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# Funding measured energy savings: first findings on performance-based "Energy Savings Meter" funding scheme

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# Looking for a new kind of funding programme



## Significant energy savings needed to attain Germany's energy and climate targets

- True outcomes of the efficiency schemes which have been funded?  
→ Actual savings below savings estimated in basic calculations?

**reliable energy savings needed**

- Energy service companies still to reach their full potential, especially with fragmented market areas.

**digitisation could bring leverage: offers new opportunities to deliver energy services at low costs, better customer-approach**

➡ Idea of performance-based funding linked to a digital energy service

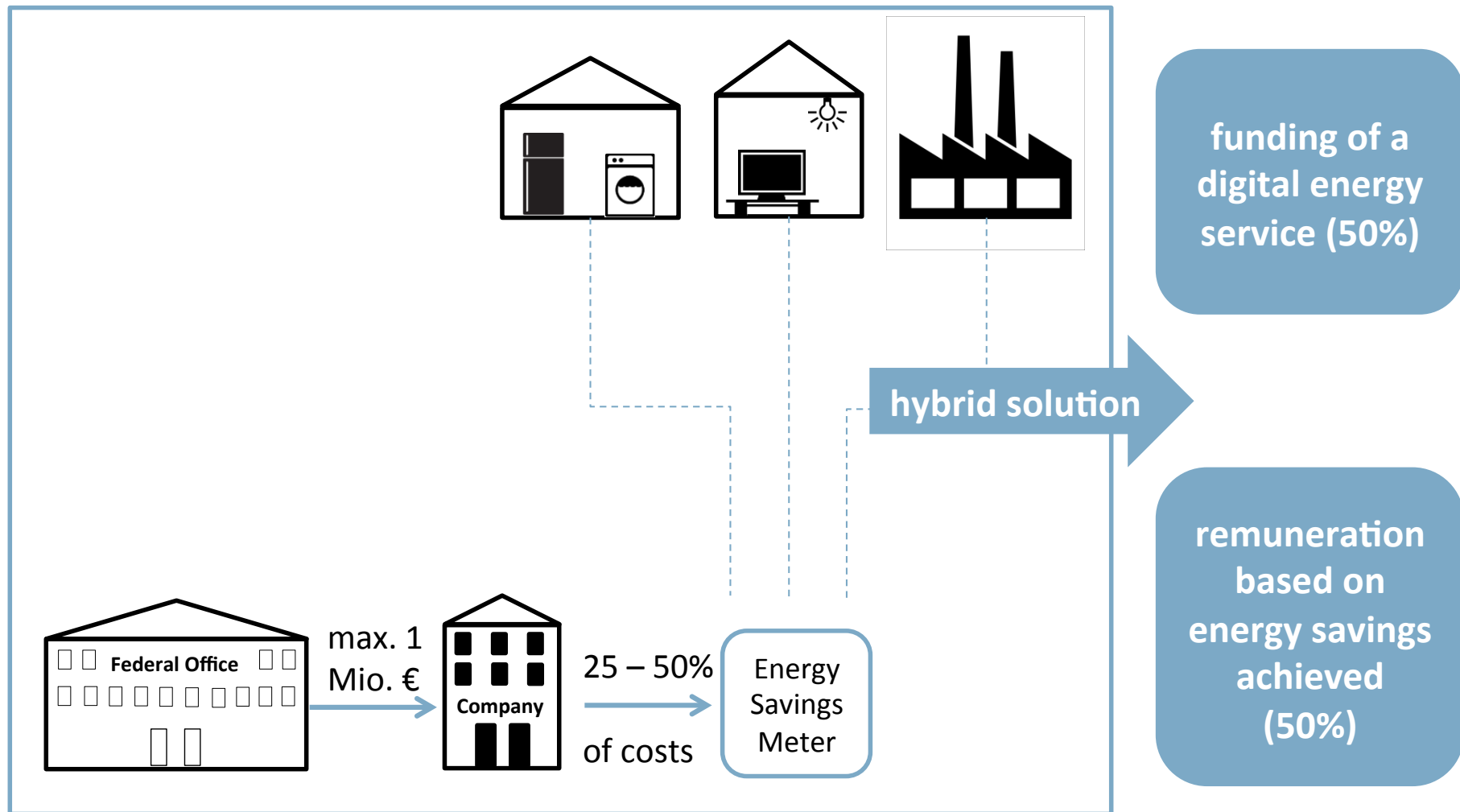
# The "Energy Savings Meter": characteristics of the pilot funding programme

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- Eligible companies propose energy services that generate energy savings for their clients
- Funding based on costs for development of an innovative digitised energy service
- 50 % of the funding amount based on actual energy savings achieved
  - electricity saved: 28 cts/kWh for residential customers, 15cts/kWh for other customers
  - heat, gas, cold energy: 5 cts/kWh
  - Increase of remuneration due to additional options smart meter gateway, load-management ready, open source (2 cts/kWh each)

# Funding scheme "Energy Savings Meter"



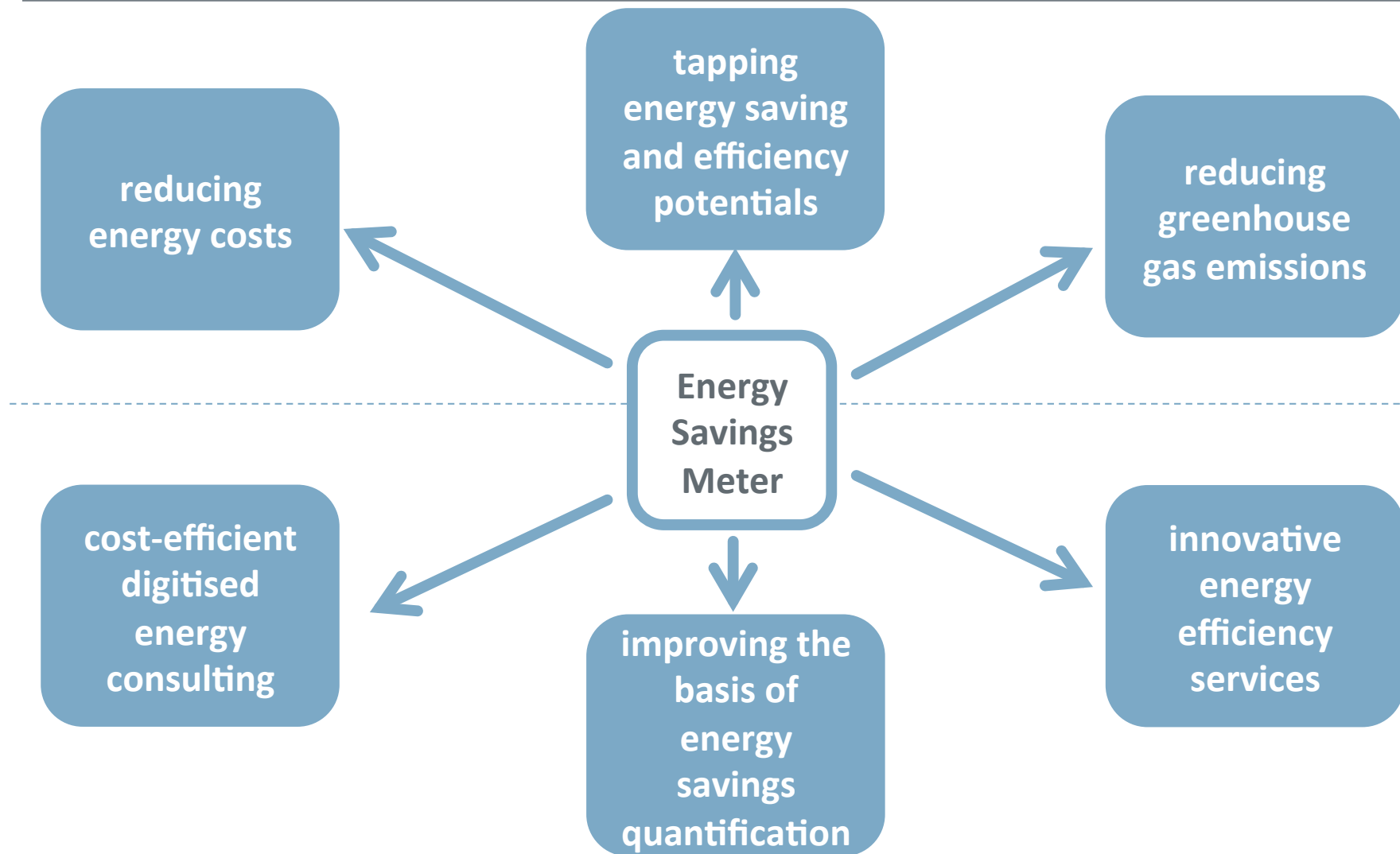
# What is an "Energy Savings Meter"?

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An energy service that comprises hardware and software for

- Continuous measurement of energy consumption
- Determination of energy savings based on a before and after measurement
- Visualisation of the data
- Identifying the energy consumption on a device level, where possible (e.g. via disaggregation)
- Providing individualised information on energy savings potentials and additional services.

# Funding scheme "Energy Savings Meter": objectives



# Funding scheme "Energy Savings Meter": first findings

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24 applications submitted since the programme's start in May 2016,  
thereof 8 applications granted until now

General tendencies derived from these applications:

- most projects target electricity or gas/heat savings
- focus mostly new clients that have hitherto been rarely addressed by energy services (SME, residential, also small entities with central management)
- target sectors fairly well balanced between residential and non-residential sector, industrial sector underrepresented
- most projects tend to deliver system information rather than actively controlling systems
- projects tend to be relatively large (900.000 €)
- intended energy savings mostly between 10 and 30%, in some cases up to 70-80%

# Funding scheme "Energy Savings Meter": Intended projects



## Fields of activity e.g.

- Enhance performance of heating installations by uncovering bad operation
- „Smart sufficiency“: enable users to adapt heating, air conditioning and ventilation as well as usage of electrical appliances to their needs
- Enhanced information about power usage through disaggregation

**tackle savings linked to real operation and / or behaviour**

## Motivation to act through e.g.

- alleviating split incentives, e.g. performance-based incentive paid to landlord in a landlord-tenant-situation
- benchmarks for business sectors via collected data
- gamification for residential customers

**a variety of motivational tools**



# Funding scheme "Energy Savings Meter": Preliminary conclusions

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- Great interest from market actors, but
  - complex programme
  - measurement requirements and baseline conception are a challenge for applicants
  - first measured data expected for the end of 2017
- Addressed energy savings go beyond installation of new technology
  - embrace behavioural changes and adaption to needs
  - optimise real performance and encompass bad operation
- Addressed end users comprehend fragmented fields like residential and small businesses that have been difficult to attain up to today
- Many projects intend to share anonymised collected data
  - will improve understanding of energy consumption patterns

# Open questions

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- Final outcomes of the projects?
  - Savings achieved?
  - Leverage effect for other funding schemes? Or for other financing options?
  - Novel consortia of market actors?
  - Market penetration and possibility of scale-ups of projects?
  - Reduction of rebound effects?
- Implementation of in-depth measures? Cherry picking vs. sparking search function of the market?
- Will the measured savings approach be transferred to other programmes in the future?



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# Thank you for listening

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