



Third meeting of the project
“Monitoring of EU and national energy
efficiency targets” (ODYSSEE-MURE 2010)
Warsaw, 6-7 October 2011

SME program in Germany

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The Program: „Special fund for energy efficiency in small and medium companies (SMEs)”

The program was launched in 2008 by the Federal Ministry of Economics

1) Advice component

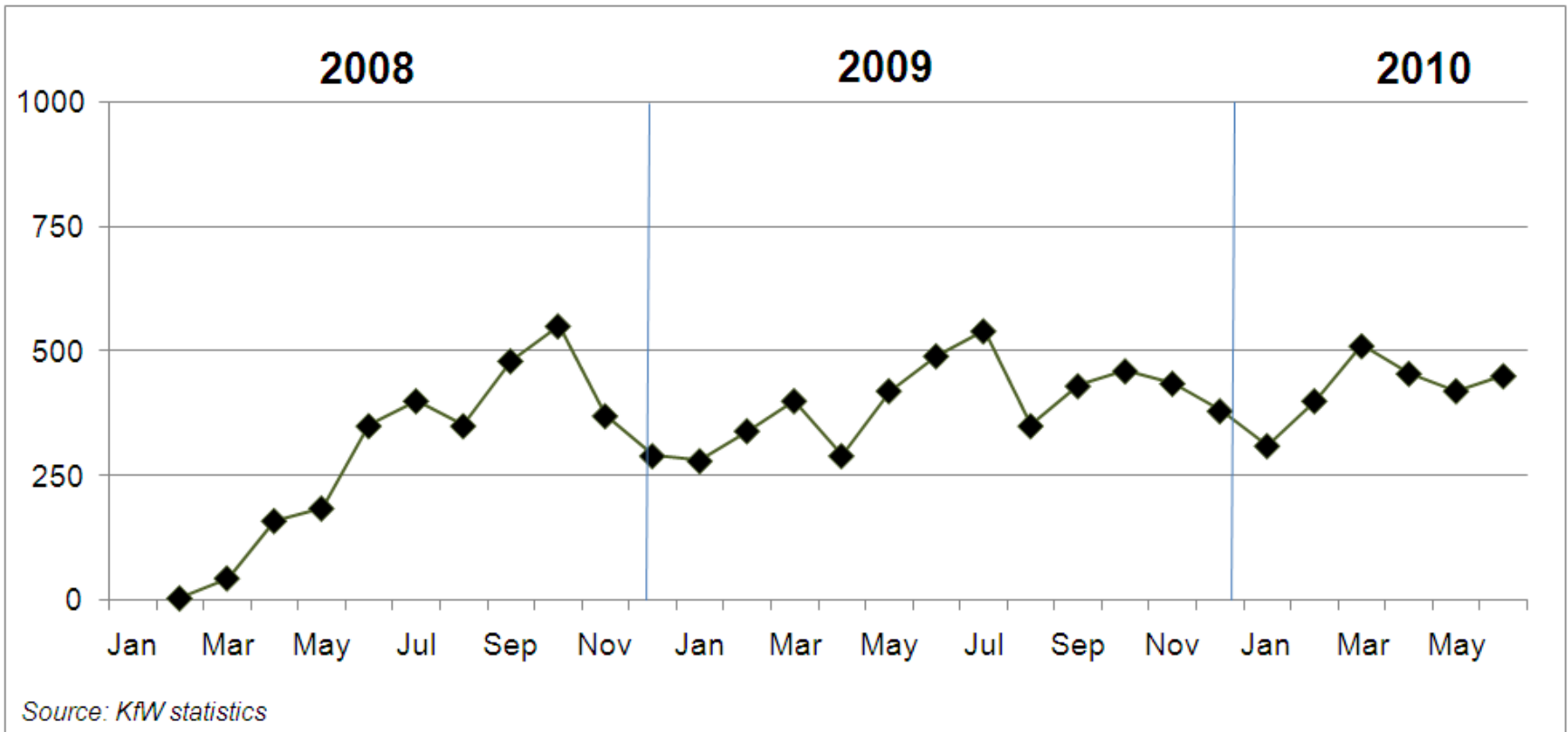
Evaluation by Fraunhofer ISI / IREES

- Subsidies for energy audits in SMEs:
 - ✓ Initial audit (screening) up to 2 days, 80 % subsidy
 - ✓ Comprehensive audit up to 10 days, 60 % subsidy
- Management of the program: KfW (German promotional bank)
- Applications, all contacts: regional partners
- Online search for consultants registered by KfW
- Forms for audit reports

2) Financial component

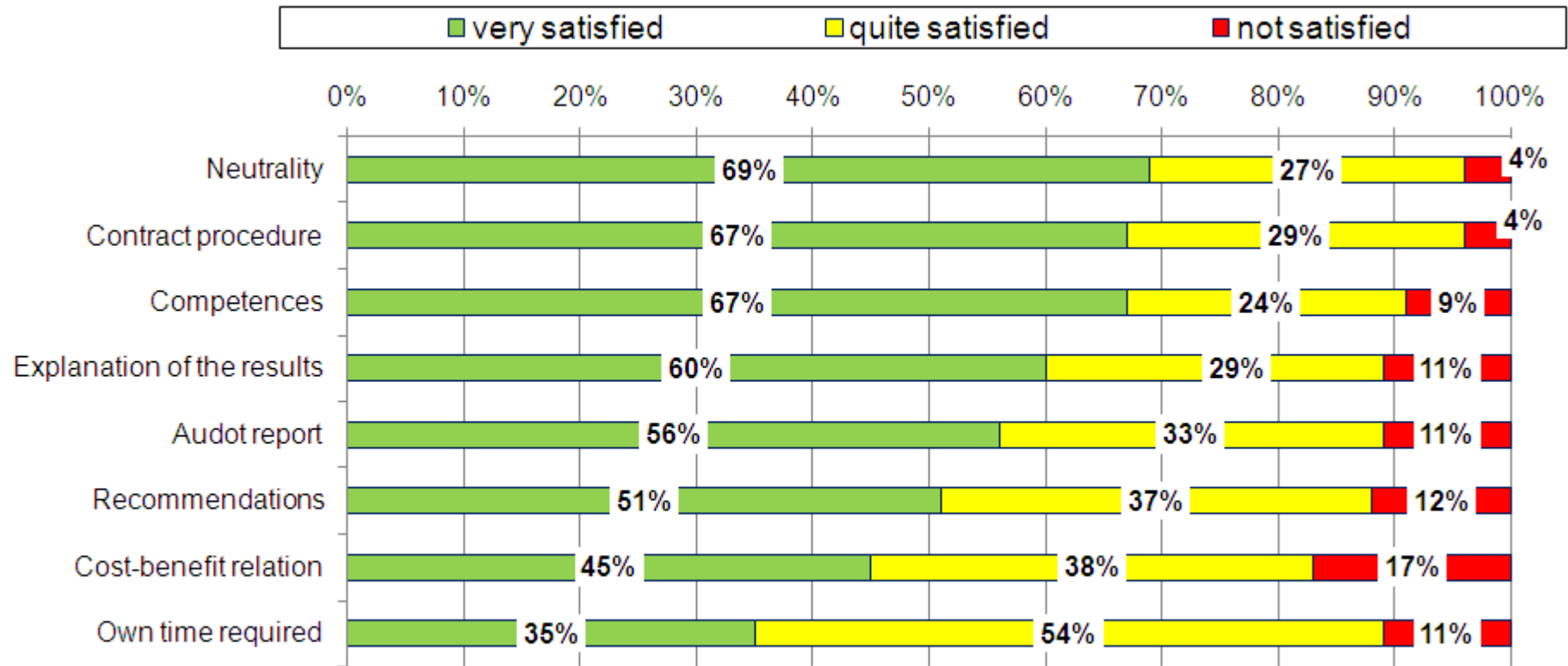
Low interest loans for energy efficiency measures by KfW

Program not yet known enough



- 80 % screening audits, 20 % comprehensive audits
- In total 10.400 applications approved

Customer satisfaction concerning the audits



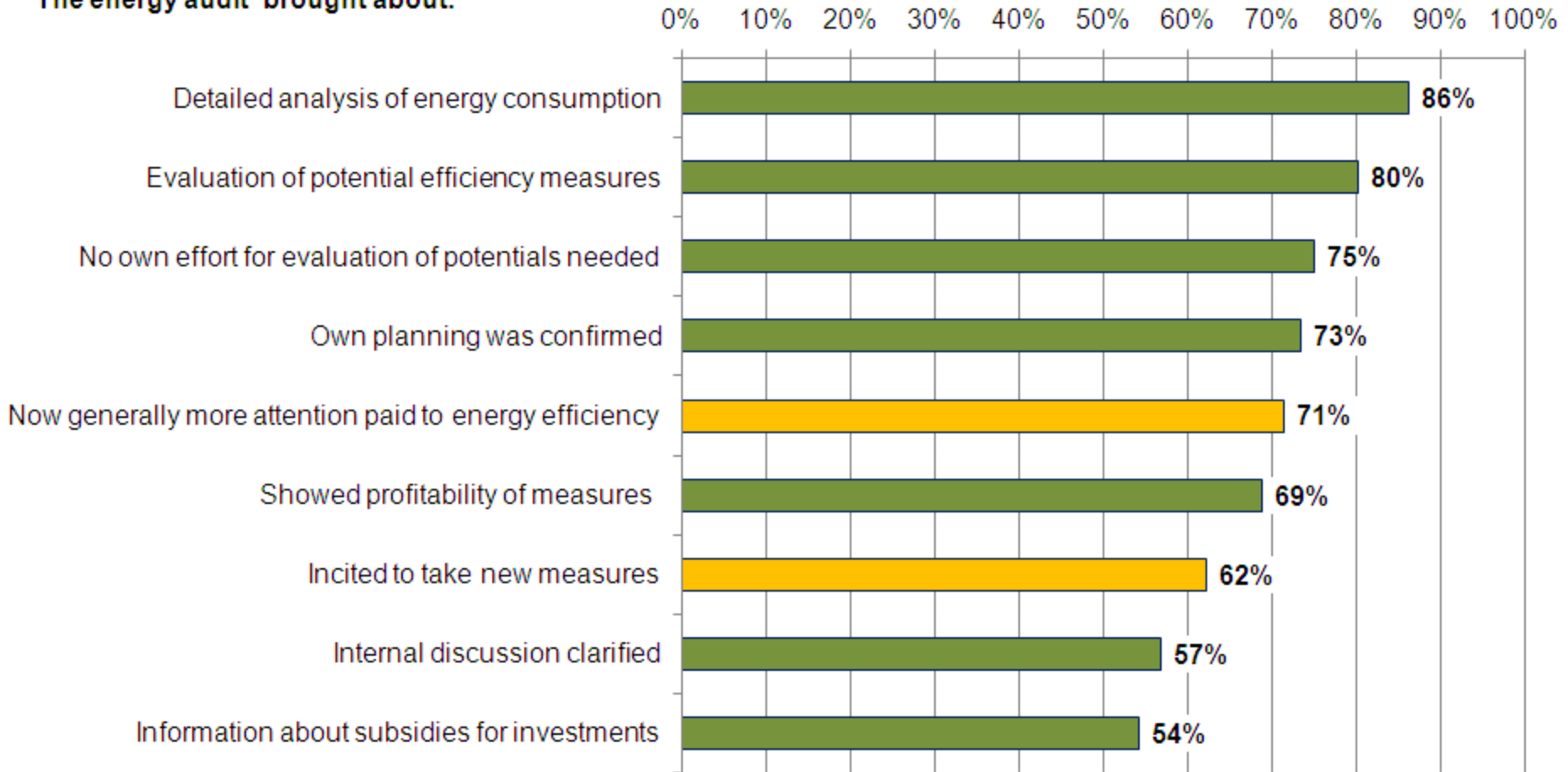
Source: company survey

- Evaluation of reports by experts: good quality



Impact for the companies audited

The energy audit brought about:

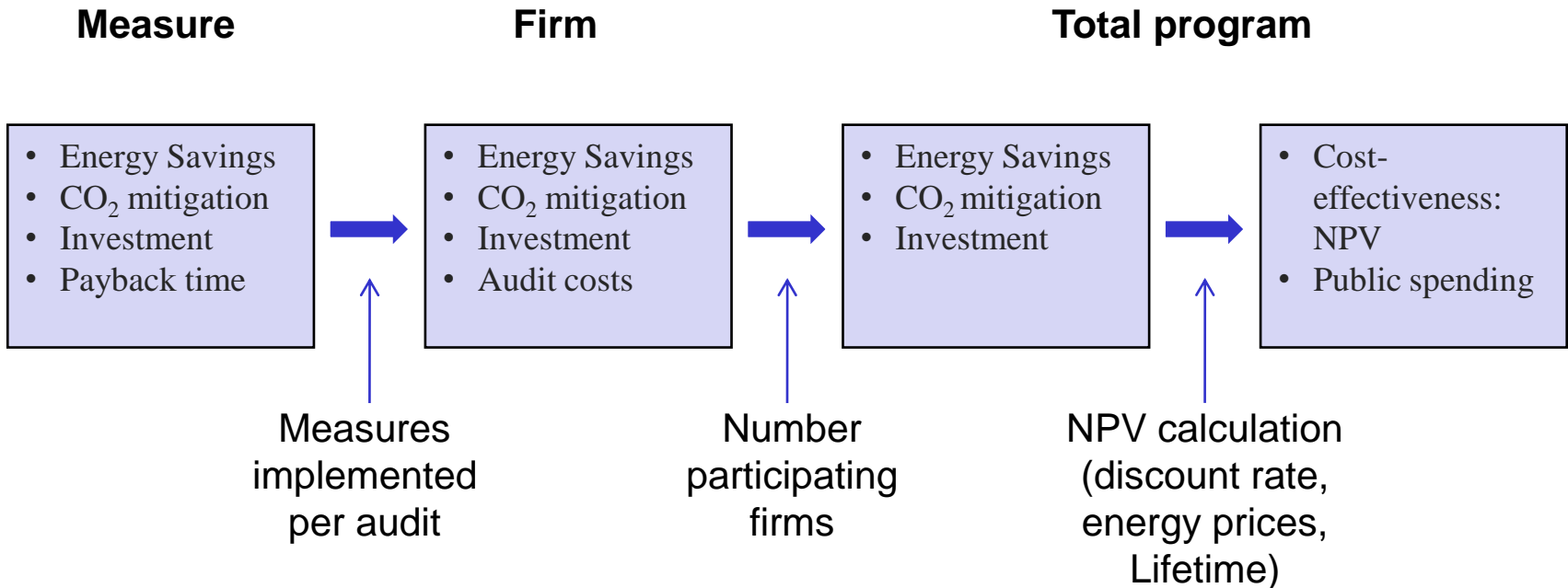


Source: company survey

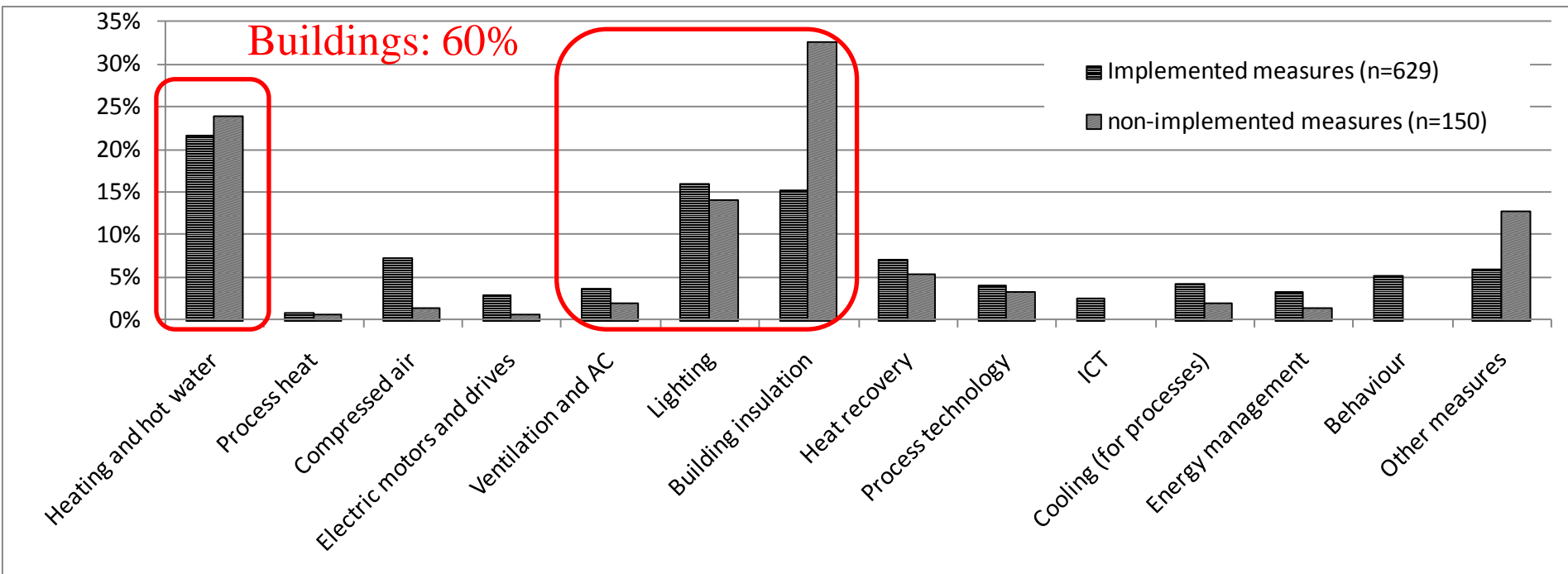
ISI

Impact assessment: calculation approach

Not possible : metering, comparison of the energy bills before – after, comparison with a control group



Energy saving measures by type (implemented and not implemented)



Energy savings: ca. 70 MWh per measure, 25 % electricity, 75 % fuels

Investments: ca. 23,000 € per measure (processes 50,000 €, lighting 5,000 €, compressed air 7,000 €, behaviour & small investments 400 €)

Payback period: 6 years on the average (but 50% <5 years)



Impact per measure and per firm

	Measure	Per firm	
		Including planned measures	Excluding planned measures
Average Energy savings	247 GJ/a	711 GJ/a	423 GJ/a
As share of firm energy demand	1.7 %	5.0%	3.0%
Average CO ₂ savings	27 t CO ₂ /a	63 t CO ₂ /a	37 t CO ₂ /a
Average investment	23,000 €	66,300 €	39,400 €
Average payback time per measure	6.1 years	-	-

Indicators for the cost-effectiveness of the program

	Low	High
Total energy savings	29 TWh	38 TWh
CO ₂ emission reduction	9,000 kt CO ₂	11,000 kt CO ₂
Programme costs per € investment induced	0,03 €	0,03 €
Programme costs per energy saved	0,7 € / MWh	0,5 € / MWh
Programme costs per CO ₂ reduction	2,1 € / t CO ₂	1,6 € / t CO ₂

for the period 2008 to 2029, two scenarios.

- low: 10% discount rate, 15 years average lifetime, low energy prices
- high: 6% discount rate, 20 years average lifetime, high energy prices



Conclusions

- Good image of the programme
- SMEs of all sizes and sectors use it
- Audits reveal considerable energy efficiency potentials
- Customers are satisfied, many of them follow the suggestions
- Success factors:
 - high percentage of subsidies
 - activities and personal contacts of regional partners
 - quality of the audits
- Still to improve:
 - search process to find consultants, quality control of consultants
 - forms for reports to give more specific information

The program promotes the market of energy efficiency technologies and contributes significantly to establishing a large pool of qualified energy efficiency consultants in Germany.

Contact

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