

STEP up! The Competitive Efficiency Tender in Germany – Step by Step towards an effective new instrument for energy efficiency

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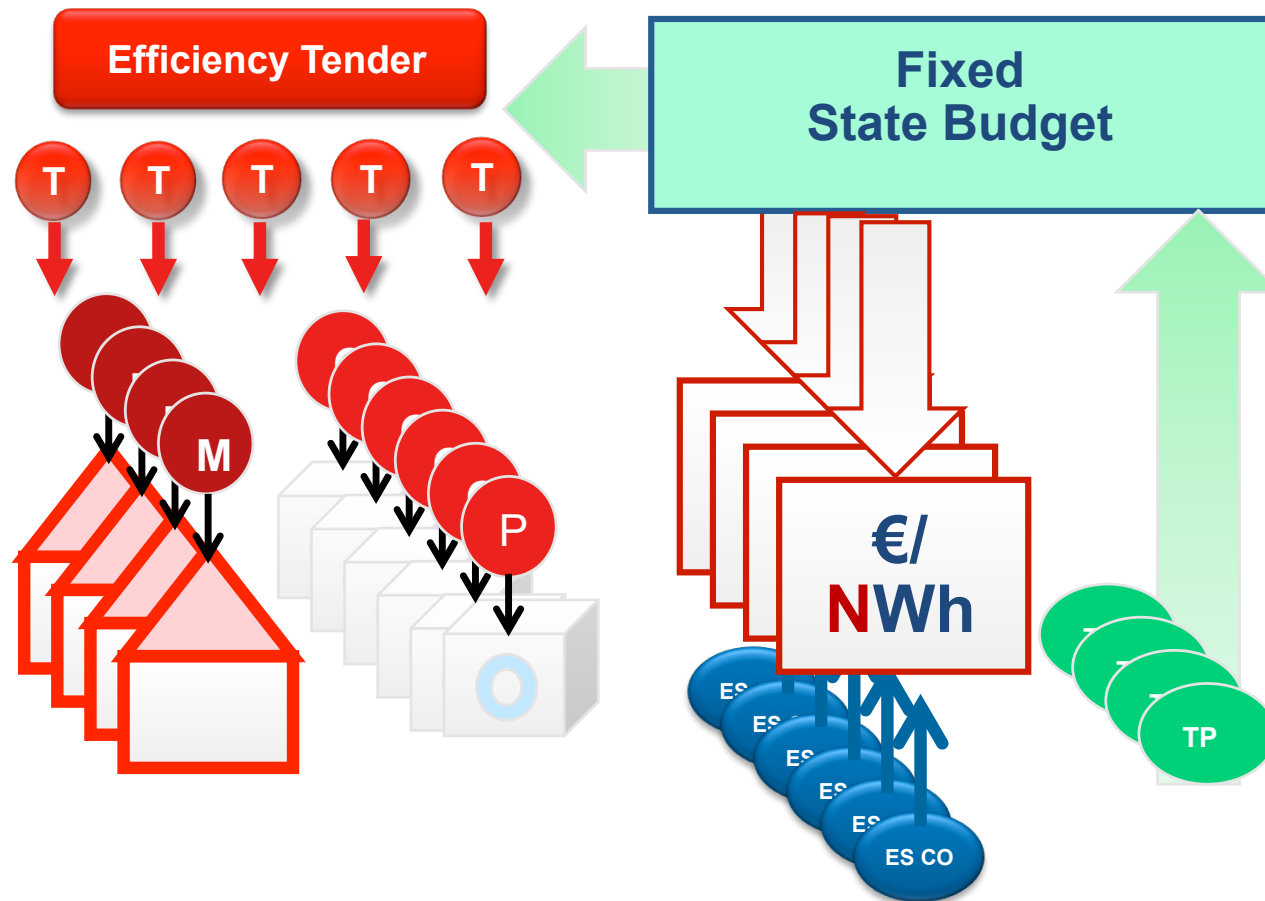
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- 01 Start of STEP up! as Competitive Efficiency Tender
- 02 First tendering rounds & Stakeholder survey
- 03 Results of the evaluation
- 04 Lessons learnt & Outlook

- Due to the long tradition of Energy Efficiency Policy there were some concerns about an EEO in Germany
 - **STEP up! started in June 2016 as a CET for electrical energy efficiency measures**
 - It is an alternative measure to implement Art. 7 of the EED
 - The program was **inspired by the Swiss CET program ProKilowatt** which started in 2010
 - STEP up! was set up as a pilot program for three years
 - According to NAPE 26 to 52 PJ primary energy savings and 1,5 to 3,1 million t CO₂eq reduction of GHG emissions were expected by STEP up! until 2020
- Prognos and ifeu were commissioned with the **accompany and evaluation of the three years pilot phase**



- thumbs up icon competition of ideas.
- thumbs up icon competition of costs.
- thumbs up icon the right market actors.

- thumbs down icon complex administration
- thumbs down icon risk of energy savings (no obligation, but voluntary participation)

T: Tender
M: Measure / single projects
P: (energy efficient)
Products / collection projects
TP: tax payer

150 Mio €

closed tender

for special classes of projects, e.g:

- Modernisation of elevator systems
- Contracting
- Heat & power savings

open tender

for all cases of electricity savings

single projects // **collection projects**

**Funding decision: minimal
funding per unit saved energy
[ct/kWh]**

€/NWh

additional criteria:

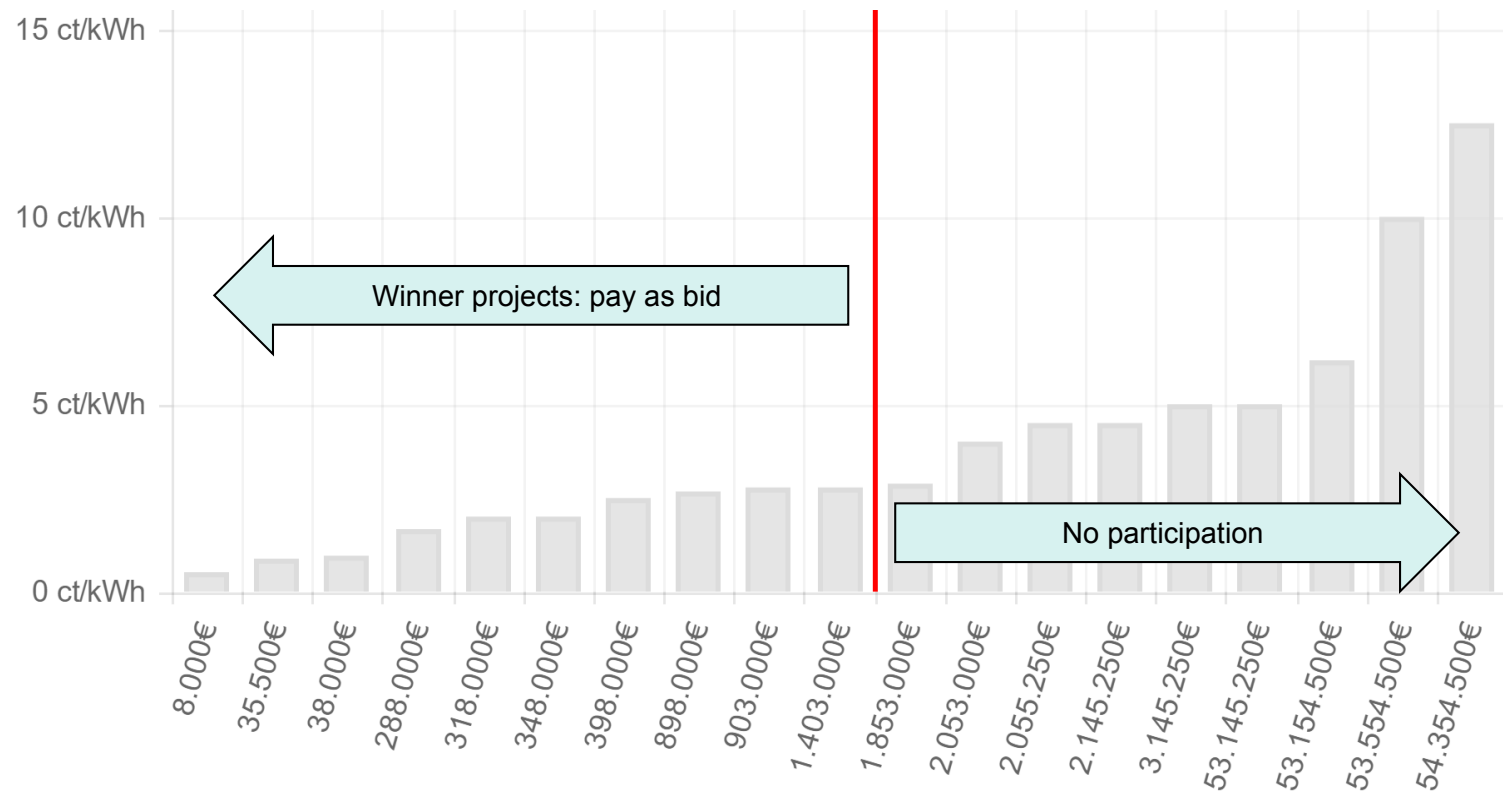
- max 10 ct/kWh
- max funding at 30% of invest & management
- minimum payback at 3 years
- 2 calls per year.

eligible for participation:

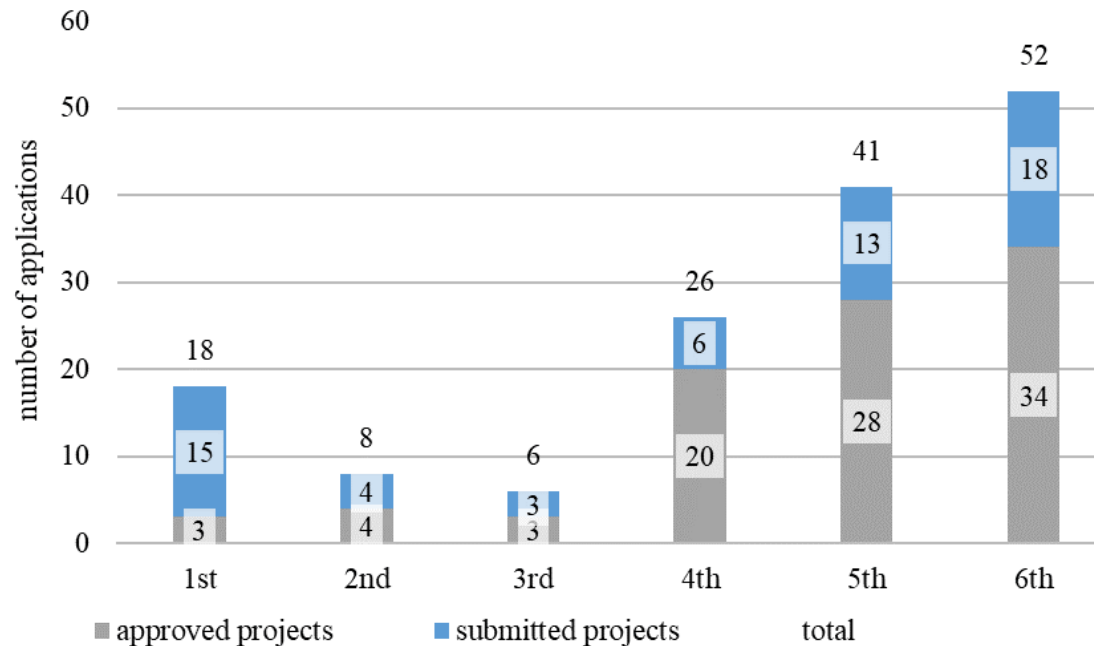
all companies, private & public institutions, energy service companies etc.
No municipalities

Example with a fixed budget at 1,5 mn €

Every call is tendered with a fixed budget.



Number of applications over the six tendering rounds (2016 to 2018)



- STEP up! was awaited with great interest by stakeholders
- Only few applications in the first three rounds
- From round 4 on the applicants and funding increased significantly

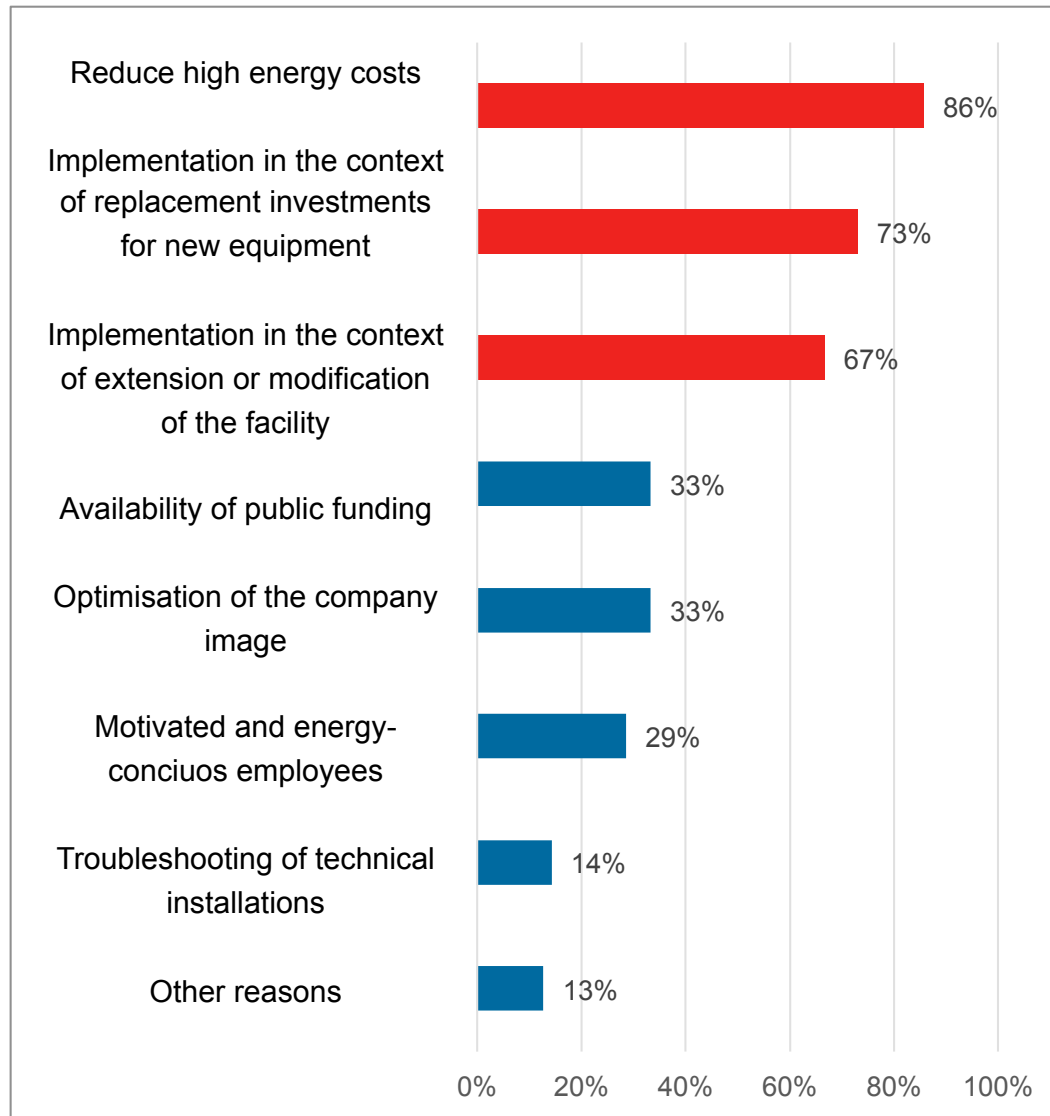
The first results remained far behind the expectations, therefore...

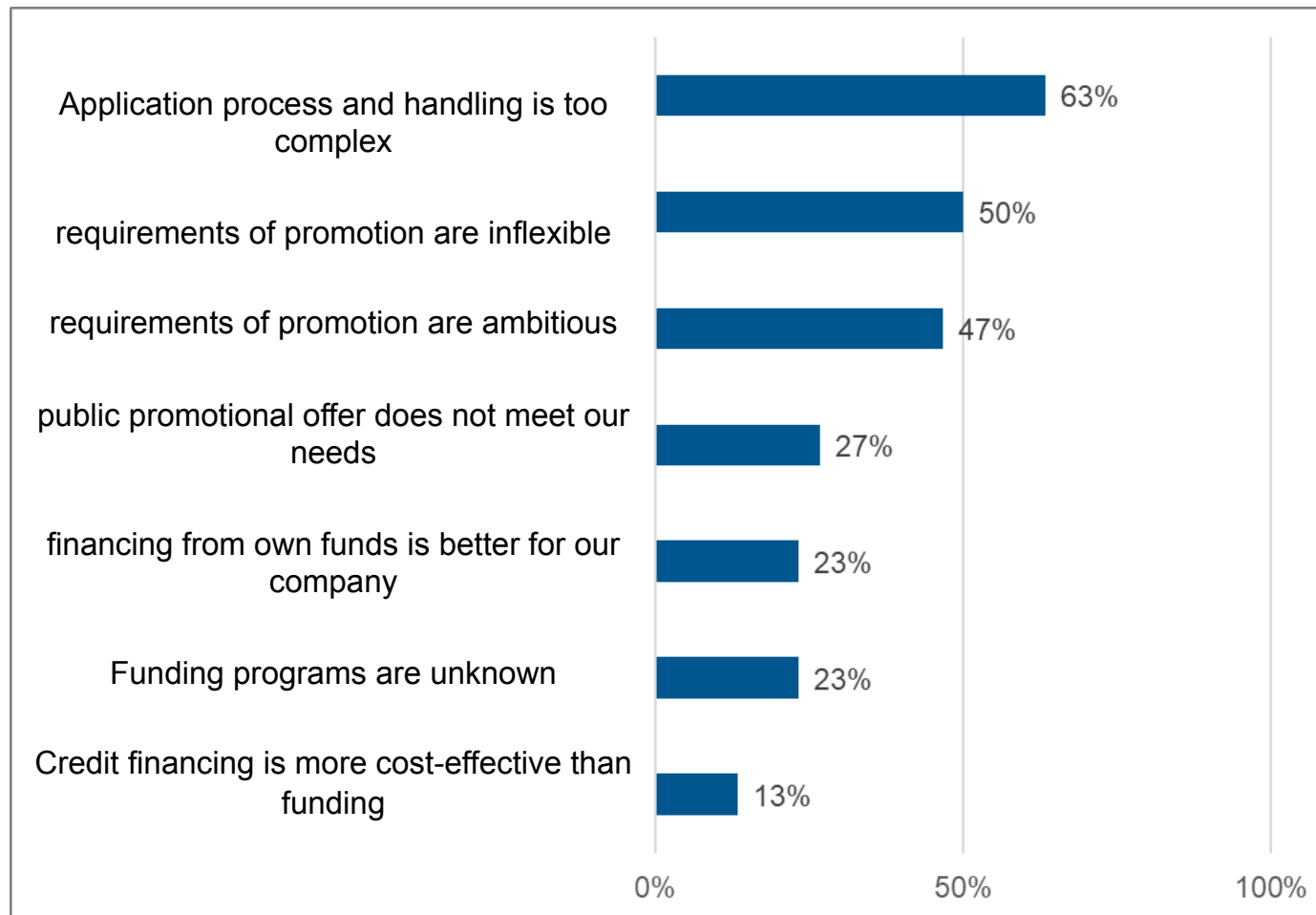
→ **Online survey** of potential candidates were realized

→ **Consultation of the stakeholders** were conducted such as:

- Program owners
- Program administrators
- Energy (efficiency) associations
- Multipliers (energy consultants, energy efficiency agencies)

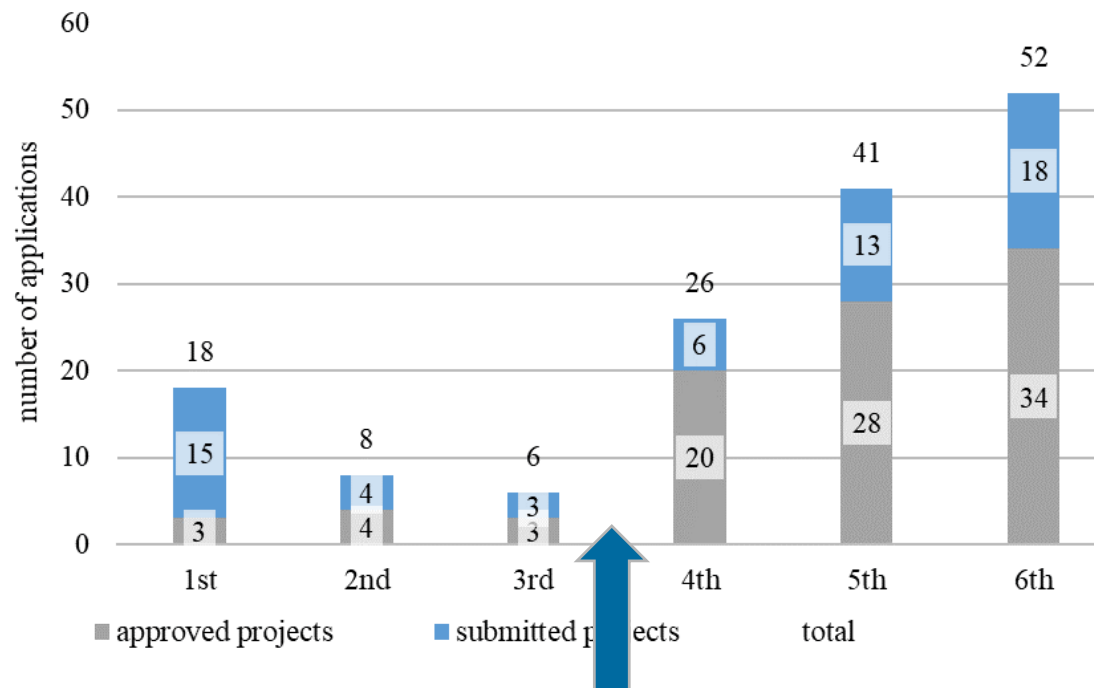
Reasons for the implementation of energy efficiency measures





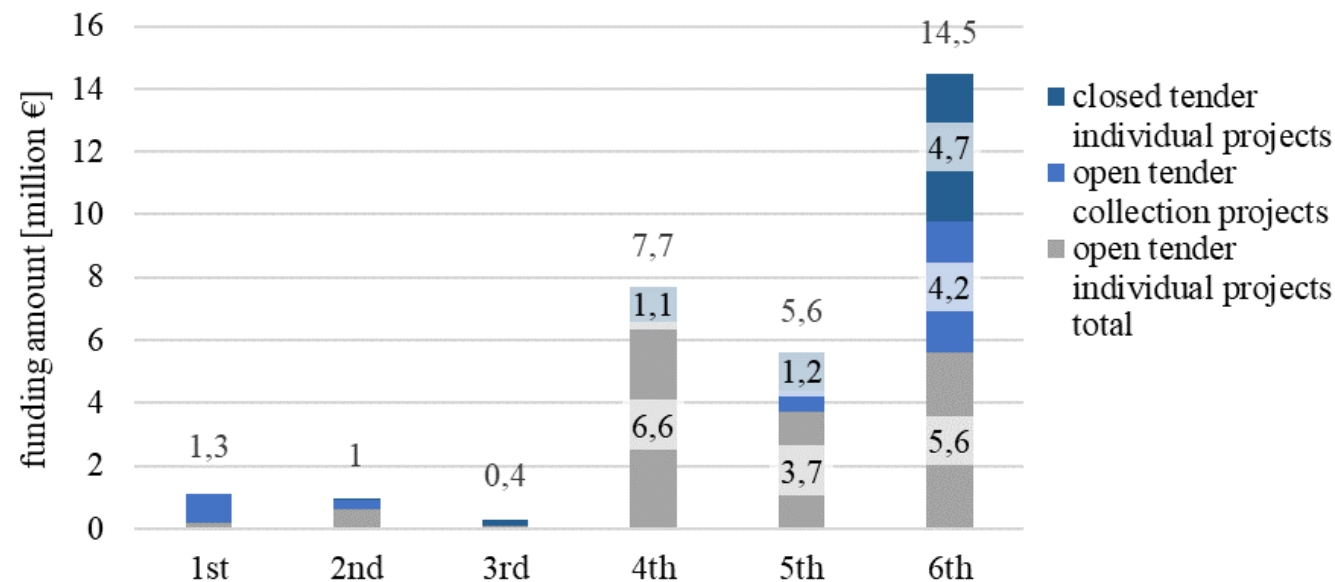
Pros +	Cons -
Good awareness among relevant stakeholders	Limitation to electricity efficiency measures
Openness for all measures, technologies and all actors	Application procedure is quite complex and requires habituation
testing and realization of innovative energy efficiency solutions, also systematic solutions	Risk to fail due to the competitive approach
development of energy efficiency markets and business models	Higher risk and effort than for classic efficiency funding programs but no higher funding rate
	Collection projects not attractive enough for project administrators (30% funding rate of the overhead costs)
	Hard to reach companies which are not familiar with energy efficiency (funding)

Number of applications over the six tendering rounds (2016 to 2018)

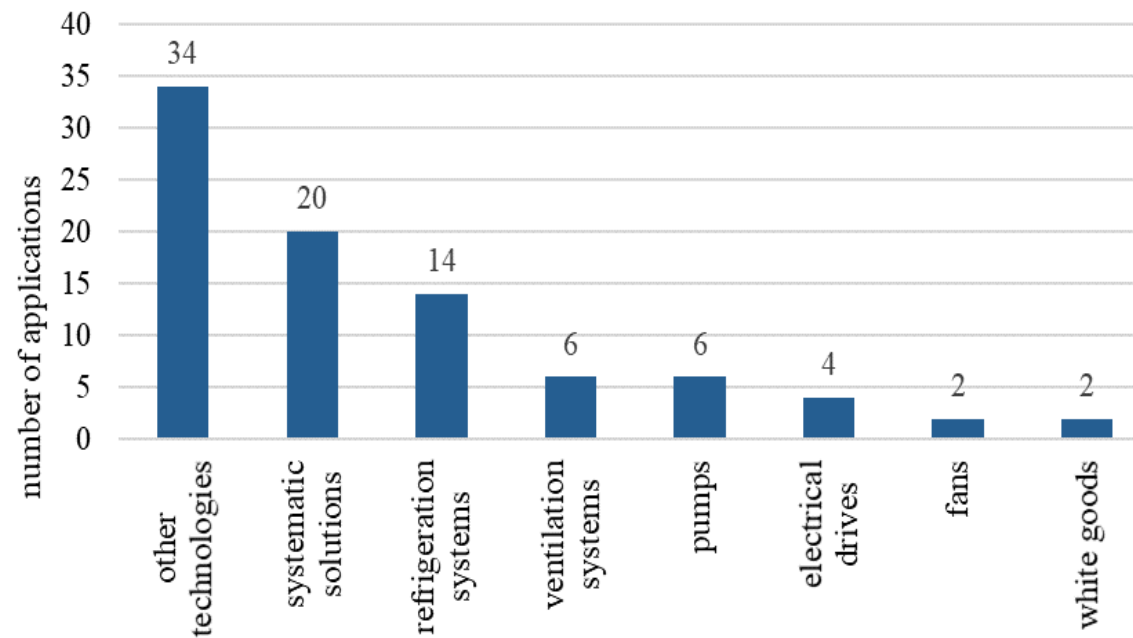


The following **adjustments** have been made:

- ✓ Strengthening of program marketing and application support
- ✓ Better targeting of internal and external events
- ✓ Reduction of the minimum funding amount to 20,000 € (collective projects to 100,000 €)
- ✓ Partially opening to heat savings in the closed tenders



- Focus lies on open tender individual projects
- Collection project gain a larger share
- Total funding amount: 30 million €
- Actors: SME, international concerns, utility companies, contractors



Main technologies:

- Cross-sectional technologies
- Systematic solutions and other technologies
- White goods – collection projects



Energy efficiency increase of the air conditioner in an existing data center

Costs

Total invest	1,331,000 €
Invest spent on efficiency (inkl. Additional costs)	730,000 €
Funding amount	218,000 €
funding rate	30 %

Savings

cost benefit ratio	0.014 €/kWh
(planned) electricity savings	1,560 MWh/a
(planned) GHG-emissions per year	800 t/a

Conditions

Utilisation time	10 years
Amortisation time without / with funding	5.4 / 4.4 years
duration	0.8 years



Acquisition of an energy-efficient induction coil in metalworking industry

Costs

Total invest	225,000 €
Invest spent on efficiency (inkl. Additional costs)	193,000 €
Funding amount	58,000 €
funding rate	30 %

Savings

cost benefit ratio	0.0093 €/kWh
(planned) electricity savings	630 MWh/a
(planned) GHG-emissions per year	320 t/a

Conditions

Utilisation time	10 years
Amortisation time without / with funding	4.4 / 3.1 years
duration	2 years

Lessons Learned

- Cost-effective measures were achieved (average 5 ct / kWh)
- higher risk and effort, lots of requirements but no higher funding rate
- adaptation of the requirements and conditions necessary: not too many restrictions, openness should be strengthened
- Suitable for systematic and individual solutions
- Due to complex application not suitable for micro-measures
- Program marketing is important
- Specific help and support from promoters necessary
- Professionalization necessary: multipliers and intermediaries must be prepared

The **new funding program** "Competition Energy Efficiency" started in April 2019...

- Open to all types of technologies, sectors and measures (heat & electricity,...)
- Competitive factor: CO2 savings of the measure (no limitation)
- Funding rate up to 50 %



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