
Accelerating energy efficiency activities in the manufacturing sector

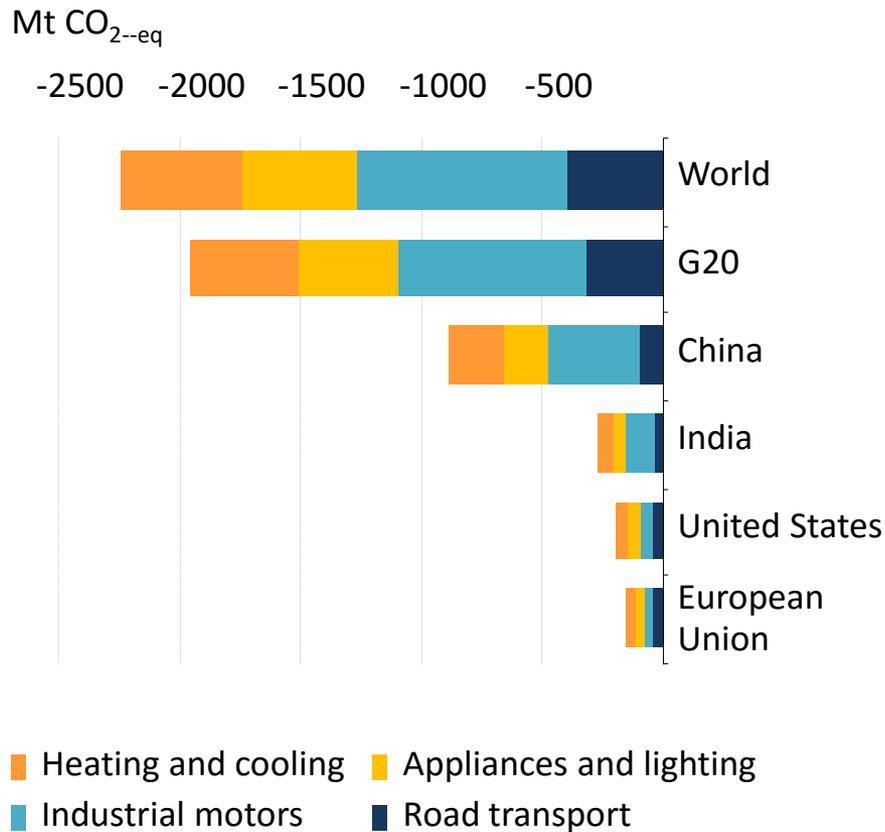
Panel 5: Business models and financing



Stefan M. Buettner

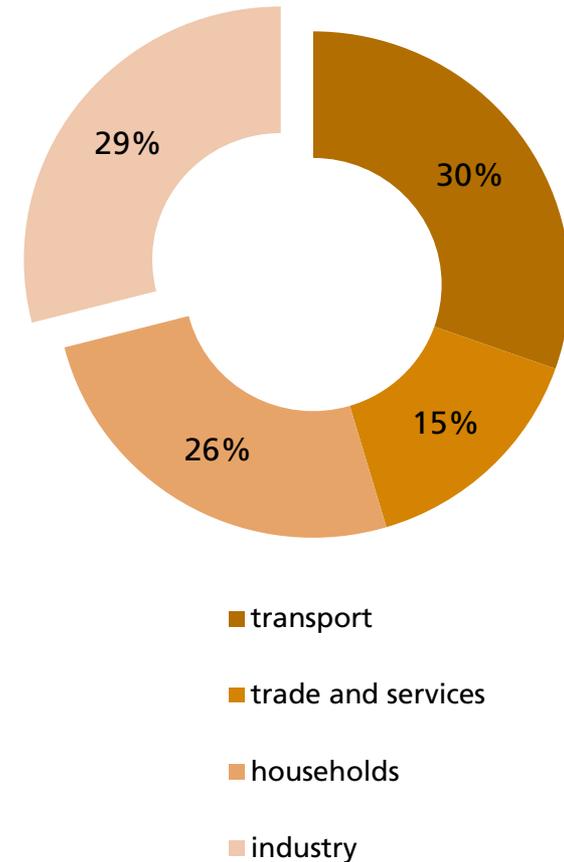
Institute for Energy Efficiency in Production
EEP, University of Stuttgart

GHG emission savings from energy efficiency for the "2°C-aim", 2030



OECD/IEA (2016) World Energy Outlook

Final energy consumption in Germany divided by sectors



AGEB (2014) pressedienst Nr. 01

Requirements

for energy efficiency investments in the industry sector

1. Motivation

+

2. ‚Capacities‘

+

3. Funding

=

Energy Efficiency Investment

1st

Motivation!

Try to establish a „Craving for Efficiency“.

Don't: Policies should not force companies to implement energy efficiency investments, but

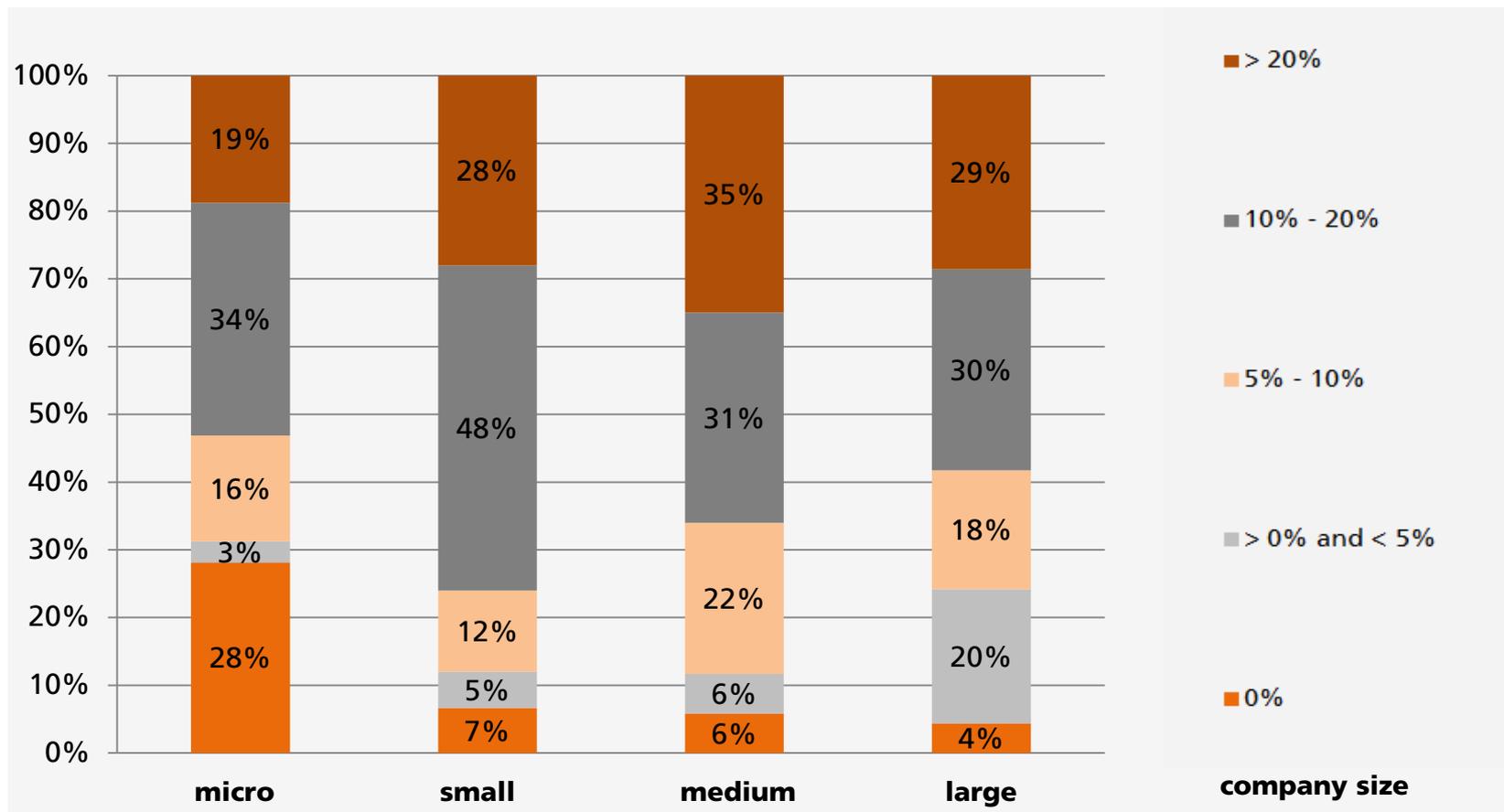
- **identify motivation & underlying company values**
- **identify barriers which reduce energy efficiency activity, like transaction costs, too long payback periods or policy barriers**

Do: Structurally integrate energy efficiency in the thinking of decision makers! Make successes visible.

- **Competitors will soon realize what additional profit and competitiveness they can achieve through energy efficiency**
- **This might kick-start a „viral“ upscaling of energy efficiency investments in the industry**

Example: 6th Energy Efficiency-Index of the German Industry

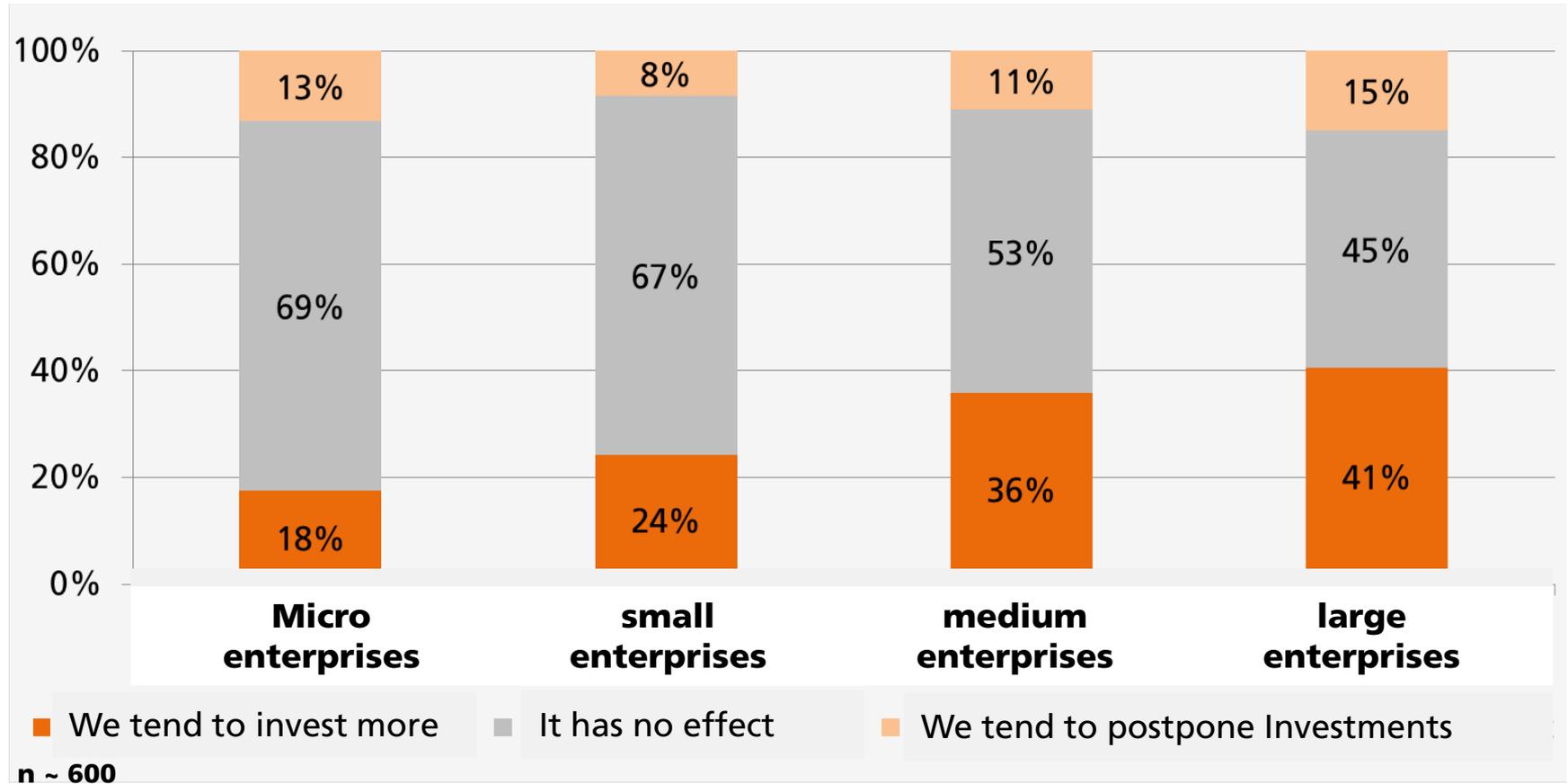
What share of the overall planned investments over the next twelve months will be allocated to energy efficiency measures?



n ~ 600

Example: 6th Energy Efficiency-Index of the German Industry

Which influence has a decrease of energy costs on planned energy efficiency investments?



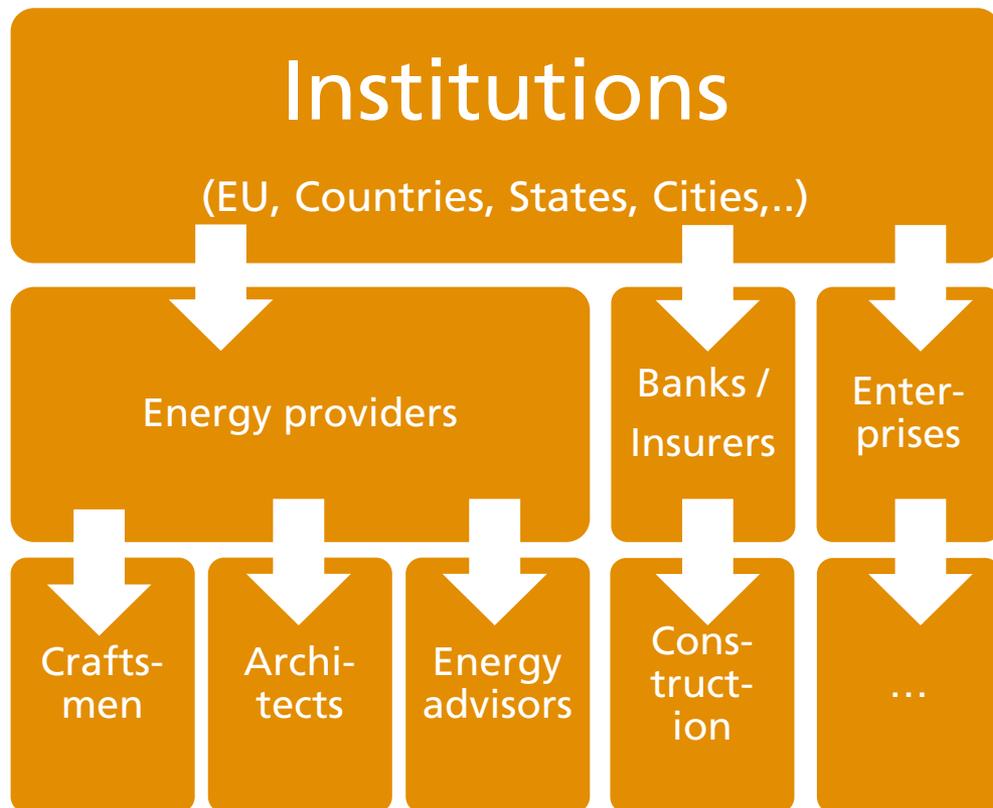
2nd Capacities

- **„Change through anticipative steering“ ...**
 - does not only need **consciousness and capability of the companies** themselves,
 - but also of **all other acteurs** who are involved in the energy efficiency investment process,
 - i.e. government departments, technology suppliers, energy providers, architects, craftsmen, constructeurs, energy advisors, banks and insurances.
- **„Capacity building“ is crucial for the „Energiewende“!**

Different stakeholders cater for different aspects:

Multiple 'Capacities of Energy Efficiency':

Different types of knowledge are needed in different dimensions



Strategic Level

Policies, Laws, Regulations, Frameworks

Service-/Advice (...) Level

Consciousness, Advise, ..

Operational Level

Implementation

Note: arrows underline that there are different levels, not a structural link between specific ones of them

3rd Funding

Policies and Support Programmes must not be general.

- they should focus on the needs and the value system of the companies.
- They should be tailored to serve a specific focus (e.g. tailored medicine vs. broadband antibiotics)

E.g. Small investments are not viable enough for banks, due to transaction costs

- Create a pool of similar energy efficiency investments to increase the scale of the investment and its profits.
- Companies can be clustered through already existing energy efficiency networks in Germany

More Details: *Boosting industrial energy efficiency investments through distributed internal fund in (b2b) Energy Efficiency Networks (EEN) – Panel 5, Tuesday 9am.*

Thank you for your attention.

Any Questions?

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