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# Unleashing efficiency potentials through understanding the demand side

UNECE Group of Experts on Energy Efficiency, 3<sup>rd</sup> Session

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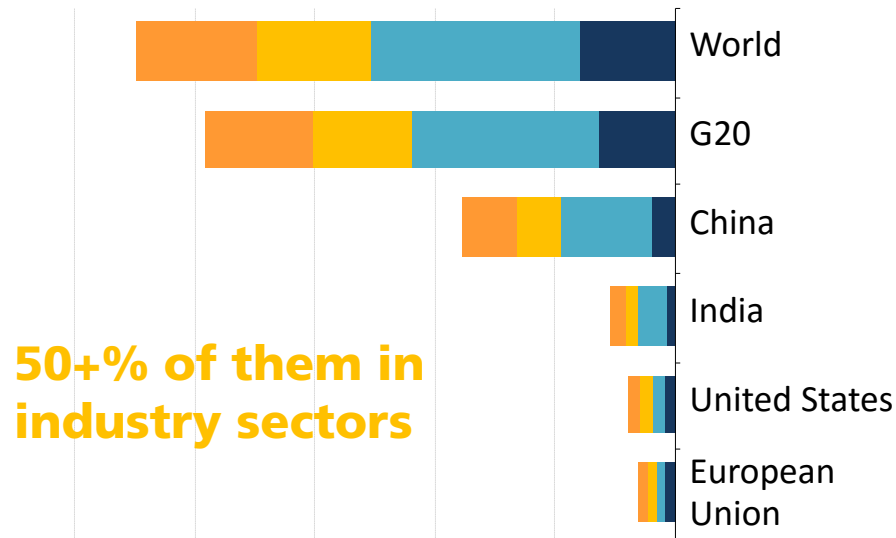


**University of Stuttgart**  
Institute for Energy Efficiency  
in Production EEP

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

Mt CO<sub>2</sub>-eq

-2500 -2000 -1500 -1000 -500



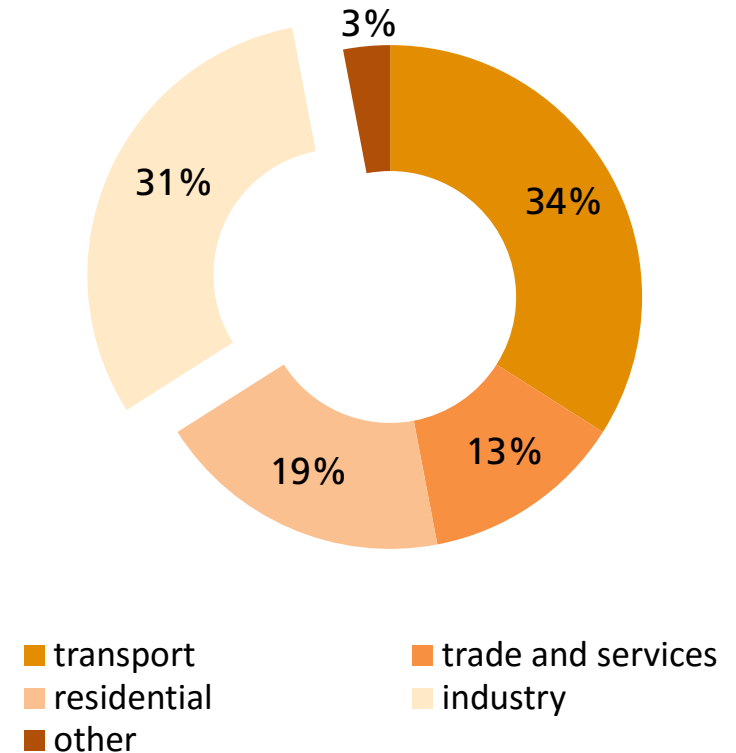
**50+% of them in industry sectors**

- Heating and cooling
- Appliances and lighting
- Industrial motors
- Road transport

OECD/IEA (2016) World Energy Outlook

## OECD Total final consumption by sector, 2014

**~ 1/3 of final energy consumption**



- transport
- residential
- other
- trade and services
- industry

IEA (2015) World Energy Trends



# Statements and Questions by Officials

During the IEA First Global Energy Efficiency Conference (and other events in 2016)

„What can we do as G20 on concrete deliverables?“

„We need data to increase transparency“

„Done a lot on supply side and energy system. Need to address demand side much more.“

„Industry is much more complicated“

„SMEs are hard to reach“

„What are the right framework conditions?“



# Statements and Questions by Officials

During the IEA First Global Energy Efficiency Conference (and other events in 2016)

→ Identify policy gaps and explore potentials

→ Gather meaningful data

→ How does the demand side make decisions, and how to increase the appetite for EE?

→ Find out on sectoral level

→ Get close

→ Info on barriers & accelerators



# The Energy Efficiency Barometer of Industry

## The Energy Efficiency Index of the German Industry

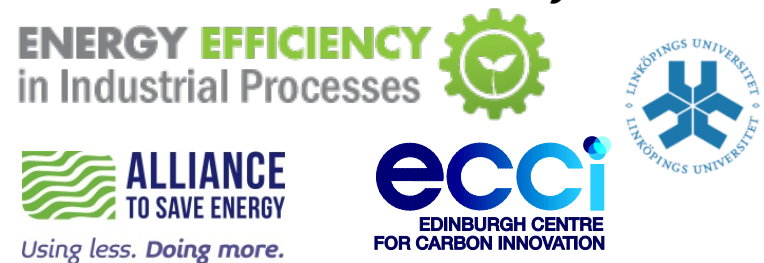
- Initiated by members of the Energy Efficiency Financial Institutions Group (EEFIG) of EU & UNEP FI
- Builds on systematic of the Energy Efficiency Index of the German Industry.
- Global demand-side focused economic indicator on EE across 27 sectors of the manufacturing industry.

### *Core Partners:*

#### *EE Index of the German Industry*



#### *EE Barometer of Industry (worldwide)*



# Economic Indicator - Capturing Opinions & Intentions of Companies – available ahead of official statistics

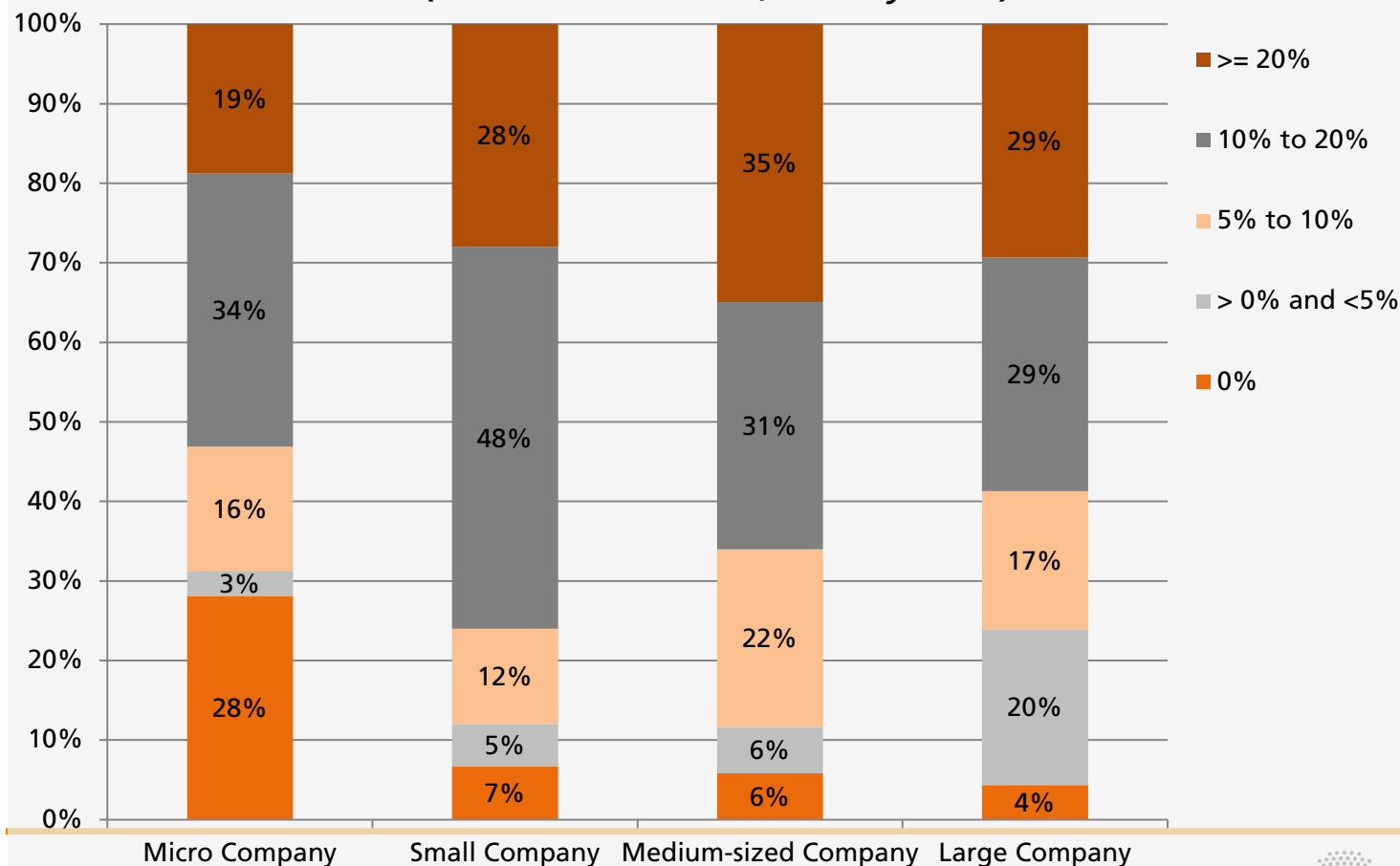
- help to unleash action towards increased EE in industry:
  - Inform **companies** where they stand and what they can do
  - Inform **legislators** whether instruments are effective and what type of instrument or framework may be required
  - Enable **financial institutions** to better assess risks & potentials and indicate which instruments have potential or are missing
  - Assesses the effectiveness/impact of **pilot- and development programs** and puts them in relation to control-groups

# Snippets from the 1st data collection 2016

## German Sample

## Planned Future Investments

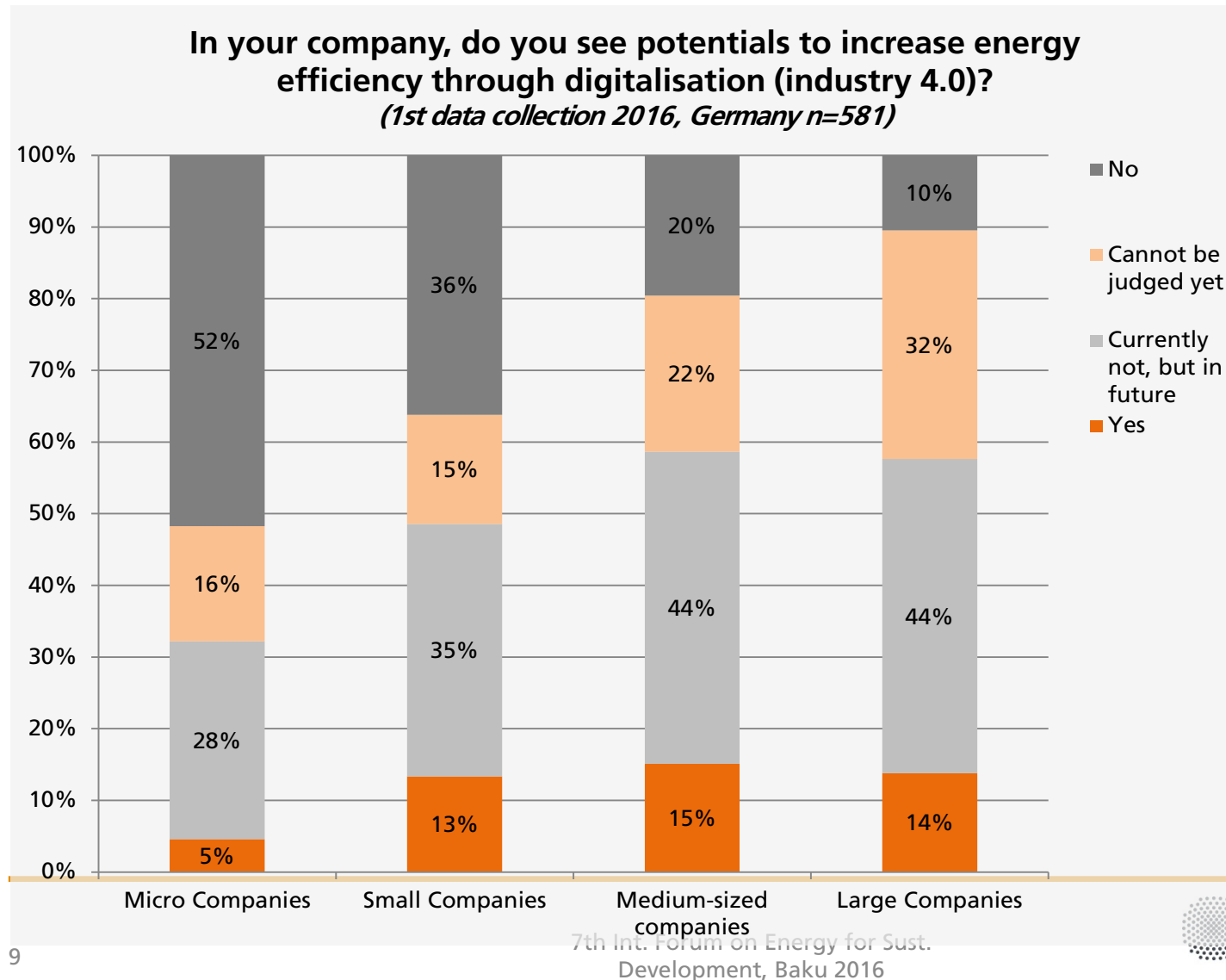
What share of the overall planned investments over the next twelve months will be allocated to energy efficiency measures?  
(1st data collection 2016, Germany n=334)



*More than ¾ of small companies invest at least 10% of investment budget into energy efficiency*

# Snippets from the 1st data collection 2016

## German Sample Digitalisation

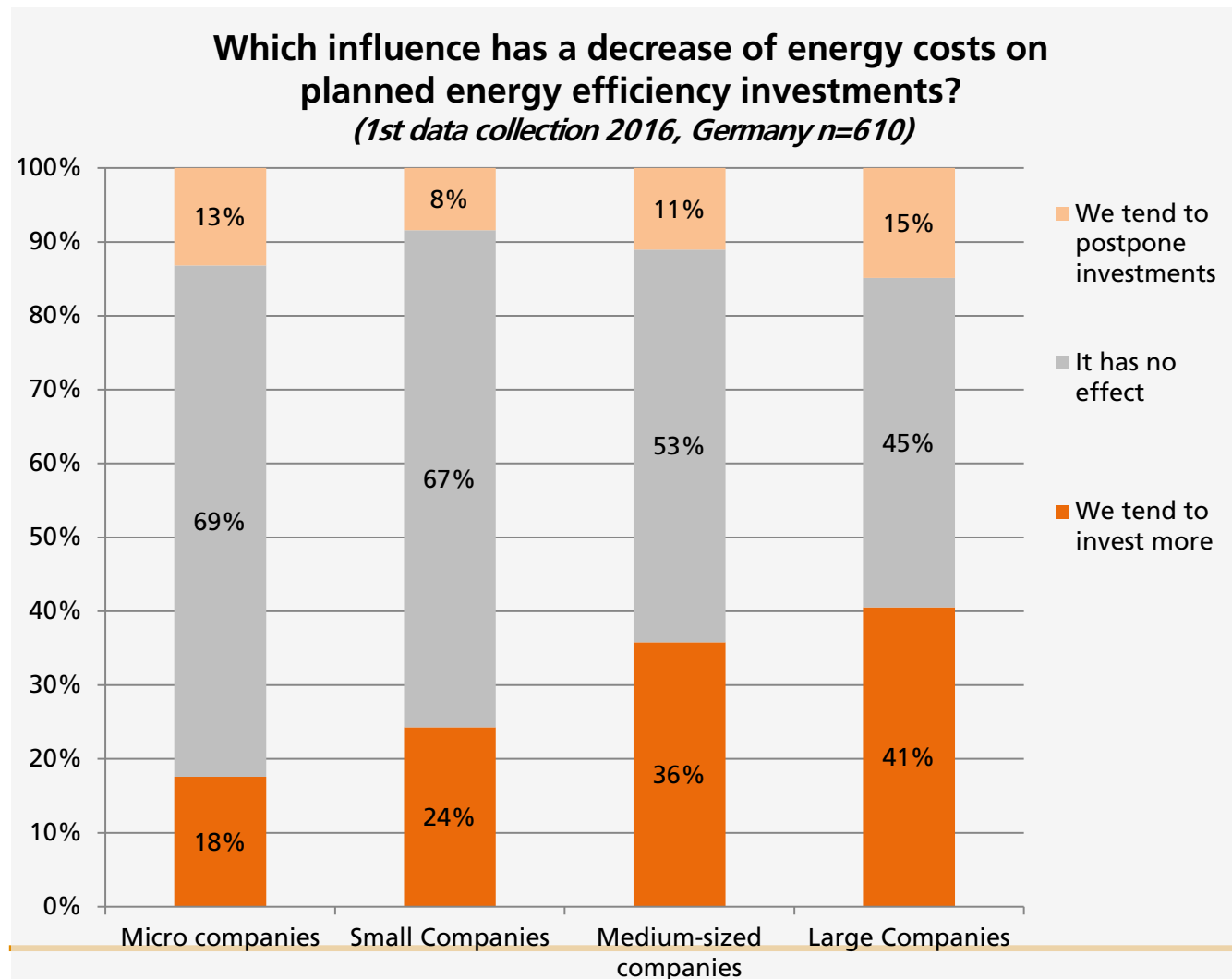


“Many, particularly larger companies, see potential in digitalisation, but we are still at the beginning. The majority of micro businesses doubt digitalisation will help them to become more energy efficient.”



# Snippets from the 1st data collection 2016

## German Sample Low energy prices



*“Despite the low price of energy and the resulting longer payback times, only few companies postpone energy efficiency projects. To the contrary, many even invest more, increasing by company size – possible using money that was saved due to lower prices.”*



# From ‚broadband antibiotics‘ to ‚tailored medicine‘

## Against Climate Change - for Energy Productivity

- **Bottom Line on Energy Efficiency Barometer:**
  - helps to reduce unknowns, risks and uncertainty in relation to energy efficiency interventions
  - enables sector-specific cross-country analyses.
  - It equips companies and legislators with insights on how and where to act,
  - makes financial institutions and service providers aware of feasible projects and required funding mechanisms and services.

# Understanding the demand side has begun

Data Collection started and spin-off work is under way


- The winter 2016 survey period has just started and runs until **31 December 2016**.
- International questionnaire and country versions for Germany and Sweden are online, UK and US in preparation.
- Adding **further country versions possible until 15/11**.
- Previous runs have informed a number of policy programmes and led to further work:



# The Energy Efficiency Barometer of Industry

## The Energy Efficiency Index of the German Industry



 **The Energy Efficiency Barometer of Industry**  
2nd Data Collection 2016

[Start Survey](#)

INTRODUCTORY MESSAGE

**Special Issue Questions**

Please note: Special Issue Questions are facultative. We appreciate if you took the time.

- Through whom did you learn about us?
- Did you participate in one of our previous data collections?  
 Yes  No

1. Would you consider switching your energy demand from fossil sources to electricity only?  
 Yes  No, due to processual reasons  
 No, due to securing the supply of energy  
 No, due to cost reasons  No, due to other reasons.
2. The performance of the most recent energy efficiency measure my company implemented is ...  
 ... better than envisaged  ... as calculated  
 ... worse than anticipated due to technical reasons  
 ... worse than anticipated due to use and handling  
 ... not known, as it was not assessed  
 We haven't implemented any measures.
3. Which entity in your company usually proposes energy efficiency measures?  
 Executive Management  Energy-/ Environment Manager  
 Chief Engineer / Production (Line) Manager  Other  
 Controlling  Employee/Staff Member
4. Which entity within your company decides upon the

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### The Energy Efficiency Barometer of the Industry

#### Welcome to the Energy Efficiency Barometer of Industry!

We very much welcome that you would like to participate in our questionnaire!

The current data collection will run from 7 October until 31 December 2016. The timeframe includes country specific versions.

[CLICK HERE FOR THE QUESTIONNAIRE](#)

We are developing, together with our partners, country/language versions of the Energy Efficiency Barometer

[DEUTSCHLAND / GERMANY](#)

Alternatively, you can participate in the questionnaire by filling-in the Energy Efficiency Barometer Leaflet, that you can download [here](#) and send to [our institute](#).

More detailed information on our Energy Efficiency Barometer, as well as results of the current and previous

<http://www.eep.uni-stuttgart.de/eeei/>



**University of Stuttgart**  
Institute for Energy Efficiency  
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# Thank you for your attention.

## Any Questions?

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