



Supporting energy efficiency policies with the multiple impacts approach

A German, an Italian, a Polish, and an EU official walk into a stakeholder workshop

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General information

Geographic area: ⓘ

☐ The European Union

☐ A single country:

☒ A municipality in:

Time range: ⓘ

From to

Reference scenario: ⓘ

Parameter set: ⓘ

Use saved energy savings: ⓘ

Energy savings (in GWh)



Industrial sector

- Combined heat and power
- Waste-heat recovery
- Efficient compressed-air systems
- Efficient electric motors / variable speed drives
- Efficient pumping systems
- Efficient ventilation system
- Energy management systems (cf. ISO 50001)

2023

60

34

5

17

4



Residential sector



Tertiary sector



Transport sector

Export table

Import table

The MICAT project

Short description of the project and the associated MICATool

The MICAT project

- Assessment of multiple benefits
 - Quantification
 - Monetisation
- Aggregation of benefits
- Cost-benefit-analysis
- On EU, national, and local level



The MICAT project

ODYSSEE-MURE
MB:EE



The MICAT project

ODYSSEE-MURE
MB:EE



The MICAT project

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MB:EE



MICAT

Multiple Impacts Calculation Tool

Lessons from the previous projects

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MICAT
Multiple Impacts Calculation Tool



Perspective

Ex-post

Ex-ante

Ex-post and ex-
ante



Calculation

Functional
relationships

Modelling

Functional
relationships

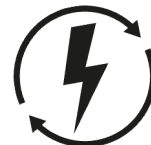


Inputs

Past data

Scenario

Whatever the
user types in



Celerity

Really quick

Better not be in a
hurry

Let's see ...

The MICAT project

ODYSSEE-MURE
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MICAT

Multiple Impacts Calculation Tool



Combining the fortes of
both projects

The MICAT project





Stakeholder involvement

—
Approach and results from the process

The three governance level

1

EU level

The three governance level

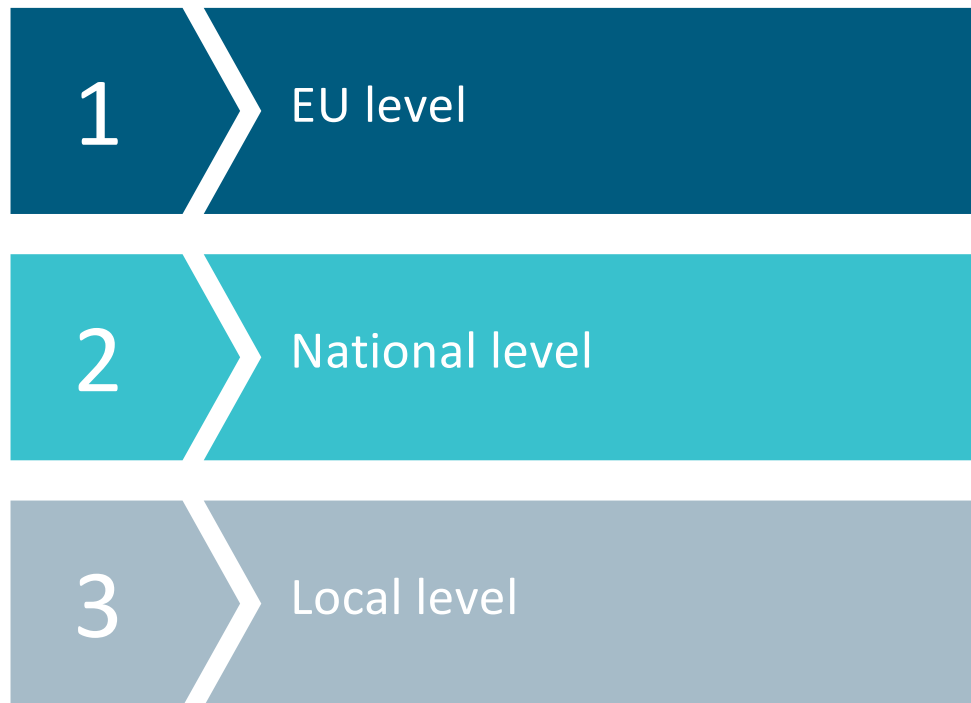


Pilot countries

- Germany
- Italy
- Poland

Support of national partners

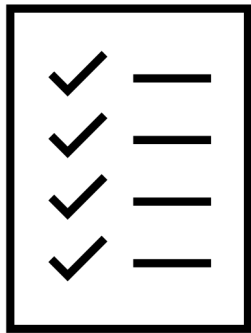
The three governance level



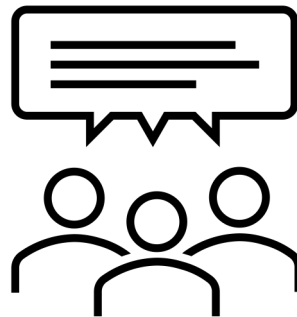
Pilot municipalities

- Calvia, Spain
- Tartu, Estonia
- Vitoria-Gasteiz, Spain

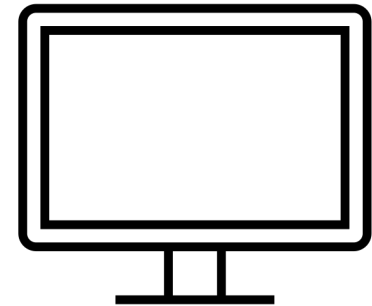
The three-step process



Introduction of the project and indicator preferences

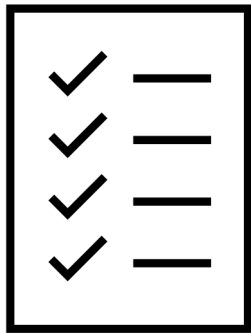


Discussion of an advanced mock-up to enable adjustments



Presentation and introduction into the use of the MICATool

The assessed round of workshops



Introduction of the project and
indicator preferences

Participants

- Policy makers
- NGOs
- Industry stakeholders

Questions

- Potential use cases and necessary functionalities
- Preferences regarding indicators

The main planned uses

The main planned uses



Assess measures, policies, and scenarios

The main planned uses



Assess measures, policies, and scenarios

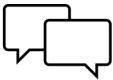


Communicate the benefits of energy efficiency

The main planned uses



Assess measures, policies, and scenarios



Communicate the benefits of energy efficiency

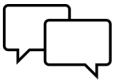


Examine the holistic cost-effectiveness and sustainability of investments

The main planned uses



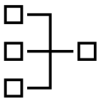
Assess measures, policies, and scenarios



Communicate the benefits of energy efficiency



Examine the holistic cost-effectiveness and sustainability of investments

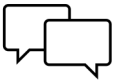


Add the MICATool to energy models

The main planned uses



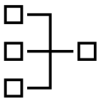
Main functions of the MICATool



Different views and dashboards in the MICATool to visualise results



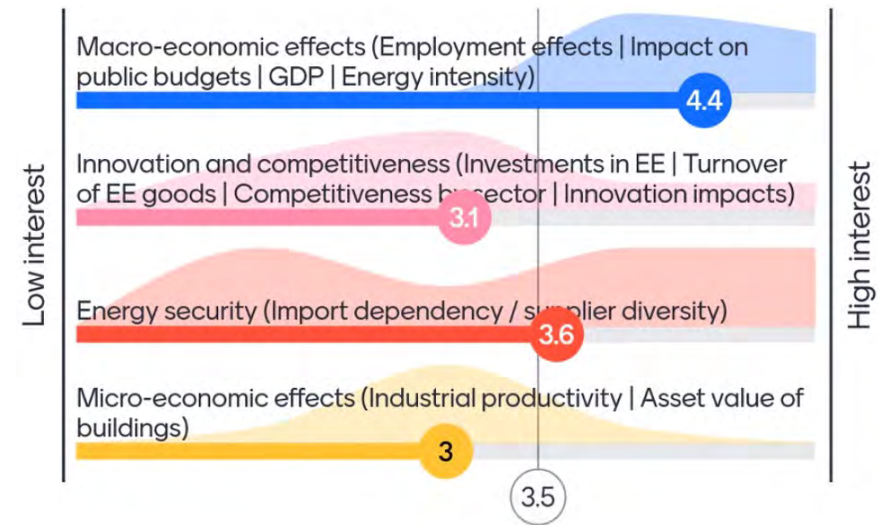
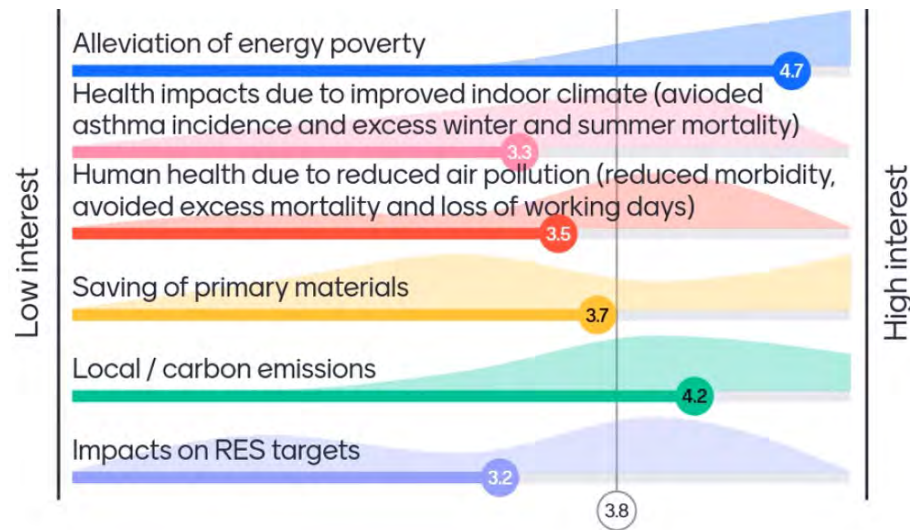
Inclusion of a cost-benefit-analysis function



Provision of an Application Programming Interface (API)

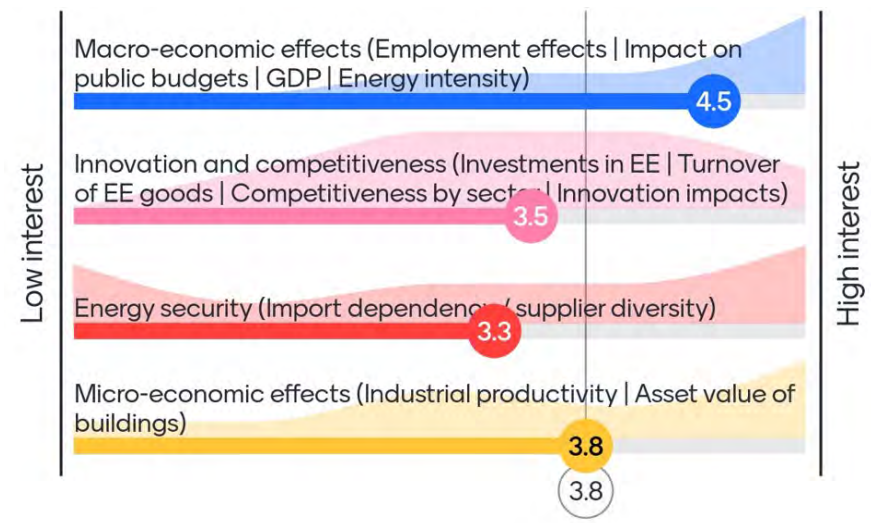
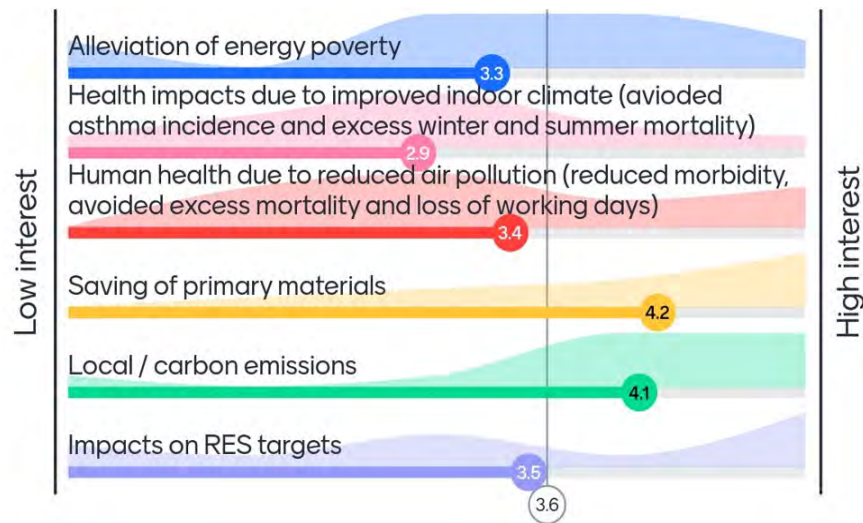
Preferences regarding indicators

EU workshop



Preferences regarding indicators

German workshop



Preferences regarding indicators

Aftermath of the municipal workshops

a. Number of electric vehicle charging points.

b. Kilometres of footpaths for pedestrians (natural and coastal).

a. Number of bike racks installed each year.

a. Number of municipal photovoltaic solar energy installations.

a. Number of people trained in energy saving and efficiency.

b. Number of awareness and sensitisation campaigns carried out.



RESULTS

Using the inputs from the workshops

Integrating and moderating the stakeholders' inputs in order to improve the MICATool

Bringing it all together

1

Comprehensivity and
variety of indicators

Bringing it all together

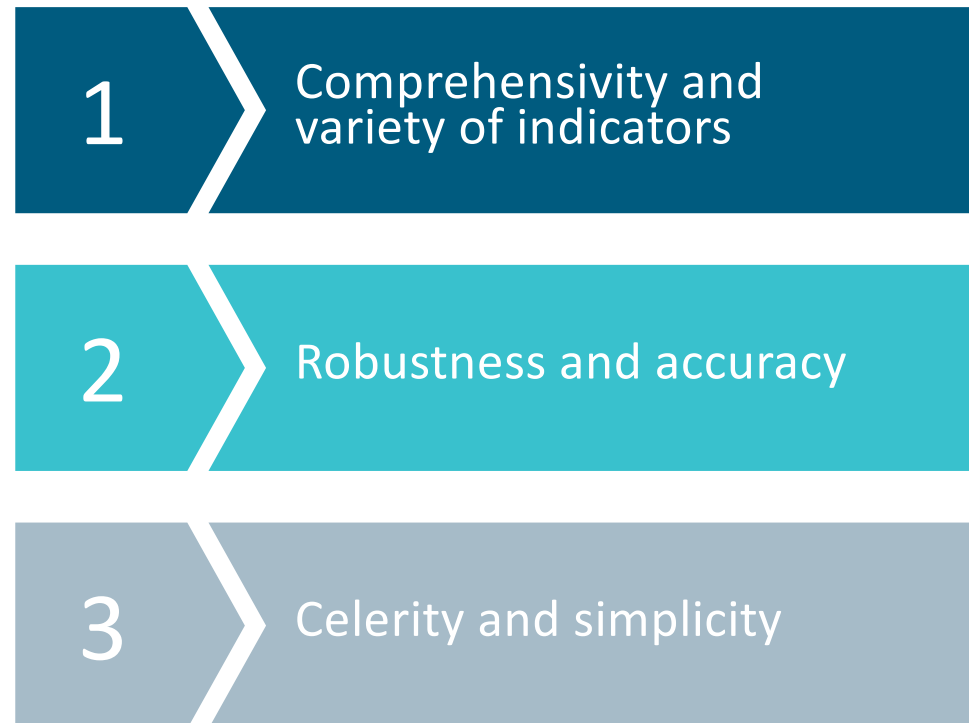
1

Comprehensivity and
variety of indicators

2

Robustness and accuracy

Bringing it all together



Bringing it all together

1

Comprehensivity and
variety of indicators



Multiple Impacts Calculation Tool

2

Robustness and accuracy

3

Celerity and simplicity

Pitfalls of stakeholder involvement

- 1 Miscommunication can lead to unmet expectations
- 2 Stakeholders can hamper other development processes
- 3 Can be rather one-sided discussions
- 4 Can be time-consuming without resulting in major outcomes

Benefits of stakeholder involvement

- 1 Brings in new ideas and perspectives
- 2 Gives a good impression of users' priorities
- 3 Keeps the future users posted and interested
- 4 (Probably/hopefully) ensures the tool will actually be used

Thanks a lot for your attention



*Informal session: tomorrow
at 15:00*