Final webinar of the **EPATEE project** as part of the **DSM University** series jointly organised with Leonardo ENERGY and ieadsm energy efficiency

EPATEE

Lessons learnt about evaluation practices for energy efficiency policies in Europe

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With acknowledgements to all EPATEE partners, and all stakeholders and experts who contributed to the project
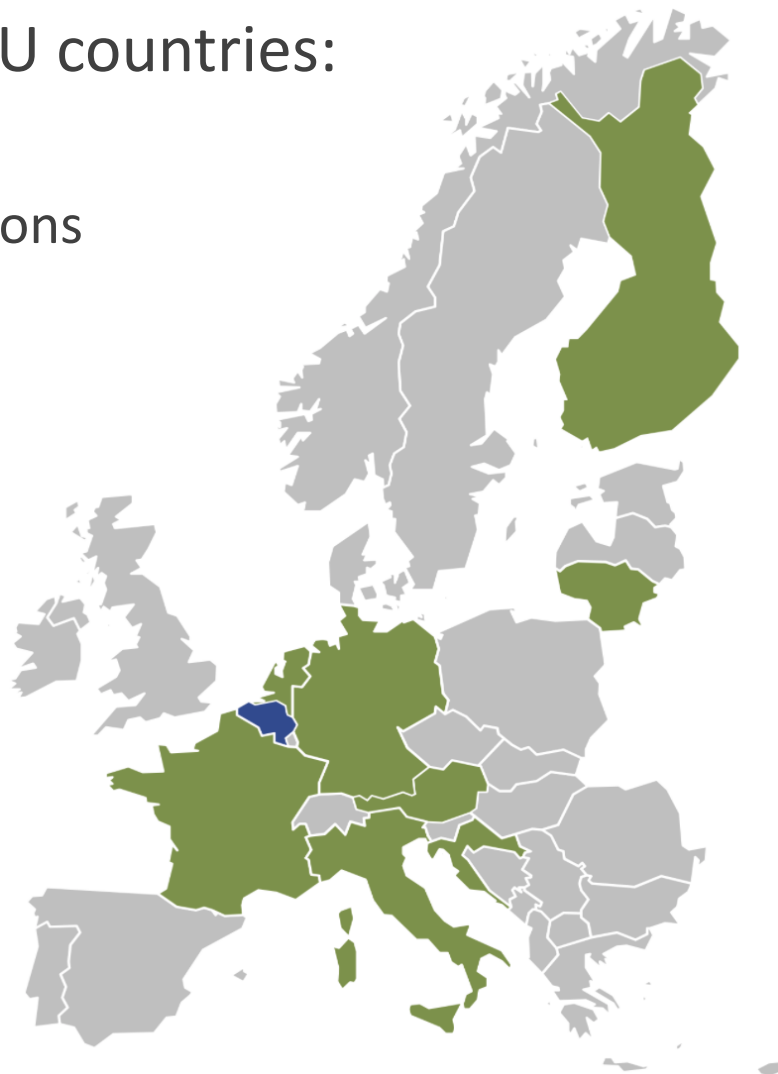
The EPATEE project

OBJECTIVE: creating favourable conditions for improving the number, quality/performance and effective use of ex-post impact evaluations of energy efficiency policies.

CONCEPT: improving key stakeholders' evaluation practices can lead to a better understanding/knowledge of impacts and how policies work, and thereby to increasing effectiveness of policies

Enhanced evaluation practices	Increased effectiveness of policies	More energy savings and GHG reductions
Short term impacts		**Long term impacts**

EPATEE consortium

10 partners from 8 EU countries:

✓ public agencies

✓ professional associations

✓ research institutes

https://epatee.eu/

coordination

AEA
Österreichische Energieagentur - Austrian Energy Agency

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

ATEE
Association Technique Energie Environnement

ECN
Energy research Centre of the Netherlands

EIHP
Energy Institute Hrvoje Pozar

FIRE
Italian Federation for Energy Efficiency

FRAUNHOFER
ISI Fraunhofer Institut für System- und Innovationsforschung

IEECP
Institute for European Energy & Climate Policy

LEI
Lithuanian Energy Institute

MOTIVA OY
Finland

The role of policy evaluation

➢ **What are the results or impacts?**
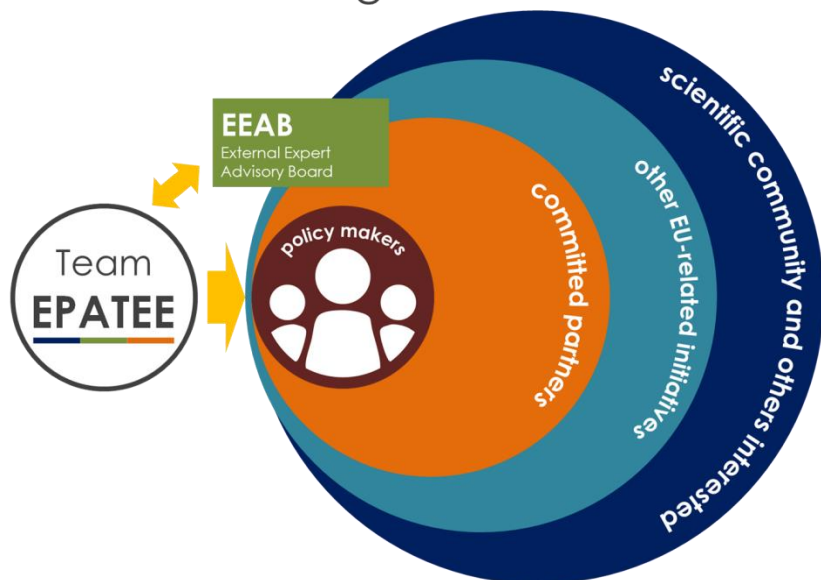Assessing and reporting results, effectiveness and efficiency of the policies, e.g.:

  ➢ accountability (e.g., to the Ministry of Finance, the Parliament or the Court of Auditors),
  ➢ monitoring target achievement,
  ➢ assessing cost-effectiveness of the policy measure,

➢ **What can we learn or improve?**
Examining what works, what does not work, looking for improvements and getting new ideas, e.g.:

  ➢ getting a feedback on the satisfaction about the scheme,
  ➢ understanding what worked (or did not work) as planned,
  ➢ providing inputs to the redesign or improvement of the scheme,

| Experience sharing webinars #1 part 1 and part 2	Stakeholders' survey #1	Toolbox – General principles	Presentation by Kathleen Gaffney

Stakeholder involvement

EPATEE's coverage

- Interviews with key stakeholders
- Surveys on evaluation practices
- EU peer-learning workshops
- National peer-learning workshops
- Webinars
- Direct support
- EPATEE newsletter
  https://epatee.eu/subscribe-our-newsletter

732 participants to all events

➤ 289 participants to dissemination webinars

➤ 143 participants to experience-sharing webinars

➤ 160 participants to peer-learning workshops

➤ 140 participants to national workshops

➤ Around 300 unique participants

➤ Plus direct support and visitors/users of website and online toolbox

➤ 30 presentations from external experts at EPATEE events
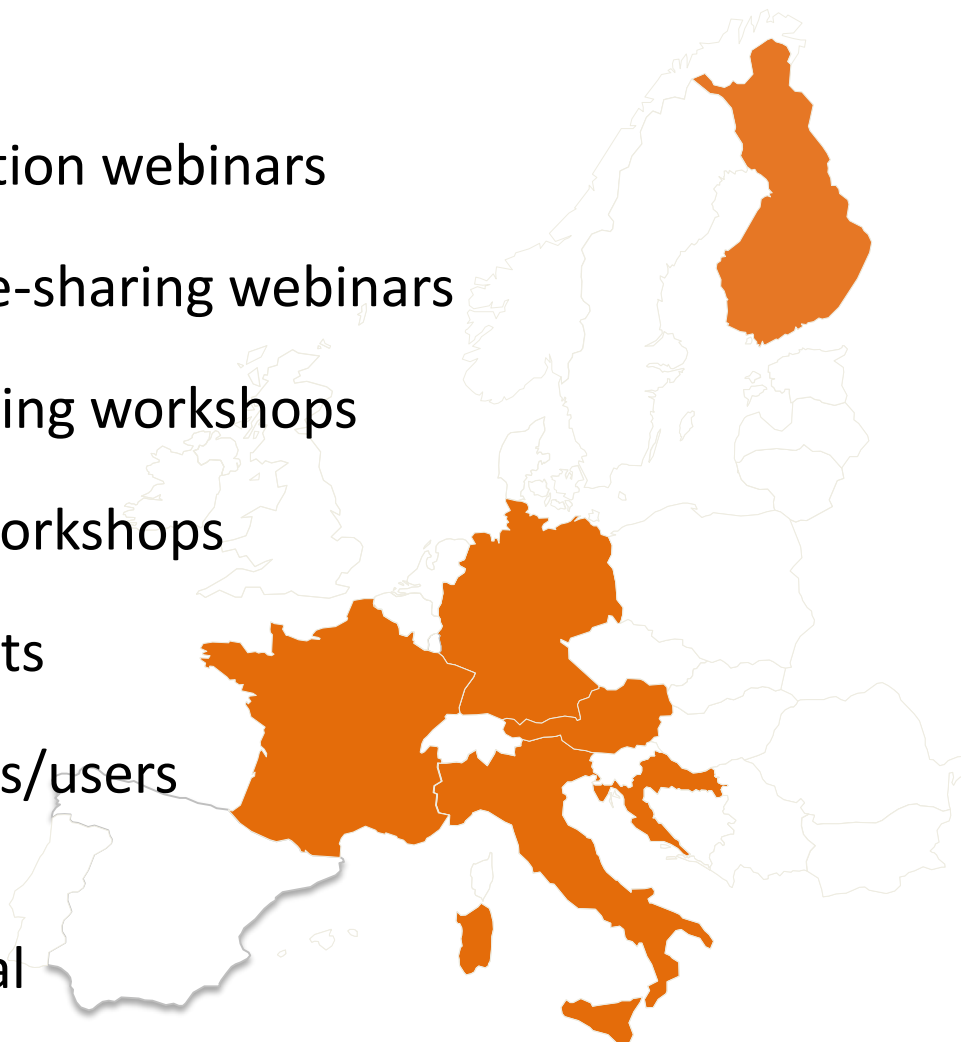
Online toolbox
making resources easy to use

Based on up-to-date knowledge and concrete experiences

Knowledge Base
(user-oriented database of references)

Case studies
(about ex-post evaluations)

Further sources

Online toolbox
making resources easy to use

https://www.epatee-toolbox.eu/

EPATEE
Knowledge Base

SEARCH BY CATEGORIES | MORE SEARCH OPTIONS

New

Knowledge Base

SEARCH BY AUTHOR
SEARCH BY TITLE

All entries coded according to a set of criteria
→ Enabling **filters for tailored searches**

Search by Categories

Year of publication

1984 ●────────────────● 2019

Language
None selected ▾

Study type
None selected ▾

Type of policy instrument
None selected ▾

Sector
None selected ▾

Geographical scope
None selected ▾

⌄ ADVANCED SEARCH

Evaluation type
None selected ▾

Objective of evaluation
None selected ▾

Data Collection
None selected ▾

Calculation method
None selected ▾ ⓘ

Baseline / counterfactual
None selected ▾

Savings data presentation
None selected ▾

Normalisation factors
None selected ▾

Effect adjustments
None selected ▾

Cost data
None selected ▾

Uncertainty analysis
None selected ▾

Other impacts
None selected ▾

Case Study available
None selected ▾

SEARCH   CLEAR ALL

➢ Updated this summer: now **258 entries**!

(+ short summary for non-English references)

New

Background information

Attachment

📄 EPATEE : introducing the case studies in 5 slides

📄 EPATEE: Terminology and typologies used in the case studies

📄 Evaluation into Practice: Lessons learnt from 23 evaluations of energy efficiency policies | Volume I - Main findings

📄 Evaluation into Practice: Lessons learnt from 23 evaluations of energy efficiency policies | Volume II - Background report

Case studies about examples of evaluations

These case studies present how policy measures have been evaluated, including an interview with the evaluat customer and/or lead evaluator.

Country	Sector	Type of instrument	
- Any -	- Any -	- Any -	Apply

Country	Name of the measure	Sector	Type
Austria	City Energy Efficiency Programmes of Vienna	Transversal	Policy mix
Austria	Environmental Support' (UFI: Umweltförderung im Inland)	Industry and services	Financial
Belgium	Primes Energie (grants for energy renovation)	Residential	Financial
Croatia	Individual heat metering in multifamily buildings	Residential	Information/ Education
Croatia	Energy renovation of public sector buildings programme	Services	Financial

+ lessons learnt from their review

23 case studies about examples of evaluations

New
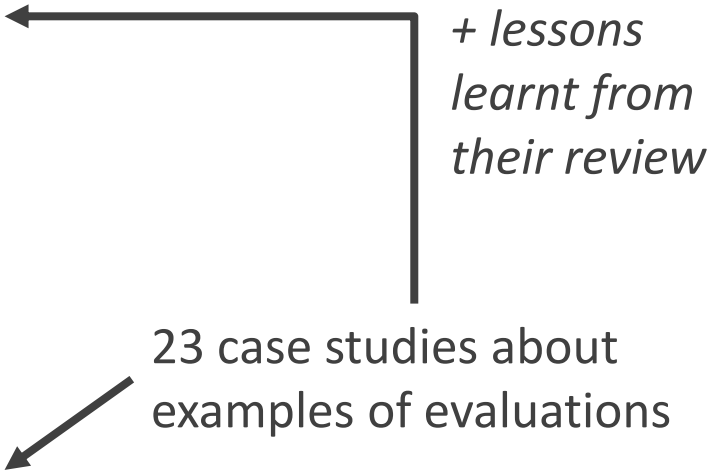
+ Topical case studies

These case studies are focused on evaluation issues that have been high challenges in terms of evaluation practices. They include a targeted litera

- Linkage between monitoring and evaluation
- Evaluating net energy savings
- Comparing estimated vs measured energy savings

EPATEE online toolbox

Overall objective:

– Develop a smart online toolbox with information and guidance for practitioners on integrating evaluation practice in the policy cycle for energy efficiency policies.

Target groups

– Primarily policy makers and evaluators, who are not necessarily experts in the field of evaluations and/or energy efficiency

The online toolbox offers

– General guidelines and 'best practices' examples on energy efficiency policy evaluation

– Guidance on logical steps of an evaluation

– Guidance on evaluation methodologies

– Guidance on different types of impacts

– Practical examples, with references

– do's and don'ts

– per sector, per policy measure, in different countries

– Recommendations and support on energy efficiency policy design

– Further readings

The structure of the EPATEE online toolbox

EPATEE
Online Tool Box

Home   Wizard   Search   Contact

Online tool for putting evaluation of energy savings into practice

This website provides practical tools and guides to facilitate the uptake of good evaluation practices according to various needs.
The tools are meant to help step by step both evaluators and users of evaluation results in specifying the evaluation methods and effects, through:
– Providing a smart online toolbox with tools for integrating evaluation practice in the policy cycle.
– Clarification of how tools can be best applied by means of guidelines

Evaluation principles & methods	Specific evaluation guidance	Knowledge base & case studies
Select this box if you have questions about evaluation principles, about why and how to plan & prepare evaluations or about cross-cutting issues.	Select this box if you have questions related to the evaluation of a specific combination of policy instrument, sector and/or a certain type of evaluation method.	Select this box if you looking for practical examples or references to additional information.

A policy officer wants to compare several proposals received for an upcoming evaluation

Or an evaluator looks for examples and pros & cons of different methods for a given situation

Specific evaluation guidance

Type of policy

- ☐ Legislative/Normative
- ☐ Legislative/Informative
- ☐ Financial support
- ☐ Fiscal/Tariffs
- ☐ Information/education
- ☐ Voluntary and Cooperative
- ☐ Market based instruments

Sector

- ☐ Buildings/residential
- ☐ Buildings/non-residential
- ☐ Households appliances
- ☐ Services devices
- ☐ Industry/specific
- ☐ Industry/general
- ☐ Agriculture
- ☐ Freight transport
- ☐ Passenger transport

Type of method

- ☐ Measurement
- ☐ Deemed savings
- ☐ Engineering estimate
- ☐ Stock Modelling
- ☐ Billing analysis
- ☐ Diffusion indicator
- ☐ Energy indicator sector
- ☐ Energy indicator equipment
- ☐ Econometric modelling
- ☐ Econometric price elasticity

1. USE OF THE TOOL

2. SCOPE OF THE TOOL

3. EVALUATION REQUIREMENTS

Why/when this method can be relevant (according to the policy's and sector's specificities)

4. APPLICATION FOR CALCULATION OF SAVINGS

5. INPUT AND OUTPUT

How this method can be used
(e.g., baseline, normalization/ adjustment factors, data requirements)

6. ALTERNATIVE FOR CHOSEN METHOD

Pros & cons vs. other methods

7. ADDITIONAL EVALUATION RESULTS

Going beyond energy savings

8. CONCRETE EXAMPLES

References for more details
(examples, guidebooks, dealing with specific issues, etc.)

9. FURTHER READING

A policy officer not yet familiar with evaluation, who wants to get some insights about its added value

An evaluation expert struggling to make evaluation integrated in the practices of her institution

Evaluation principles & methods

General principles → Terminology, general concepts, different evaluation approaches, etc.

Process of evaluation → Why doing evaluations, how to prepare evaluations, how to integrate evaluation in the policy cycle

Cross-cutting issues → Issues relevant for most types of situation (e.g. evaluating net energy savings)

Key message from existing practices| the process

Evaluation priorities depend on who the **primary audience** is

Evaluation is not a burden, but an **opportunity**

Evaluation helps increasing **stakeholders' confidence** in the schemes

"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" (quote from the Irish case study)

Communication about evaluation results can be as important as doing the evaluation

Regular review and **in-depth** ex-post evaluations are complementary

Key message from existing practices| the method

Well-documented data is good data

The **choice of evaluation methods** depends on evaluation objectives and practical constraints

Monitoring and data collection are essential for making any evaluation possible

Selecting the most relevant data to collect is a **continuous process**

"In reality, if two persons carry out impact evaluation of the same policy measure, they get different results. Even if I make the same calculation in successive years without proper documentation of the calculation method and definitions, the calculation can be different. This highlights the needs for good logic and documentation." (quote from the Finnish case study)

Evaluating **net impacts** is a challenge, but **essential** to assess the efficiency of policies

Comparing different methods helps assessing the robustness of the results

About the methods
Focus on bottom-up methods to assess energy savings

Regular reviews and in-depth ex-post evaluations = a good mix !

Regular reviews

✓ Providing data for annual reporting

✓ Quick feedback loop

✓ On-going fine-tuning

Evaluation questions & priorities

Update monitoring practices

Ex-post evaluations

✓ When needed

✓ Investigating specific issues

✓ Possible re-design or major update

FI – Voluntary agreements

DK – Energy Efficiency Obligation scheme

"If there are problems, we need to know where those are. It is another question if we can interfere, but we must know and understand the situation."
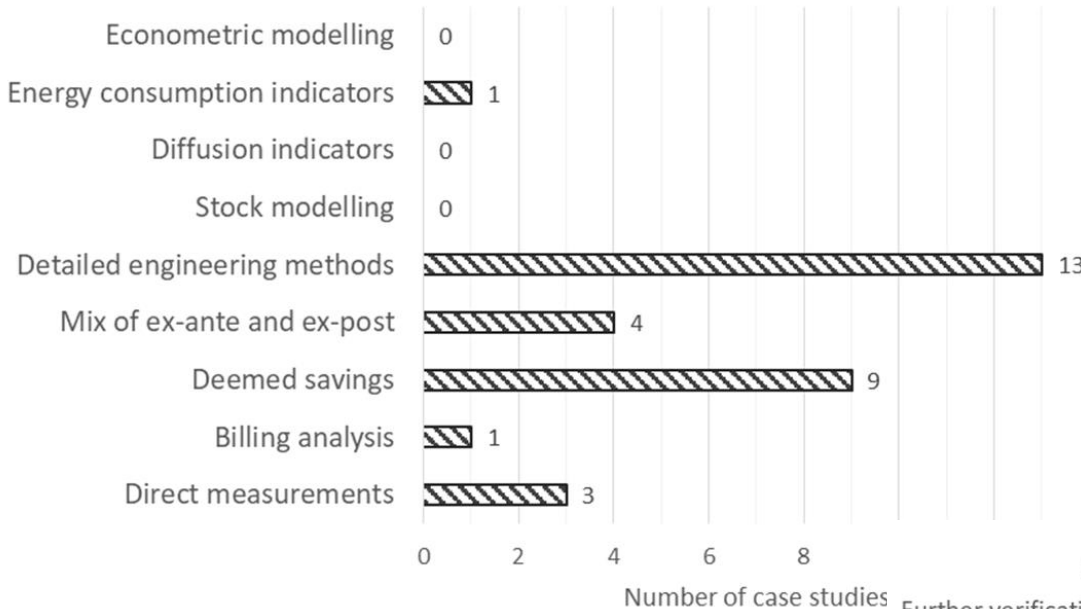
"The ex-post evaluations are used to complement the monitoring of the scheme when preparing a revision of the agreement for the scheme."

Different timing and objectives → Different methods

Regular monitoring

Engineering methods

Ex-post evaluations or studies

Further verifications

Billing analysis

+ it's not all about quantifying impacts !

How do engineering estimates and metered data compare?

➡ Growing basis of evidence about **discrepancies**

Possible reasons for the differences:

Engineering methods

Prebound effect

Rebound effect

Performance gap

Lack of calibration

Building stock

Behaviours

EE actions

Billing analysis

Sampling bias

Weather corrections

Changes other than the EE actions

+ data quality

+ calculation **errors**

+ possible differences in **scope** (e.g. gross vs. net savings)

➡ None of the method gives "more real" savings

Both provides interesting results

How do engineering estimates and metered data compare?

- Most studies show "metered savings" **<** "modelled savings" **on average**

- On average = there are cases in both senses ("<" and ">")

- Analysing the reasons for differences often require additional data, so not always possible

UK – Energy Company Obligation

In-use factor to take into account:
- ✓ performance gap
- ✓ rebound effect

+ **NEED** (National Energy Efficiency Data-framework) used to update the deemed savings

Croatian example about monitoring & evaluation tools

Connection between:
- ✓ The System for Measuring and Verifying Energy Savings (**SMiV**) → engineering estimates; and
- ✓ the Energy Management Information System (**ISGE**) → metered energy consumption

About the process of evaluation
Focus on integrating evaluation into policy management
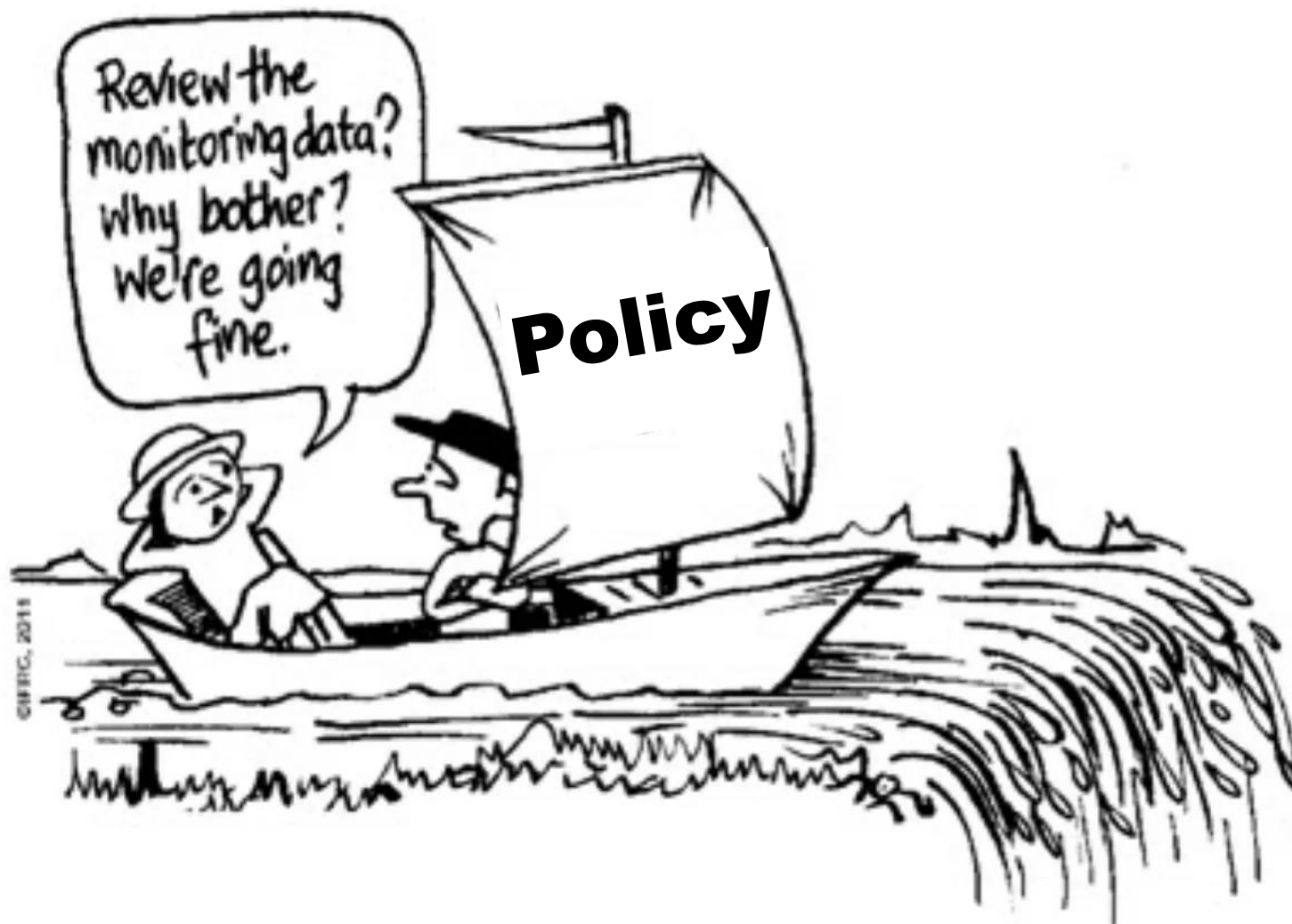
REMEMBER M&E INFORMATION IS USEFUL ONLY IF IT IS USED!

Evaluation & the policy cycle: what stakeholders say

*"Through evaluation we can **address several issues in the policy cycle**, such as how a policy has been implemented, who, how and why has it been affected, if savings have been achieved and determine **where it needs to be adapted, continued or ended**."*

*"**Evaluation should follow the whole policy cycle** and be used in the planning as well as in the controlling (results) of the policy. Systems that incorporate this comprehensive approach seem to be **more successful**."*

*"During the design of a policy, an evaluation advisor should be present to ensure a good ex-post evaluation (e.g. if the data collection is not well designed it is somewhat very difficult to evaluate the policy or at a large cost - which is somehow the reason for a lack of evaluation), the design should be '**evaluation-friendly**' ."*

EPATEE 1st survey

Evaluation & the policy cycle: A two-way integration

What inputs should policy developments provide to evaluation?
(+ when and how?)

Policy developments → **Evaluation**

What inputs should evaluation provide to policy making?
(+ when and how?)

Integrating evaluation into the policy cycle

Dedicated report

Issues / barriers to this integration
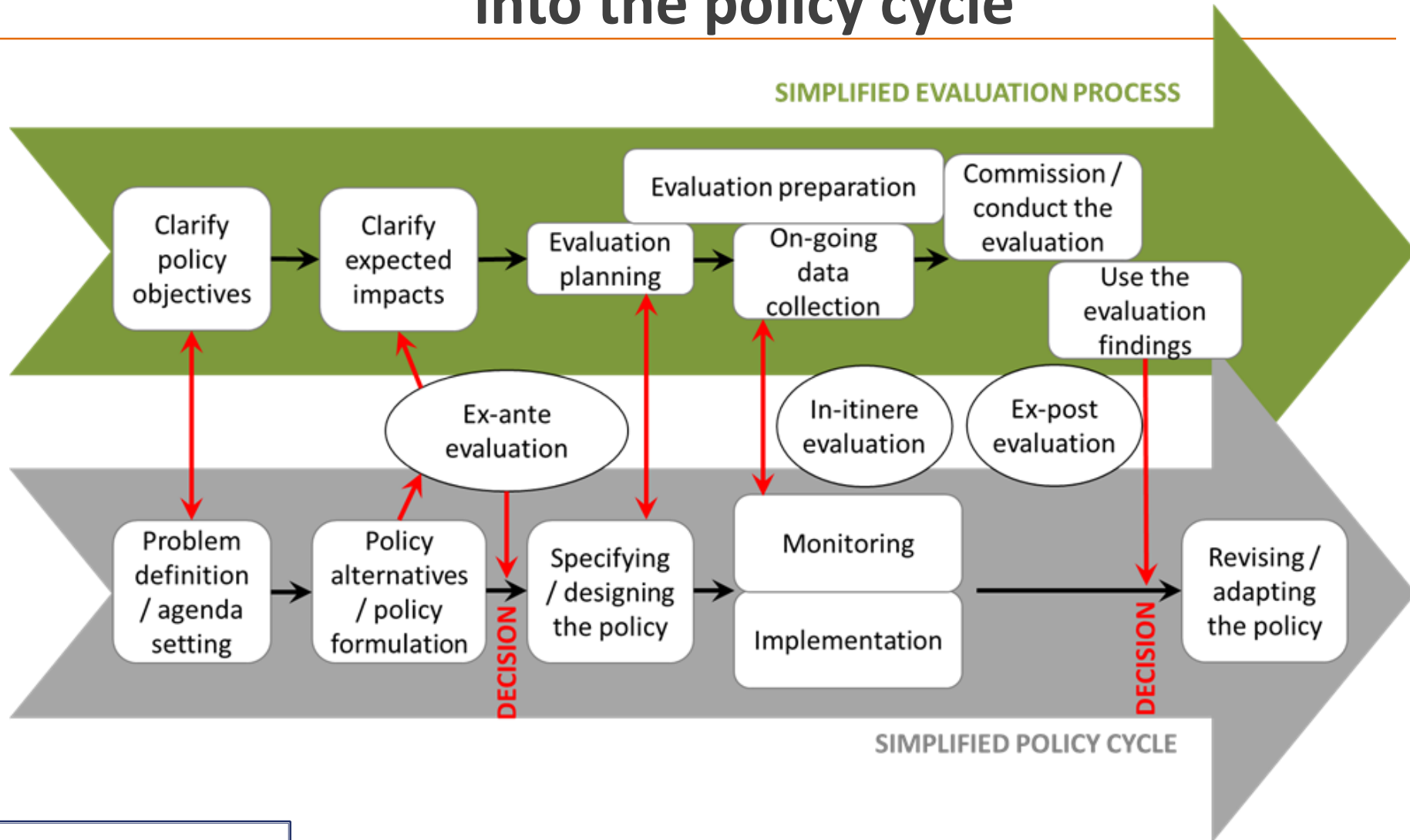
Political will (top-management commitment)

Examples of barriers:
Lack of interest, fear of the results, evaluation not always needed, turnover in the policymakers

Resources allocation (time, people, budget)

Examples of barriers:
Lack of dedicated budget, lack of time to be involved or involve people in the evaluation process

Evaluation planning and preparation

Examples of barriers:
Difficulties to match timeframe for evaluation and timeframe for decision processes

Communication and mutual understanding

Examples of barriers:
differences in the cultures or habits between decisional level and operational or technical level

Political will (top-management commitment)

- ✓ **Clarify expectations**: what evaluation can bring and how it can be used
- ✓ Analyse **how evaluation can fit in** the current policy framework and processes
- ✓ **Mandatory provisions** for evaluation

Resources allocation (time, people, budget)

- ✓ **Discuss evaluation means** when deciding the budget for the policy measure
- ✓ Define **criteria to assess the needs** in evaluation means

How to put it in practice

Examples about Communication and mutual understanding

SHORT-TERM ACTIONS	Purpose(s)
Make sure the right contacts are identified for each party to be involved	• Ensure an easy communication along the evaluation process
Clarify the evaluation objectives, and organise a feedback loop (when relevant)	• Ensure a shared understanding of the evaluation objectives (and thereby realistic expectations)
Facilitate exchanges between policymakers, practitioners/implementers and analysts/evaluators	• Maintain regular contacts between the evaluation team and evaluation recipients • Ensure a mutual understanding • Take into account differences in viewpoints • Foster closer collaboration between policymakers & officers and analysts & evaluators

MEDIUM-TERM ACTIONS	Purpose(s)
Maintain an updated list of contacts from the different services and bodies involved in the different stages of the policy	• Maintain regular contacts • Facilitate an easy communication • Avoid missing or outdated links in the communication loops
Facilitate capacity building and experience sharing about evaluation issues (e.g., targeted workshops or trainings; technical briefs; testimonies about past evaluations)	• Increase awareness and knowledge about evaluation

Take-aways

➢ New **online resources** to help you about evaluation issues:

Knowledge Base – Case studies – Toolbox

➢ **Documentation** essential for transparency and usefulness of evaluation findings

➢ Overall, very positive feedback about doing evaluations (and many examples about how it helped to improve policies)

➢ **Evaluating is not wasting: think about how much it would cost you not to evaluate!**

https://epatee.eu

Thanks for your attention

Give us **your feedback**
about the project and its resources:
https://tinyurl.com/epatee

Contribute to the debates / exchanges about evaluation:
Don't miss the **Call for Abstracts** of **Energy Evaluation Europe 2020**
(formerly IEPPEC): deadline = **14th of October**

→ https://**energy-evaluation.org**

EPATEE

AEA
Österreichische
Energieagentur -
Austrian Energy
Agency

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

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Finland

ENERGY
EVALUATION
EUROPE

2020 Conference
Here East, Olympic Park, London
Monday 29 June to Wednesday 1 July 2020

Formerly
IEPPEC

Accelerating the energy transition for all: Evaluation's role in effective policy making