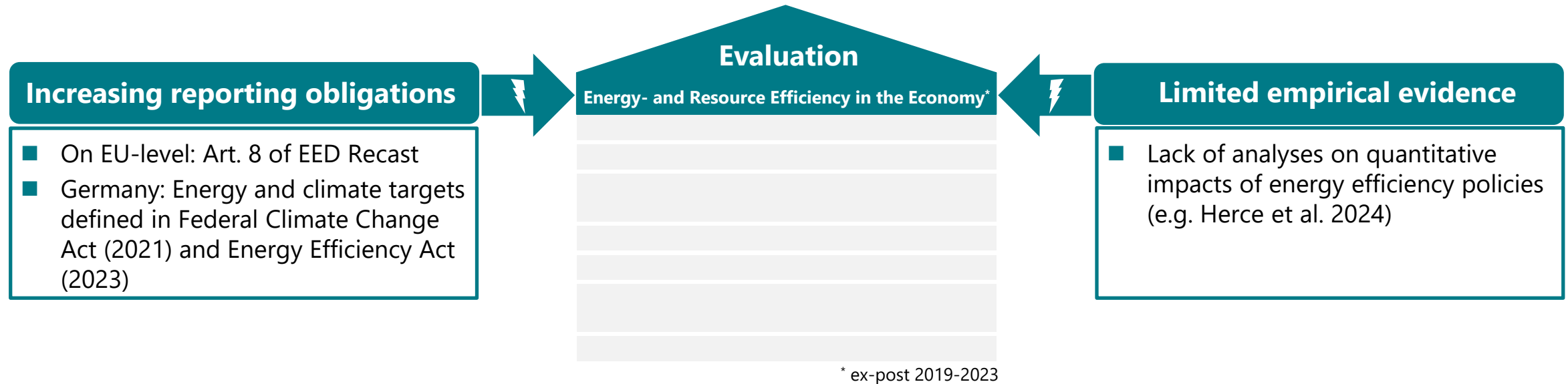


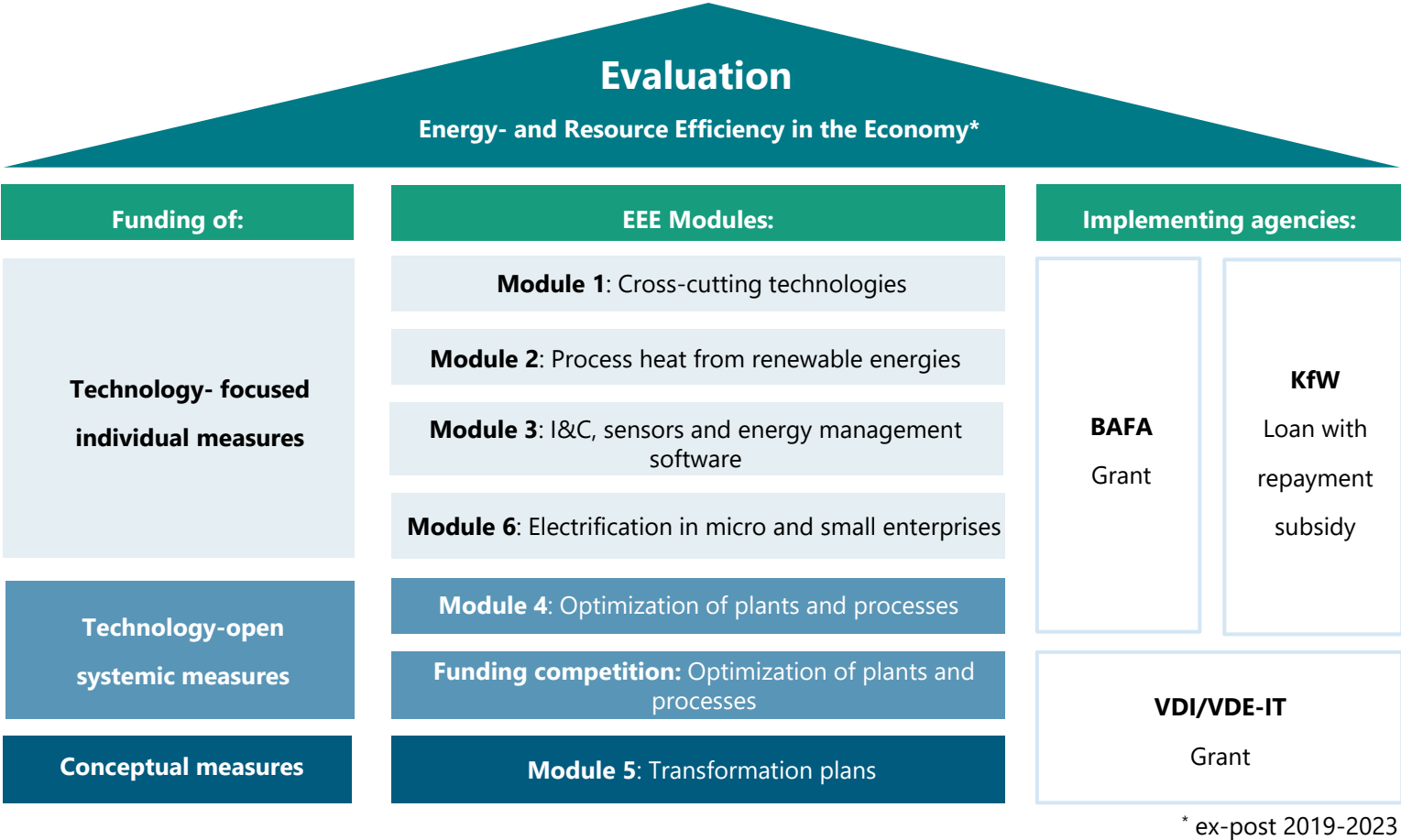
Results and recommendations from a five-year evaluation of Germany's flagship programme for energy and resource efficiency in industry

Lisa Neusel & Simon Hirzel

Despite increasing reporting obligations, evaluation evidence remains limited



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55,342
funded
projects



2.9 billion
euros in subsidies
paid out

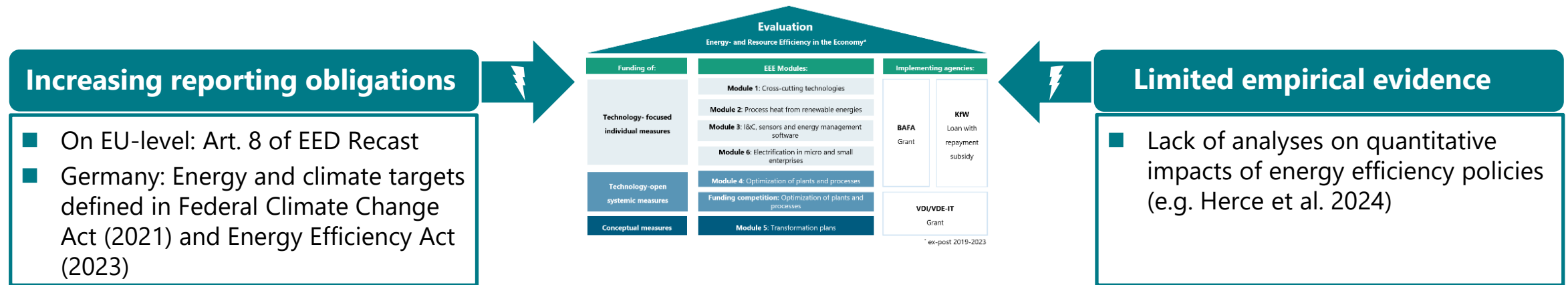


9.7 billion
euros in triggered
investments



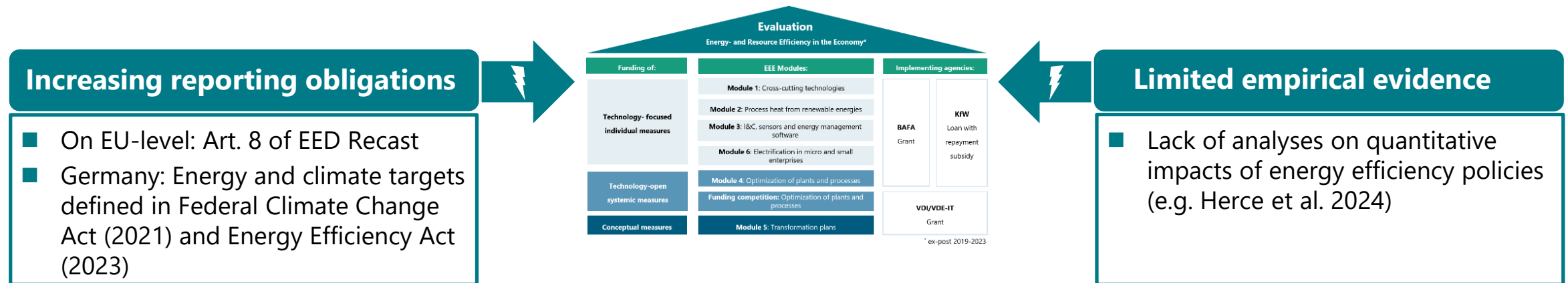
Source: Based on BMWK (<https://energiewechsel.de/KAENEf/Redaktion/DE/Dossier/eew-energie-und-ressourceneffizienz-in-der-wirtschaft.html>)

Despite increasing reporting obligations, evaluation evidence remains limited



1 Five-year KPIs of EEE: What is the impact?

Despite increasing reporting obligations, evaluation evidence remains limited



- 1 **Five-year KPIs of EEE: What is the impact?**
- 2 **What can we learn for future programs?**

The evaluation is based on six blocks of key performance indicators

Key performance indicators (KPI)

(G) General knowledge interest

(A) Target achievement

(B) Effectiveness

(C) Economic efficiency

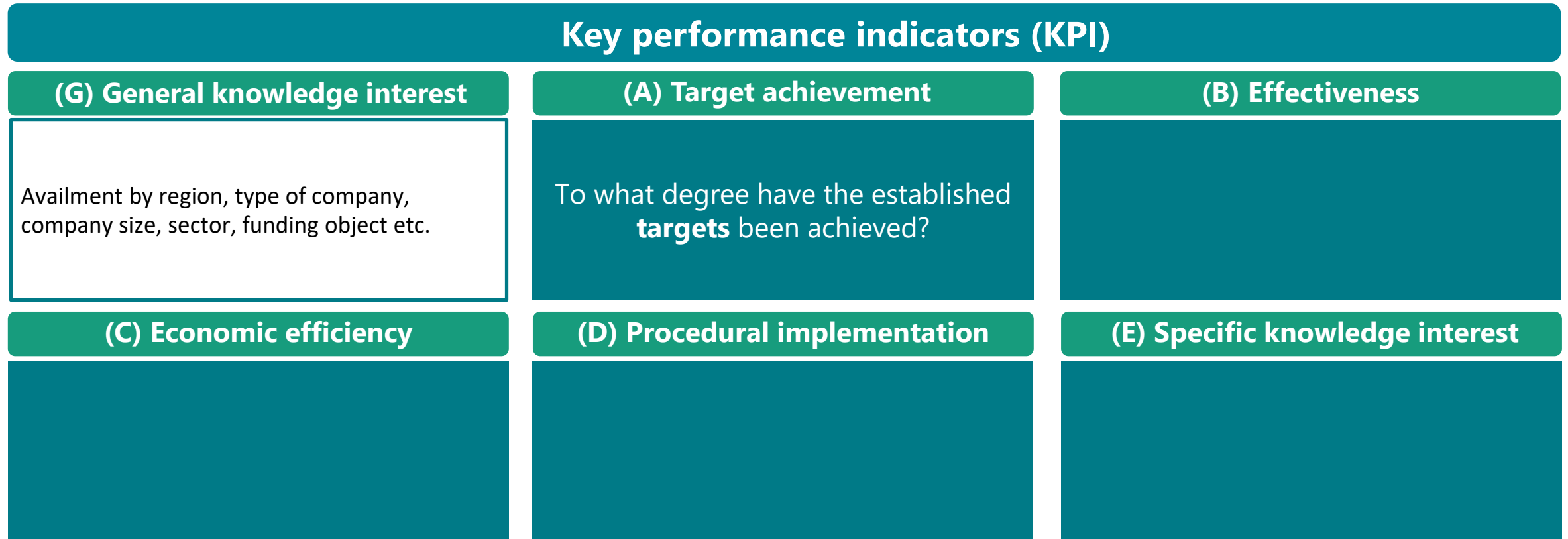
(D) Procedural implementation

(E) Specific knowledge interest

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Key performance indicators (KPI)		
(G) General knowledge interest	(A) Target achievement	(B) Effectiveness
Structural data on applications, approvals and funding		
(C) Economic efficiency	(D) Procedural implementation	(E) Specific knowledge interest

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The evaluation is based on six blocks of key performance indicators

Key performance indicators (KPI)

(G) General knowledge interest

Availment by region, type of company, company size, sector, funding object etc.

(A) Target achievement

Reduction in

- final and primary energy consumption
- GHG-emissions
- energy and resource costs

(B) Effectiveness

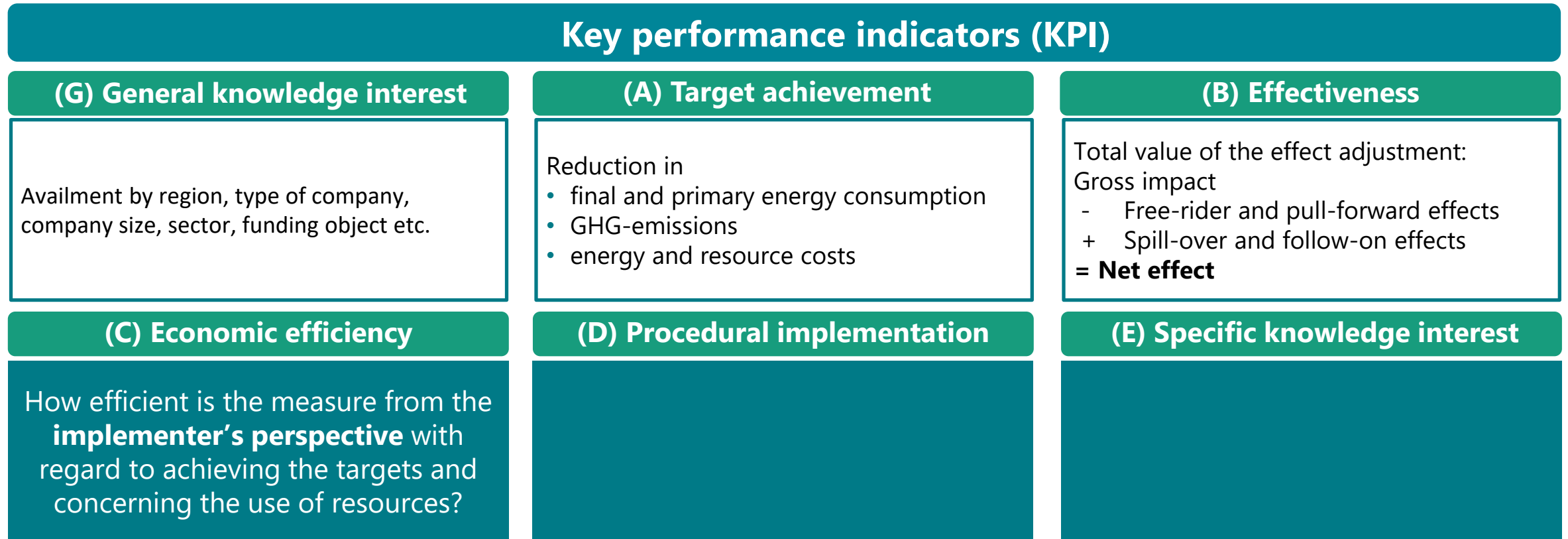
To what degree is the measure **causal** to the achievements?

(C) Economic efficiency

(D) Procedural implementation

(E) Specific knowledge interest

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The evaluation is based on six blocks of key performance indicators

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Reduction in

- final and primary energy consumption
- GHG-emissions
- energy and resource costs

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Total value of the effect adjustment:

Gross impact

- Free-rider and pull-forward effects
- + Spill-over and follow-on effects

= **Net effect**

(C) Economic efficiency

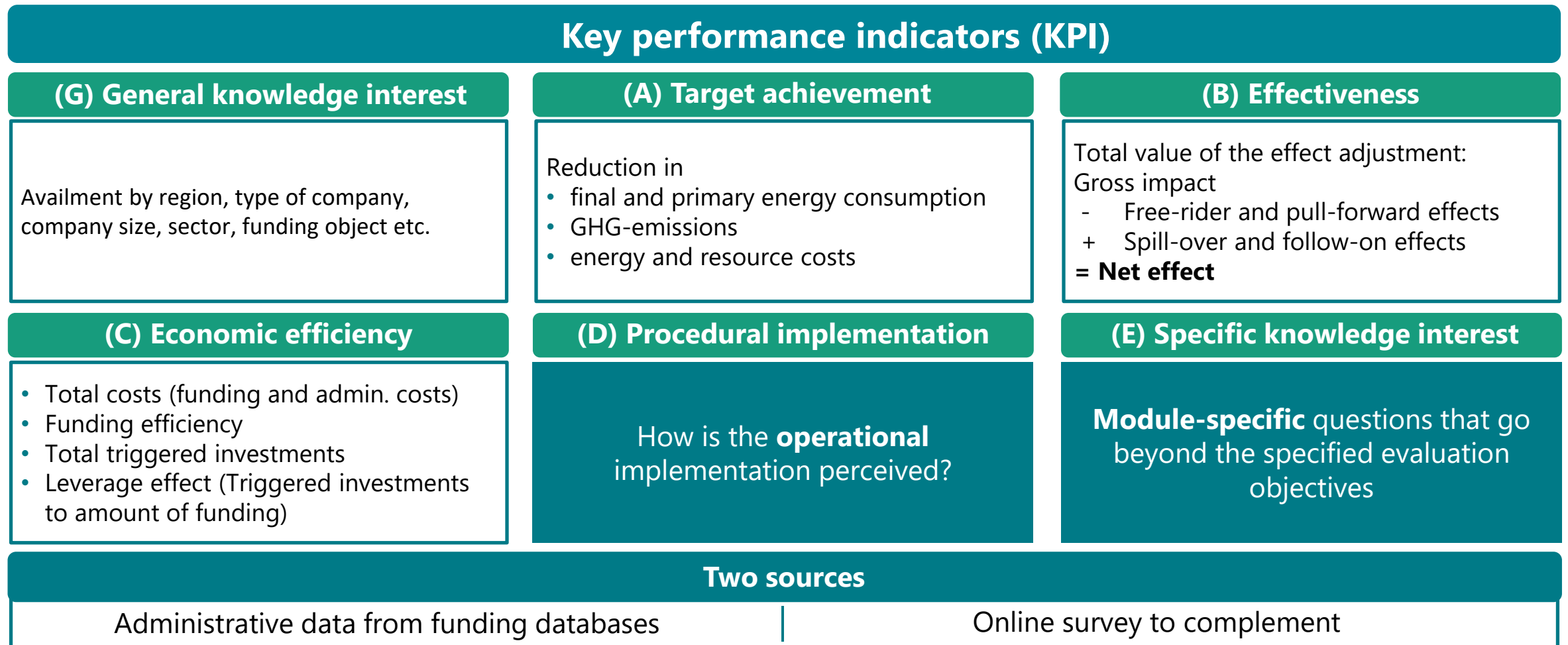
- Total costs (funding and admin. costs)
- Funding efficiency
- Total triggered investments
- Leverage effect (Triggered investments to amount of funding)

(D) Procedural implementation

How is the **operational** implementation perceived?

(E) Specific knowledge interest

The evaluation is based on six blocks of key performance indicators



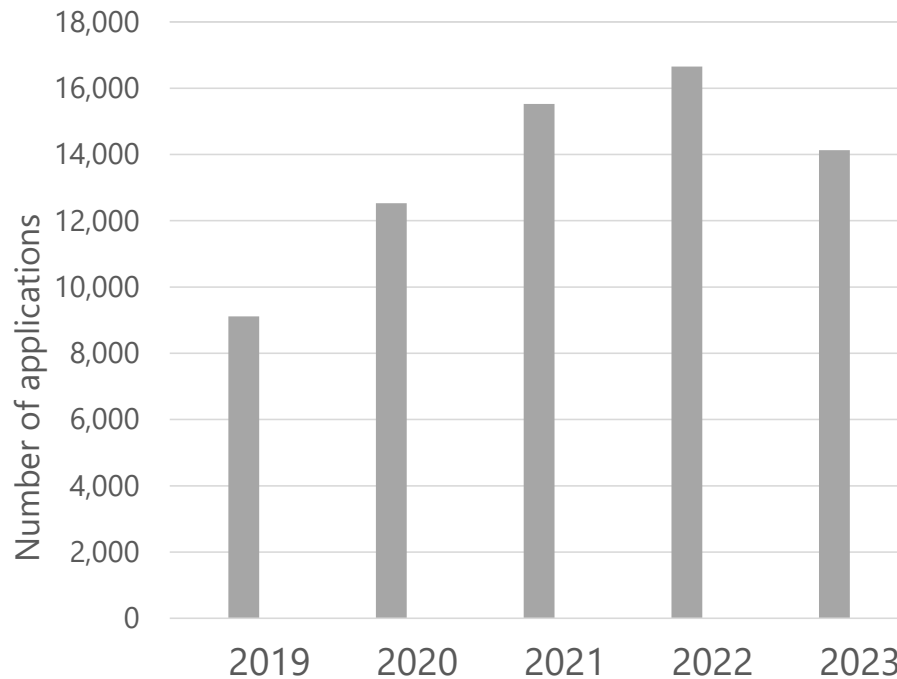
KPIs reflect successful launch and continued expansion of the EEE

Key performance indicators (KPI)

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Between 2019 and 2023:

- About 55,300 approvals
- of which 74% SMEs



➤ Over time, as in the case of Module 1, a market saturation occurs for certain technologies

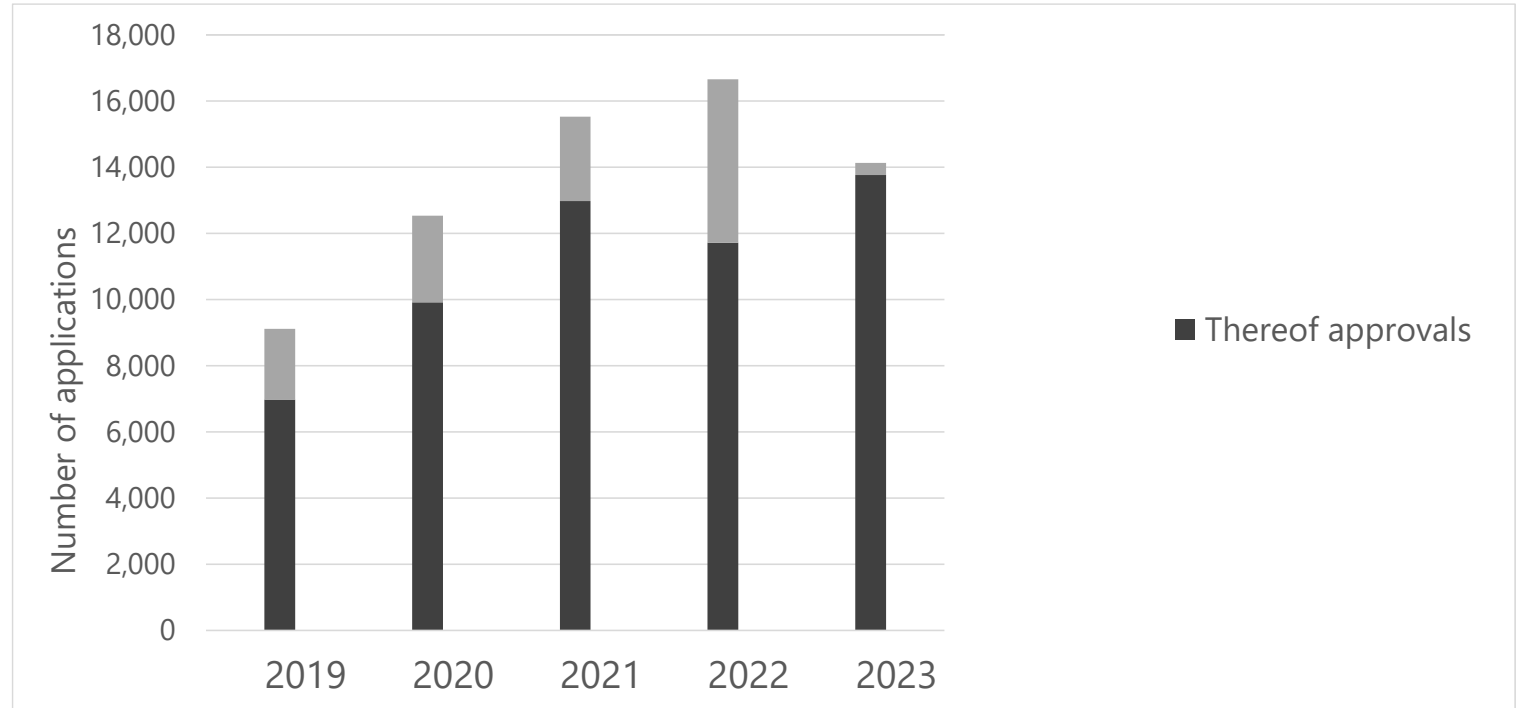
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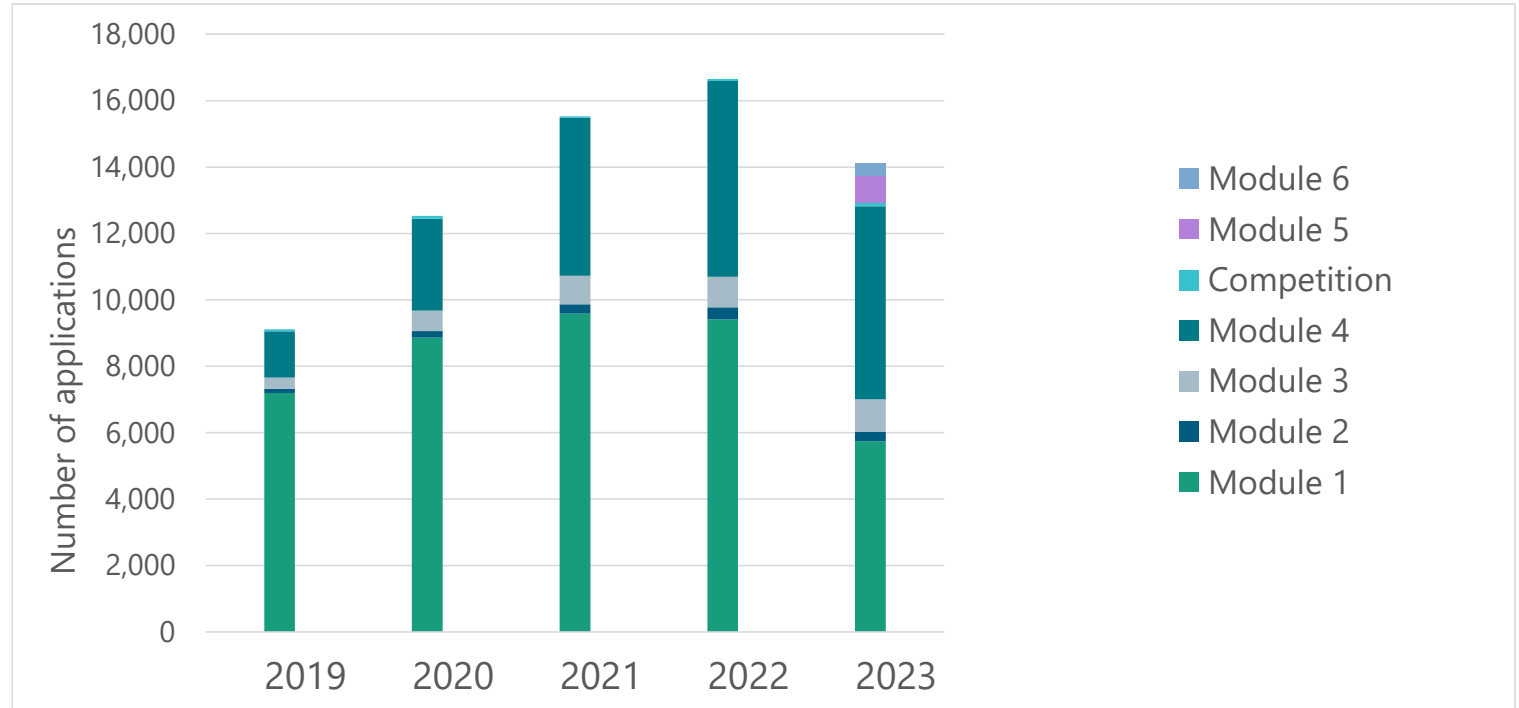
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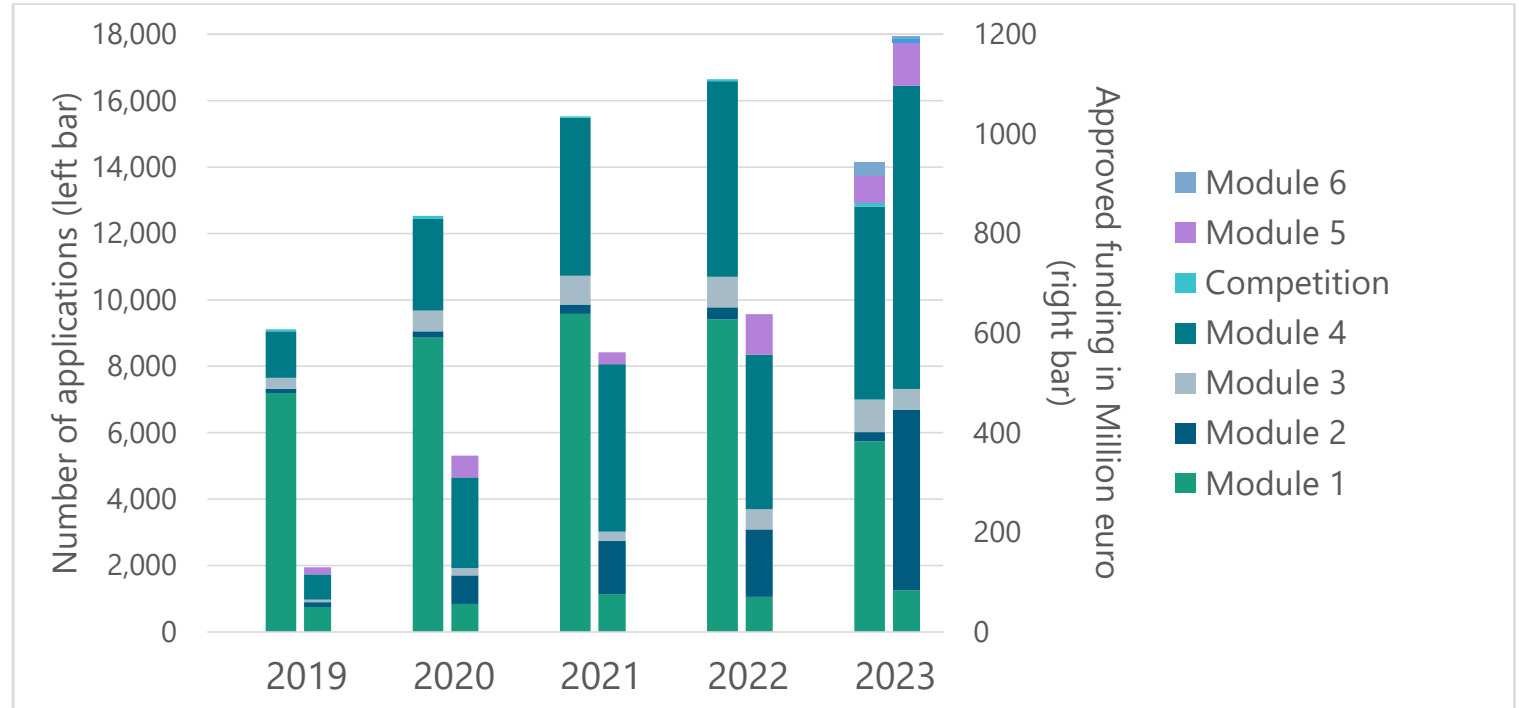
Between 2019 and 2023:

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- of which 74% SMEs

(C) Economic efficiency

Between 2019 and 2023:

- About 2.9 billion euro funding
- of which 51% SMEs



➤ Over time, as in the case of Module 1, a market saturation occurs for certain technologies

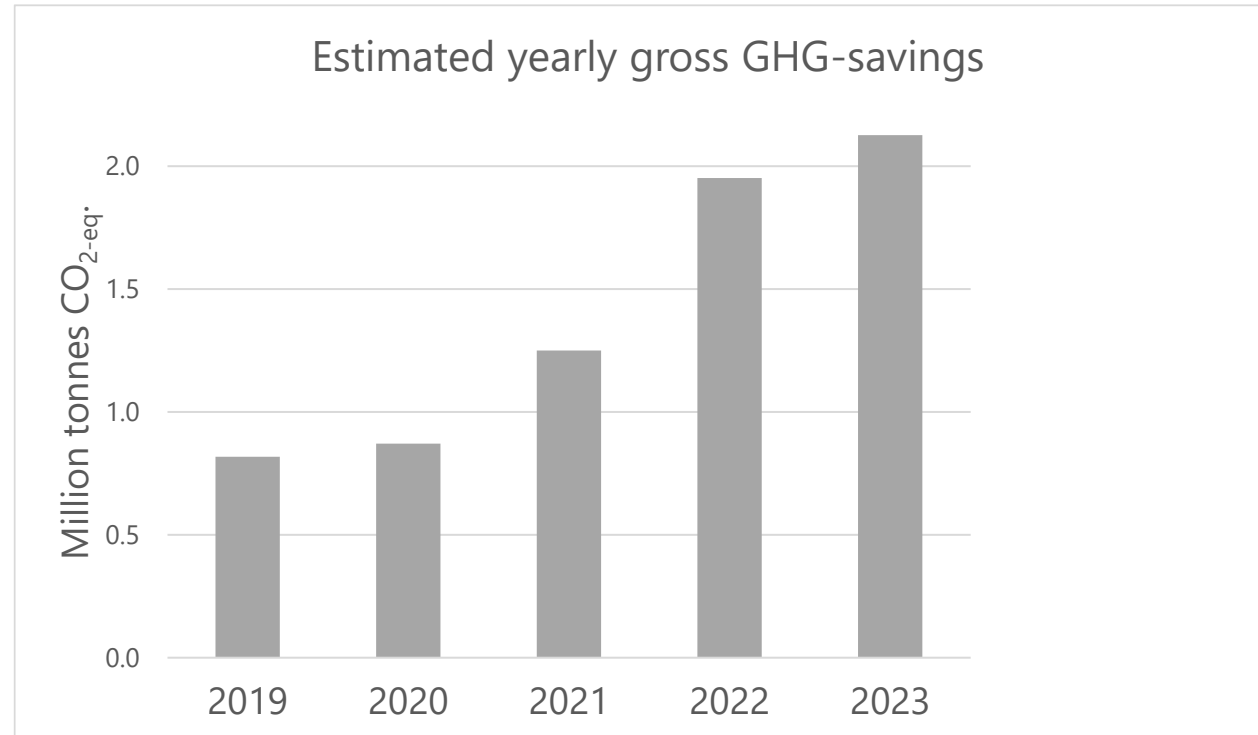
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Key performance indicators (KPI)

(A) Target achievement

Between 2019 and 2023:

- gross savings of over 7 million tonnes of CO₂-eq per year



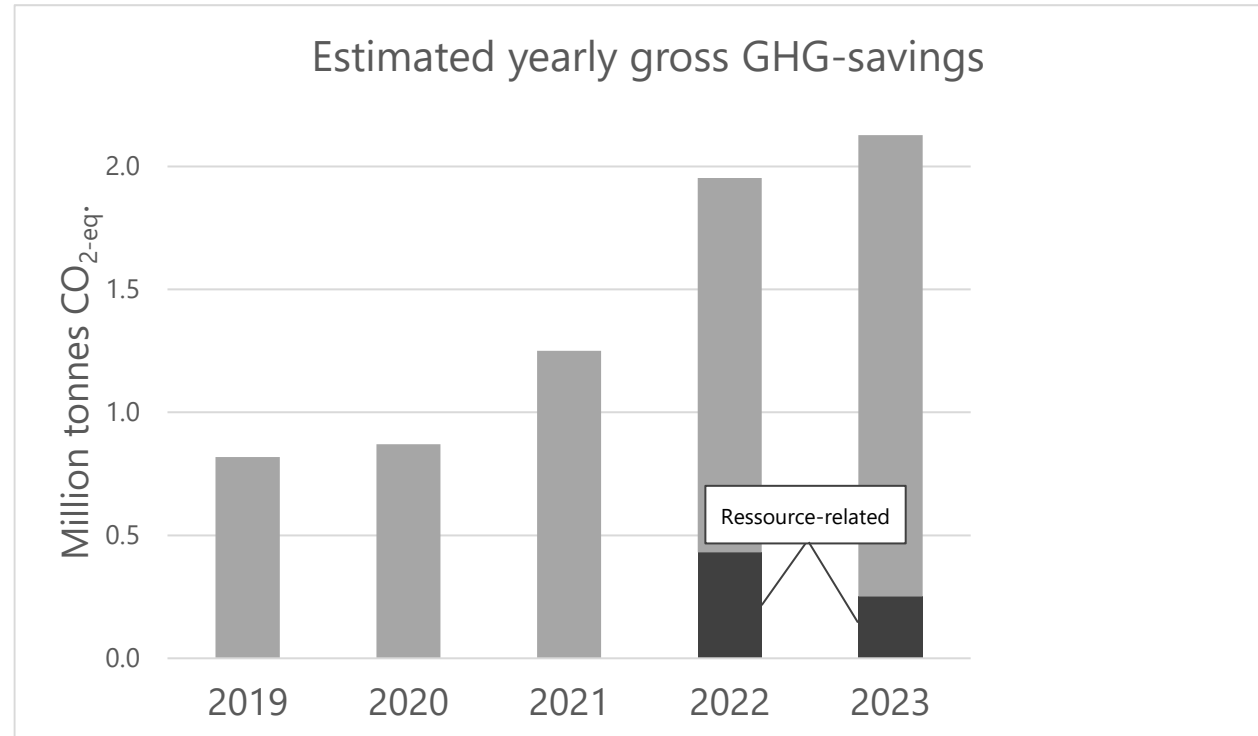
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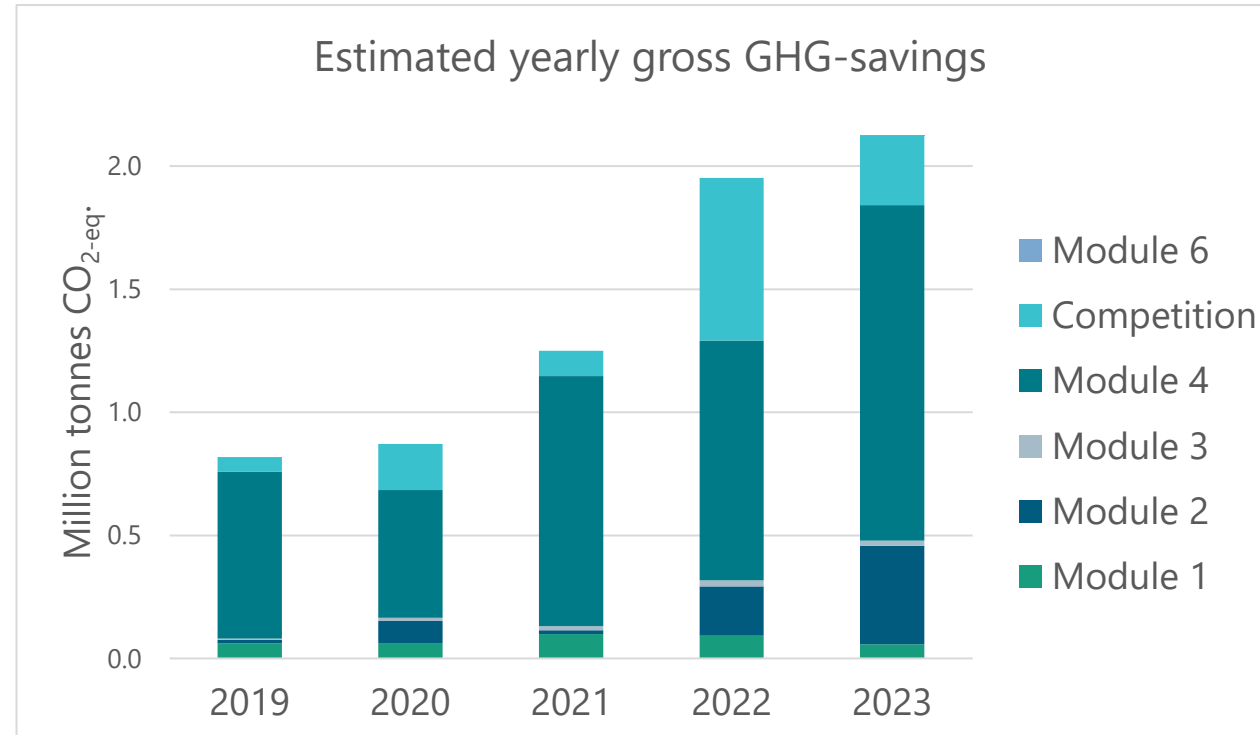
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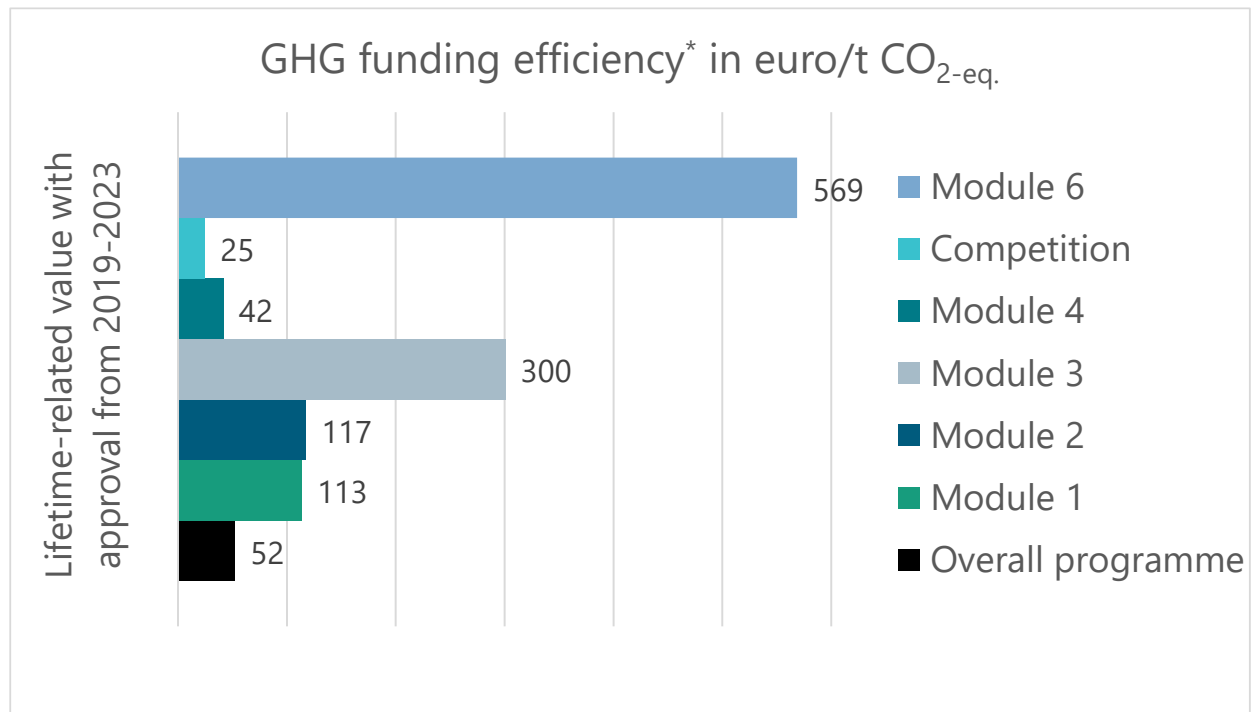
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* gross values

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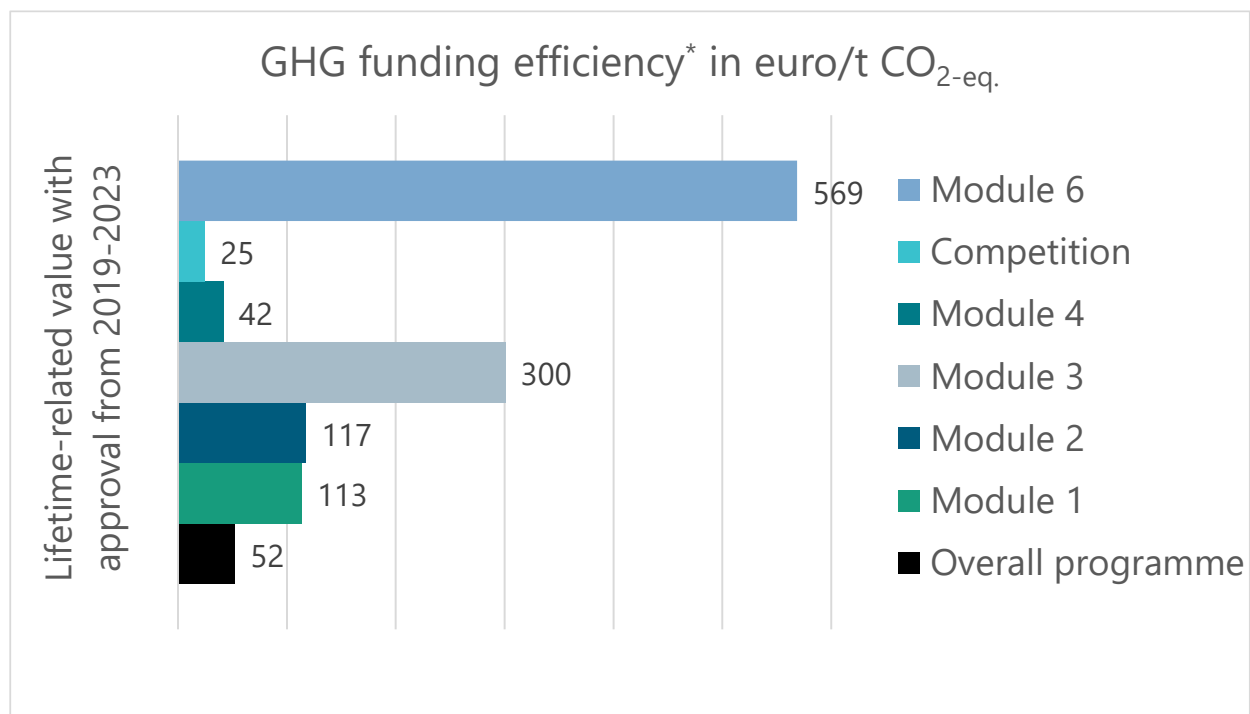
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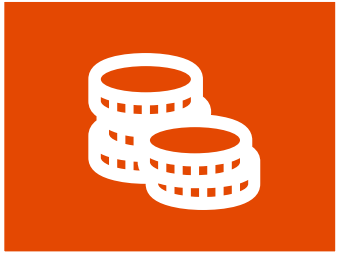


* gross values

- **Funding mix: Tech-open** approach drives large savings/ **Tech-specific** funding (esp. cross-cutting technologies) attracts volume & serves as entry point

Five groups of recommendations arise from the evaluation

1



Align goals and ambition level

- Lean and **focused target system** improves optimisation potential and increases control capability
- **Realistic targets:** after low hanging fruit usually come more complex/expensive projects

2



Stable funding environment, improved realisation and presentation

- Stable funding environment and **appropriate amendment deadlines**
- **Reduce the complexity** of guidelines and information sheets
- Attractive presentation and modern forms for **simplified access**
- Shorter **processing times:** Provision of sufficient capacity and experts for the review of funding applications

3



Thinking about evaluation

- **Evaluation-compliant** database structure
- Improvement of data quality through **plausibility checks** during input (e.g. units)
- **Closing data gaps** (e.g. for savings or technology categories)

4



Strengthening multipliers and spreading programmes more widely

- Use **project collectors** and repeat applicants as leverage for disseminating and tapping into **hard-to-reach groups** (e.g. SMEs)
- Increase utilisation in **underrepresented regions/industries**
- Exploration of **new channels** (social media) and utilization of advocates (e.g. chambers of commerce, energy agencies)

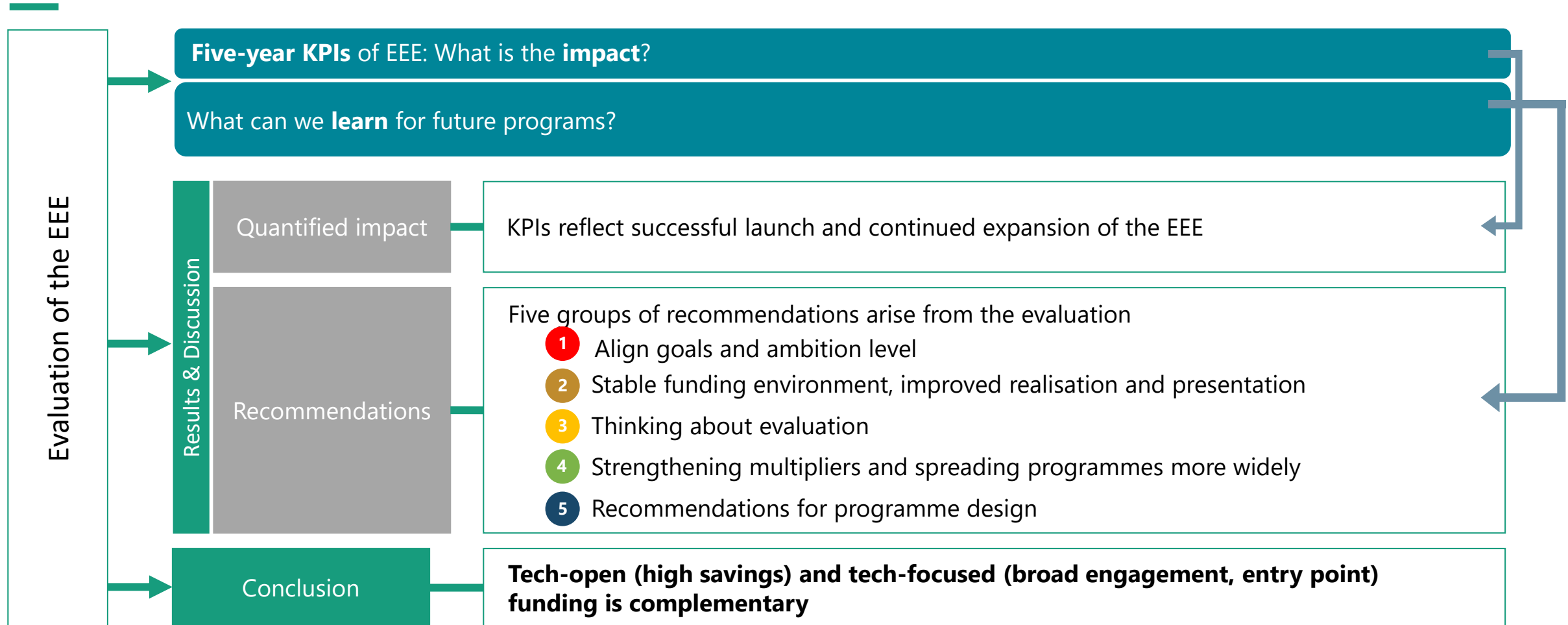
5



Recommendations for programme design

- **Technology-specific as well as technology-open** funding opportunities
- **Various funding models** depending on applicants' needs (grant, loan, competition)
- **Resource efficiency:** methodical handling of the GHG impact of imported resources

Conclusion



Contact

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This paper is based on results of a project¹ carried out for the German Federal Ministry for Economic Affairs and Climate Action (BMWK). We express our gratitude to the representatives from the Ministry and the implementing agencies for their support, our colleagues from Prognos, University of Stuttgart IER and Öko-Institut working on the study.

¹ Report (2023): https://www.bundeswirtschaftsministerium.de/Redaktion/DE/Evaluationen/Foerdermassnahmen/241217-evaluation-eew-jahresbericht-2023.pdf?__blob=publicationFile&v=6