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Overview Of The German Energy Efficiency Market

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Outline

- Context and concept
- Quick figures
- Scoops on selected consumer groups



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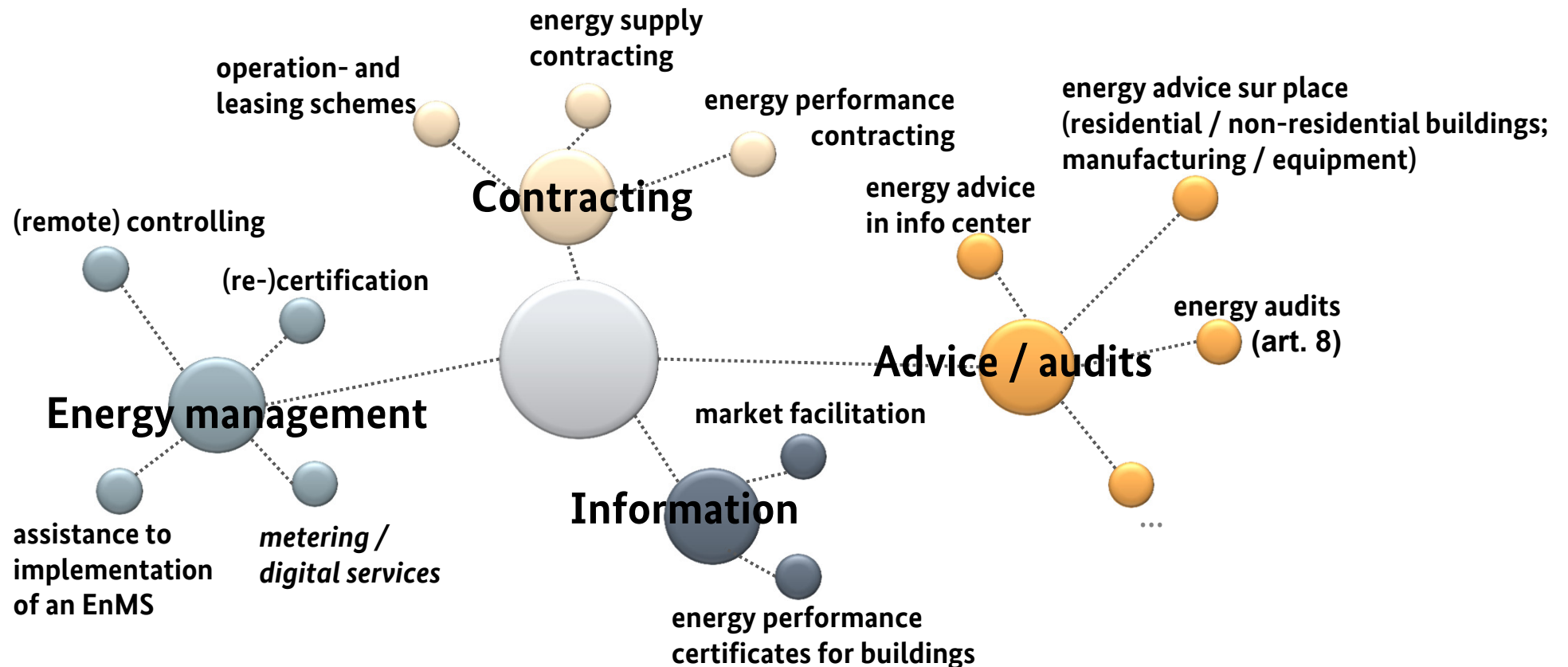
CONTEXT AND CONCEPT

Background

- Energy efficiency market investigated by private actors
 - IER regularly composes industry energy efficiency index
 - German energy agency (dena) irregularly publishes smaller studies on various market aspects
 - Business association DENEFF
 - annually considers products, materials and services associated with energy efficiency
 - estimates market volume for 2016 at **143 billion €** based on small-n survey
- Energy Services Act Of 2010 stipulates FEEC's observation of the market for energy services, energy audits and other energy efficiency measures
 - total turnover with energy efficiency services 2016 ca. **9 billion €** (conservative estimate)



Service Products And Market Segments





Method

- Comparability to ADEME assessment limited
- FEEC does not include i.e.
 - Engineering studies (1.7 billion € in France 2015)
 - Installation and maintenance of district heating (2.1 billion € in France 2015)
 - Coaching and standard metering services
- Desktop study, expert interviews, large-n telephone and online surveys
 - demand side: 3008 private households, 2757 companies; CATI
 - supply side: 210 suppliers via telephone and 1590 suppliers via web
- Public sector demand included from 2018 onwards



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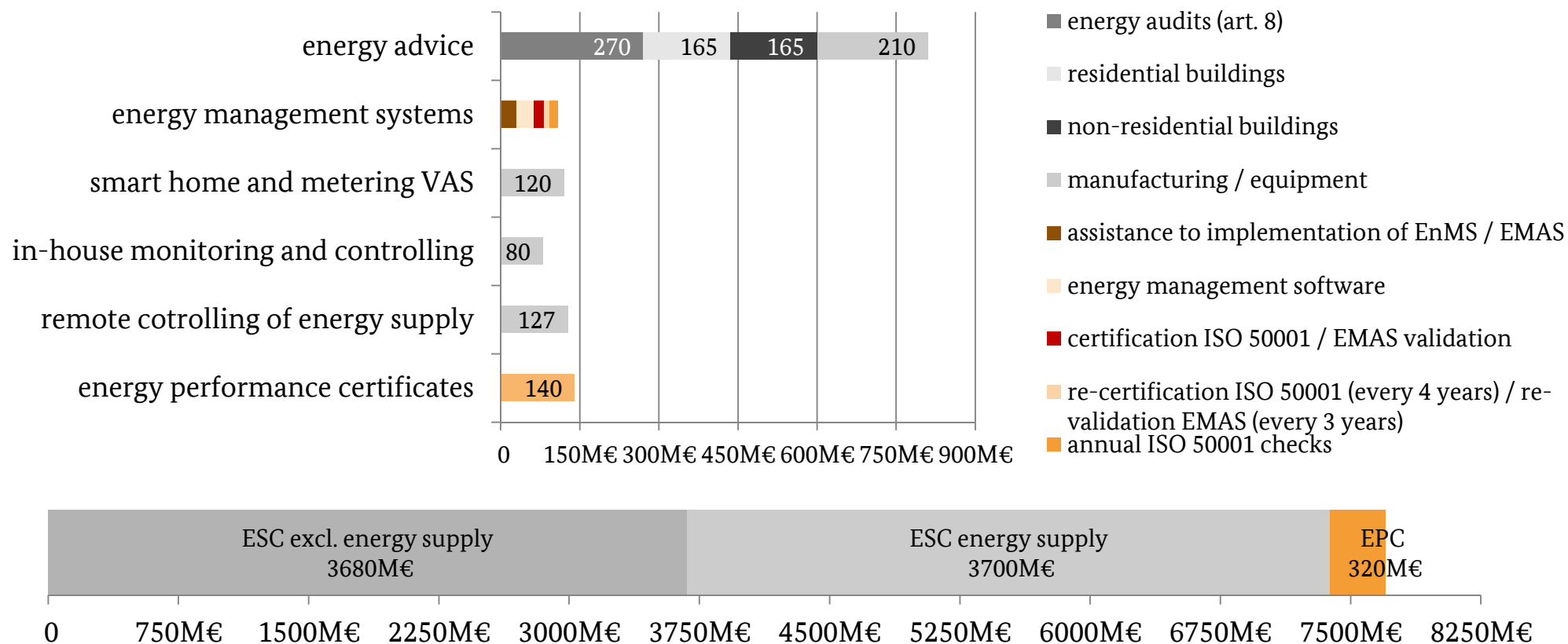
QUICK FIGURES

Prices of selected products (in Euro)

Energy Management Systems	
Assistance to implementation of EnMS / EMAS ca.	10.000
Software	
License ca.	8.000
Operation / maintenance ca.	6.000
Certification	
Certification ISO 50001 ca.	7.500
Annual check ISO 50001 ca.	3.500
Re-Certification ISO 50001 (every 4 years) ca.	6.000
Validation EMAS ca.	7.000
Re-Validation EMAS (every 3 years) ca.	4.000

Asset Analysis	
Energy efficiency advice	
Energy audit (art. 8) ca.	6.000
Energy advice: manufacturing / equipment ca.	5.800
Energy advice: non-RB sur place ca.	3.500
Energy advice: RB, complete, sur place ca.	1.300
Energy advice: RB, remote, ca.	120
Certificates	
Energy performance certificate RB ca.	500
Energy performance certificate non-RB ca.	1.600

Market Volume By Product



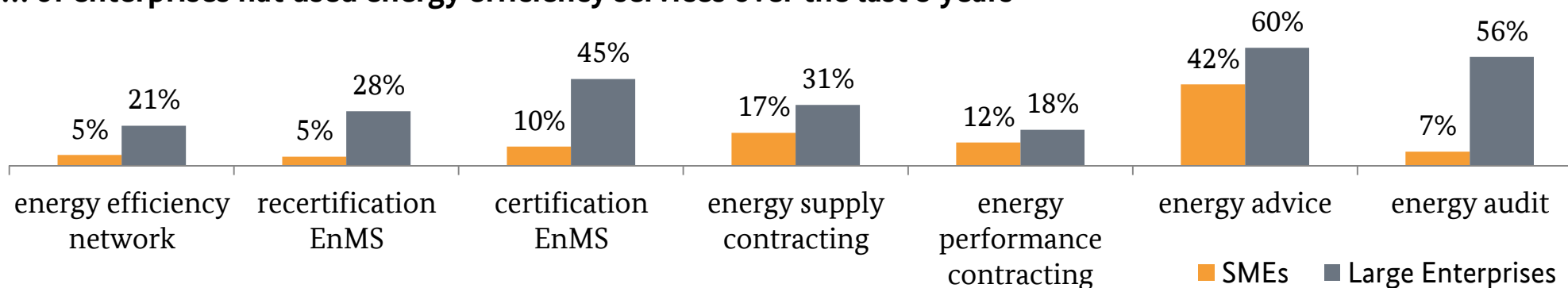


SCOOPS ON SELECTED CUSTOMER GROUPS

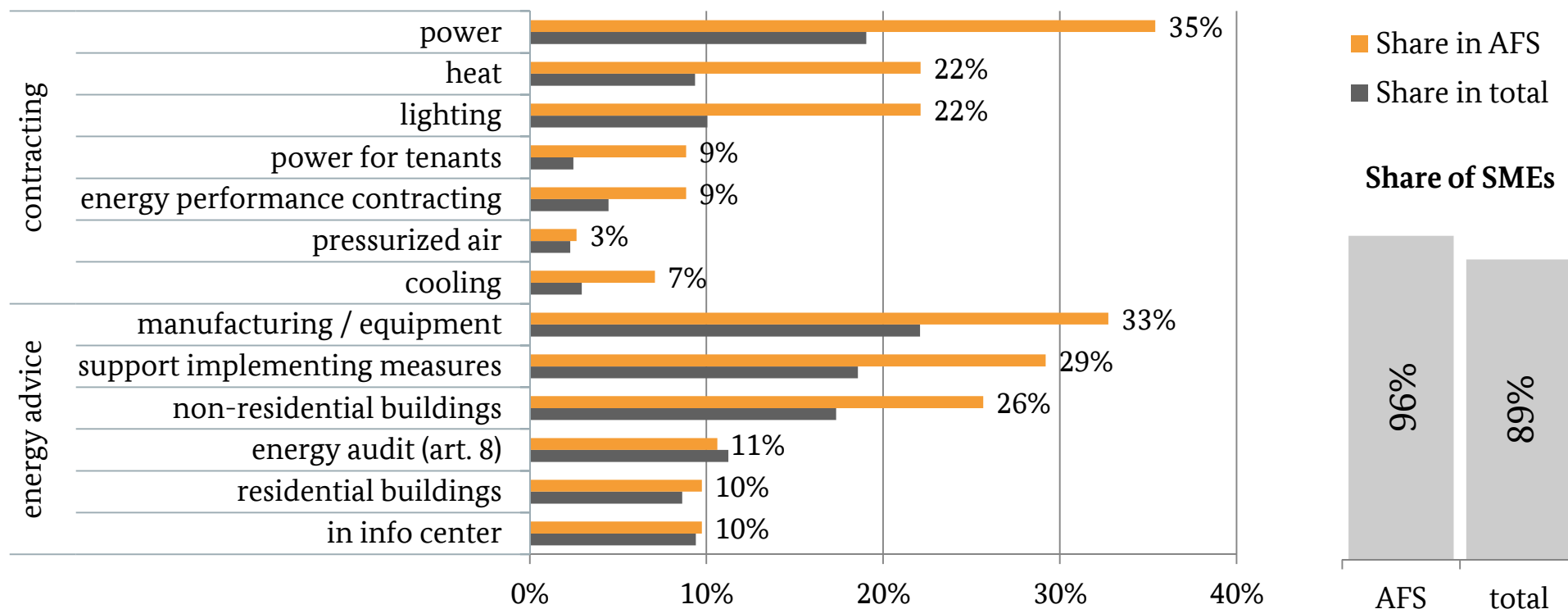
Companies Survey In Detail

Share	...of enterprises		... of turnover		...of gross investment in fixed assets		... of enterprises in survey	... of SML enterprises in Germany
Very Small Enterprises	81%		7%		11%		0%	
Small Companies	19%	16%	93%	11%	89%	15%	74%	81%
Medium Companies		3%		15%		16%	16%	15%
Large Companies		1%		67%		58%	10%	4%

... of enterprises hat used energy efficiency services over the last 5 years



Usage of selected energy efficiency service in accommodation and food services (AFS)



AFS n=136, total n= 2757, EDL-2017



Implementation of energy efficiency measures and key metrics

	Large enterprises (n=276)	SMEs		
		Total SMEs (n=2.481)	Trade in food products (n=81)	Construction (n=407)
Lighting	89 %	74 %	85%	70%
Information / Motivation of employees	78%	54 %	67%	53%
Optimization of production processes	43 %	25 %	28%	17%
Building renovation	42 %	21 %	23%	26%
Efficiency energy production (power, heat)	31 %	18 %	25%	21%
Cooling	44 %	18 %	56%	8%
Compressors, pumps, engines	43 %	16 %	15%	11%
Ventilation, air conditioning	38 %	15 %	19%	14%
No measures	2 %	11 %	7%	12%
No energy efficiency service	10%	45%	33%	53%
Average relevance of energy efficiency	6,89	5,62	5,99	5,15

Households' primary focus in implementing energy efficiency

	maintenance / repairs	lower energy cost	energy environment	comfort	more space	enhance property value	age-based	safety and security	total number
up to 1000 Euro	29%	36%	0%	2%	0%	2%	12%	12%	91
1000 to less than 1500 Euro	37%	21%	5%	0%	0%	4%	15%	9%	132
1500 to less than 2000 Euro	48%	11%	0%	1%	2%	3%	15%	19%	138
2000 to less than 2500 Euro	38%	20%	1%	1%	0%	10%	11%	14%	169
2500 to less than 3000 Euro	40%	24%	2%	1%	0%	8%	6%	18%	119
3000 to less than 3500 Euro	54%	22%	3%	3%	0%	1%	8%	9%	107
3500 to less than 4000 Euro	53%	24%	2%	1%	3%	9%	6%	1%	82
4000 to less than 5000 Euro	56%	12%	1%	4%	0%	9%	5%	12%	111
from 5000 Euro	56%	22%	3%	4%	3%	5%	2%	4%	191
average	45%	19%	2%	2%	1%	6%	9%	11%	1198



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THANK YOU



Relevance of energy efficiency

		Average relevance of energy efficiency	Total number of enterprises in survey	Share of enterprises in survey	Share of those enterprises in Germany	Number of those enterprises in Germany
WZ08-C	Manufacturing	6,37	669	24%	7%	238.657
WZ08-D	Electricity, gas, steam and air conditioning supply	8,43	21	1%	2%	69.917
WZ08-E	Water supply, sewerage, waste management and remediation activities	6,12	33	1%	0%	11.769
WZ08-F	Construction	5,19	416	15%	11%	389.451
WZ08-G	Wholesale and retail trade, repair of motor vehicles and motorcycles	5,80	528	19%	19%	631.131
WZ08-H	Transportation and storage	5,56	166	6%	3%	114.650
WZ08-I	Accommodation and food service activities	6,43	114	4%	7%	248.453
WZ08-J	Information and Communication	5,01	102	4%	4%	131.445
WZ08-K	Financial and insurance activities	5,35	81	3%	2%	69.493
WZ08-L	Real estate activities	6,36	47	2%	5%	166.818
WZ08-M	Professional, scientific and technical activities	5,25	303	11%	15%	520.280
WZ08-N	Administrative and support service activities	4,96	129	5%	6%	216.907
WZ08-Q	Human health and social work activities	5,88	77	3%	7%	242.932
WZ08-R	Arts, Entertainment and Recreation	6,24	22	1%	3%	111.153
WZ08-S	Other service activities	5,55	49	2%	7%	234.254
Total		5,75	2757	100%	100%	3.397.310