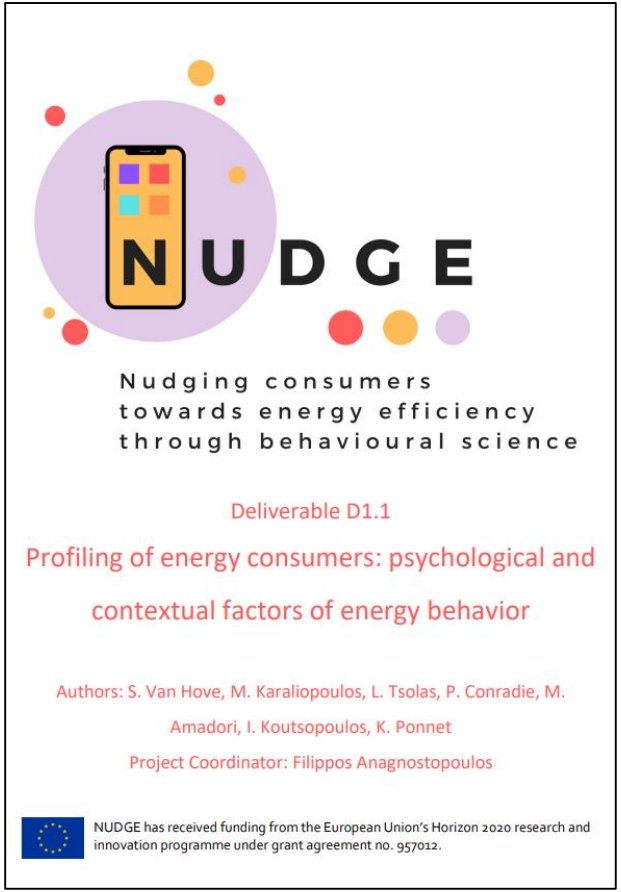
Profiling of energy consumers: psychological and contextual factors of energy behavior

- Report

Profiling and nudging energy consumers to heat efficiently

- Policy Brief
- Poster

Poster on NUDGE definitions and examples



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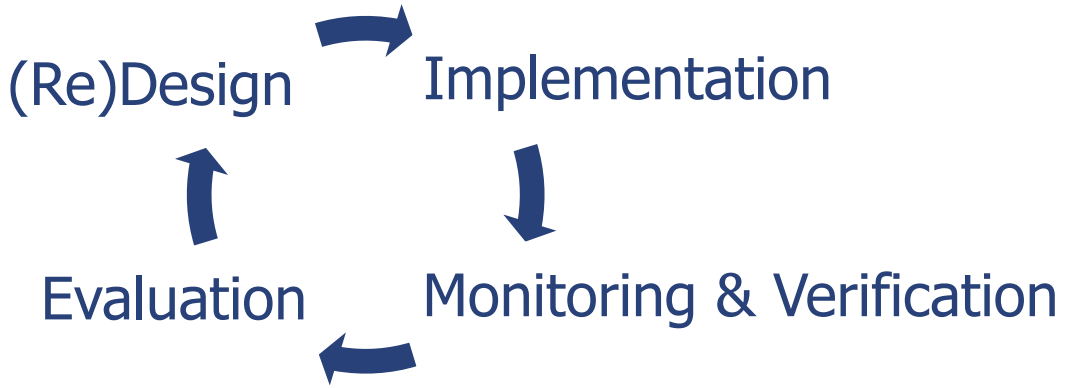
ENSMOV PLUS

ENSMOV Plus in a nutshell

- Support for the **implementation of Article 7 > 8 EED**
- Target groups: **public authorities & agencies, and stakeholders** (energy companies, ESCos, …)
- Scope: **whole policy cycle**



14 partners from 12 countries

8 public authorities, agencies or institutes

AUSTRIAN ENERGY AGENCY · KAPE · EIHP ENERGY INSTITUTE HRVOJE POŽAR · LITHUANIAN ENERGY AGENCY · MEKH Hungarian Energy and Public Utility Regulatory Authority · ΚΑΠΕ CRES · MINISTERUL ENERGIEI · Jožef Stefan Institute

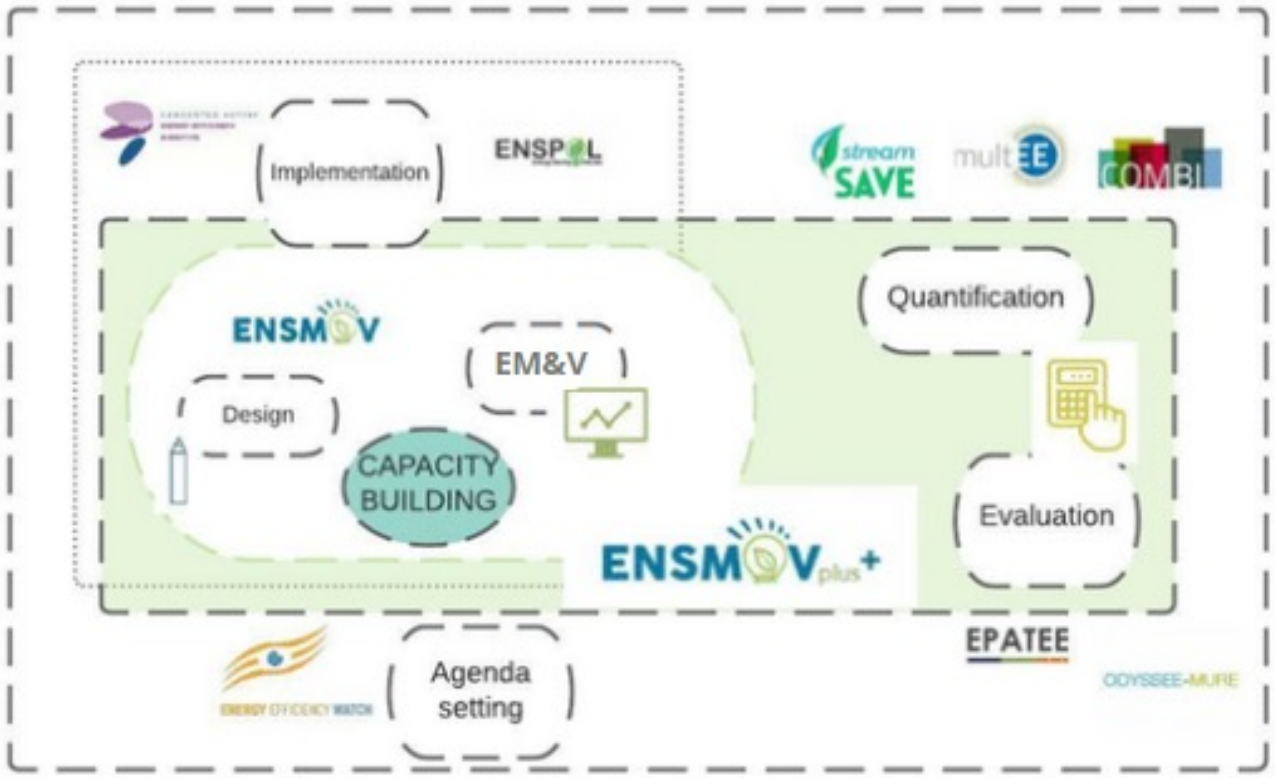
2 national associations of stakeholders

atee ASSOCIATION TECHNIQUE ENERGIE ENVIRONNEMENT · FIRE FEDERAZIONE ITALIANA PER L'USO RAZIONALE DELL'ENERGIA

4 research labs or think tanks

IEECP INSTITUTE FOR EUROPEAN ENERGY AND CLIMATE POLICY (Coordination) · RAP · Fraunhofer ISI · TEESlab University of Piraeus Research Center

Background



Objectives & outputs

➢ **Knowledge and experience sharing** (activities + online platform)

➢ **Tailored resources and tools**

➢ **Two tasks on modelling** (macro & micro)

NEW

✓ Effective **policy implementation**

✓ Enhanced **MRV systems & evaluations**

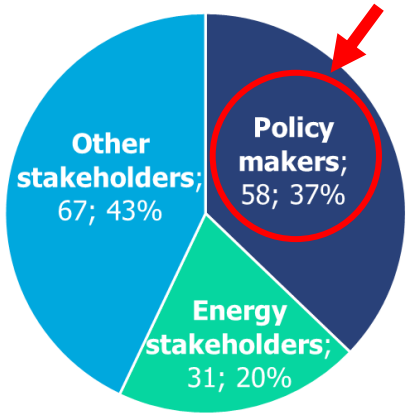
✓ Informed **(re)design of policies towards 2030**

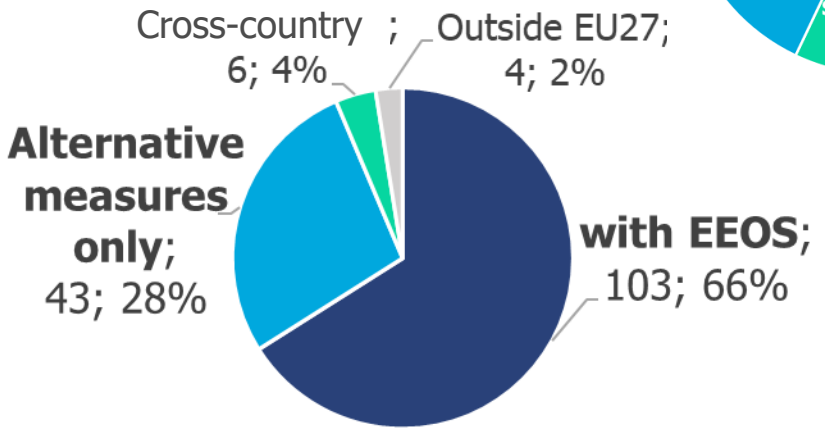
ENSMOV Plus' **online survey**

- ✓ identifying (and prioritizing) the specific **needs and challenges** of national stakeholders
- ✓ looking at issues about
  (1) design & implementation
  (2) monitoring & verification
  (3) evaluation

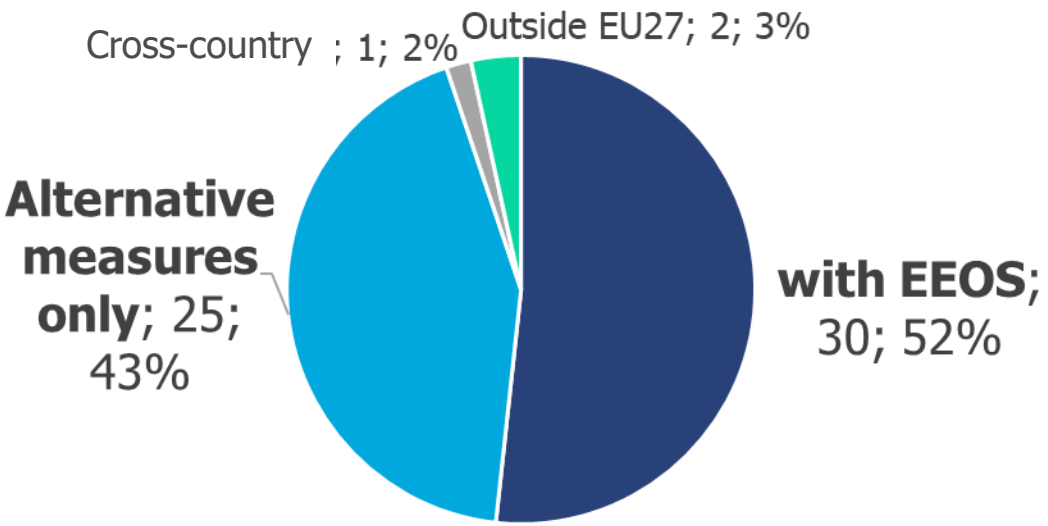
  } of the policy measures reported to Article 8 EED
- ✓ focus on changes brought by the **EED recast** / fit-for-55 package
- ✓ done in **February 2023**

156 respondents





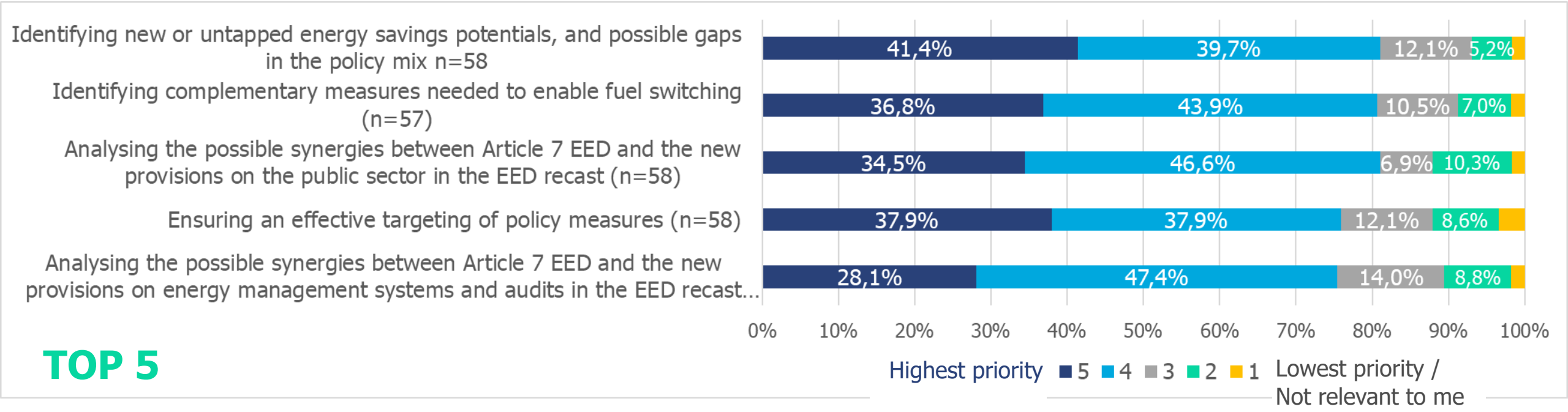
Focus on policy makers' answers



- ✓ balance between countries with alternative measures only, and countries with EEOS
- ✓ answers from 18 Member States + Kosovo and Macedonia

Priority topics for **policy design & implementation**

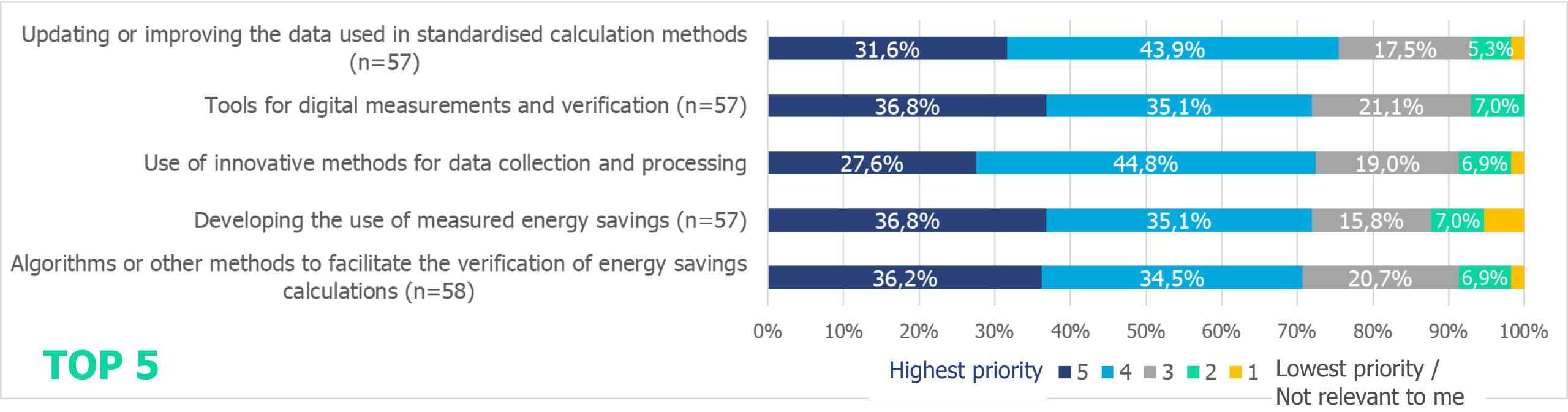
✓ 24 issues grouped in 5 categories (delivering higher targets / addressing energy poverty / pivoting away from fossil fuels / sectoral issues / other specific issues)



TOP 5

Priority topics for **monitoring & verification**

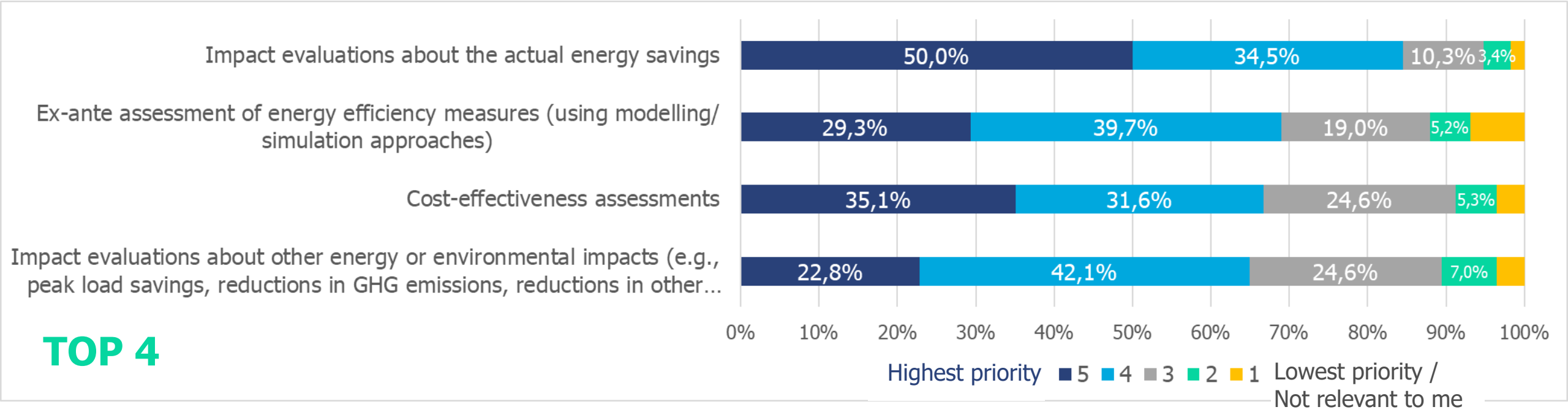
✓ 25 issues grouped in 3 categories (M&V purposes / M&V tools / other issues)



TOP 5

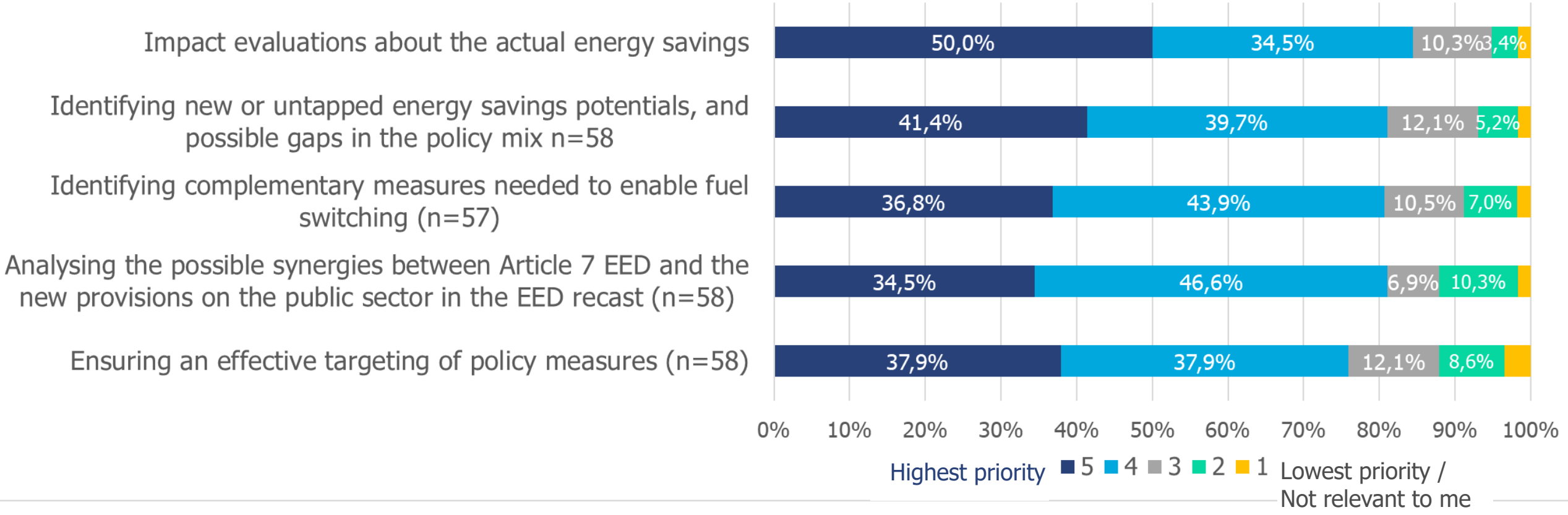
Priority topics for **evaluation**

✓ 18 issues grouped in 3 categories (evaluation scope & objectives / evaluation methods / other issues)



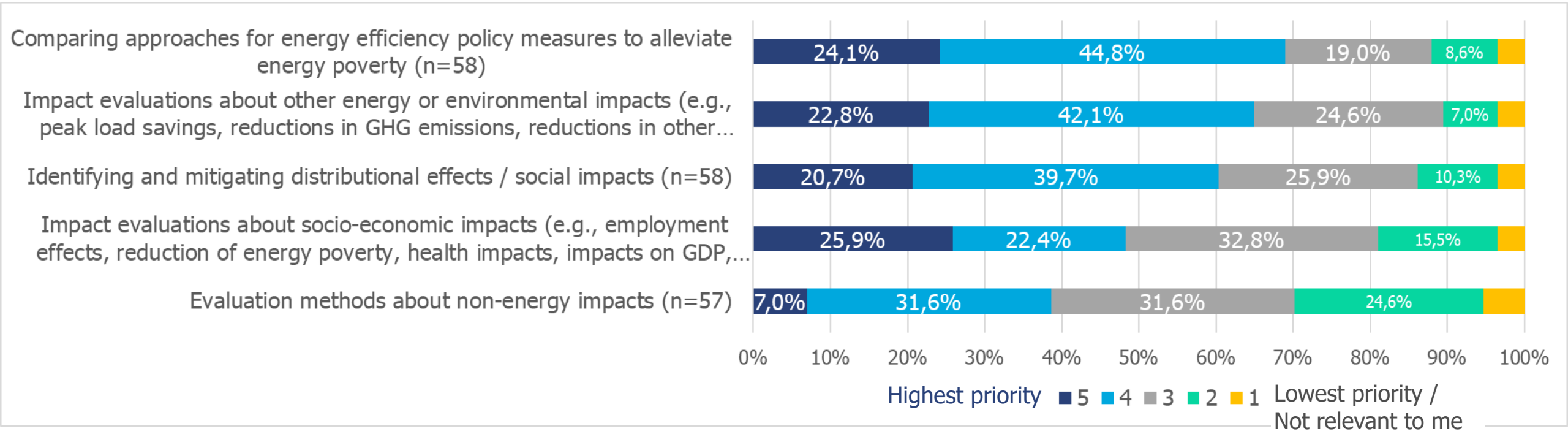
TOP 4

Overall top5



✓ 4 issues out of the top5 are about **policy design & implementation**

Issues related to **multiple impacts**



Possible reasons for lower interest in evaluation methods about non-energy impacts:

✓ Article 8 EED is focused on energy savings (hence higher interest in evaluating actual energy savings)

✓ Respondents may consider that the 'multiple impacts' topic is addressed by other projects (e.g. MICAT)

What's next

- ✓ **Full results and report** to be published in **April 2023**
- ✓ New resources and activities from May on

SAVE THE DATES

6 June 2023, Brussels (and online)

5 or 7 December 2023, Paris (and online)

ENSMOV Plus workshop with the release of the **update of the snapshots of EEOS and Alternative measures**

(back to back with the national seminar of the French white certificates scheme)

http://streamsave.eu/finalevent/

Thank you!

Contact: jsb @ ieecp.org

ENSMOV Plus

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https://ieecp.org/projects/ensmov-plus/

Our Platform: http://energysavingpolicies.eu/

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