

G20 ENERGY END-USE DATA AND ENERGY EFFICIENCY METRICS INITIATIVE

Rethinking end use data collection in the light of the global health crisis
 Online workshop, 29 October 2020

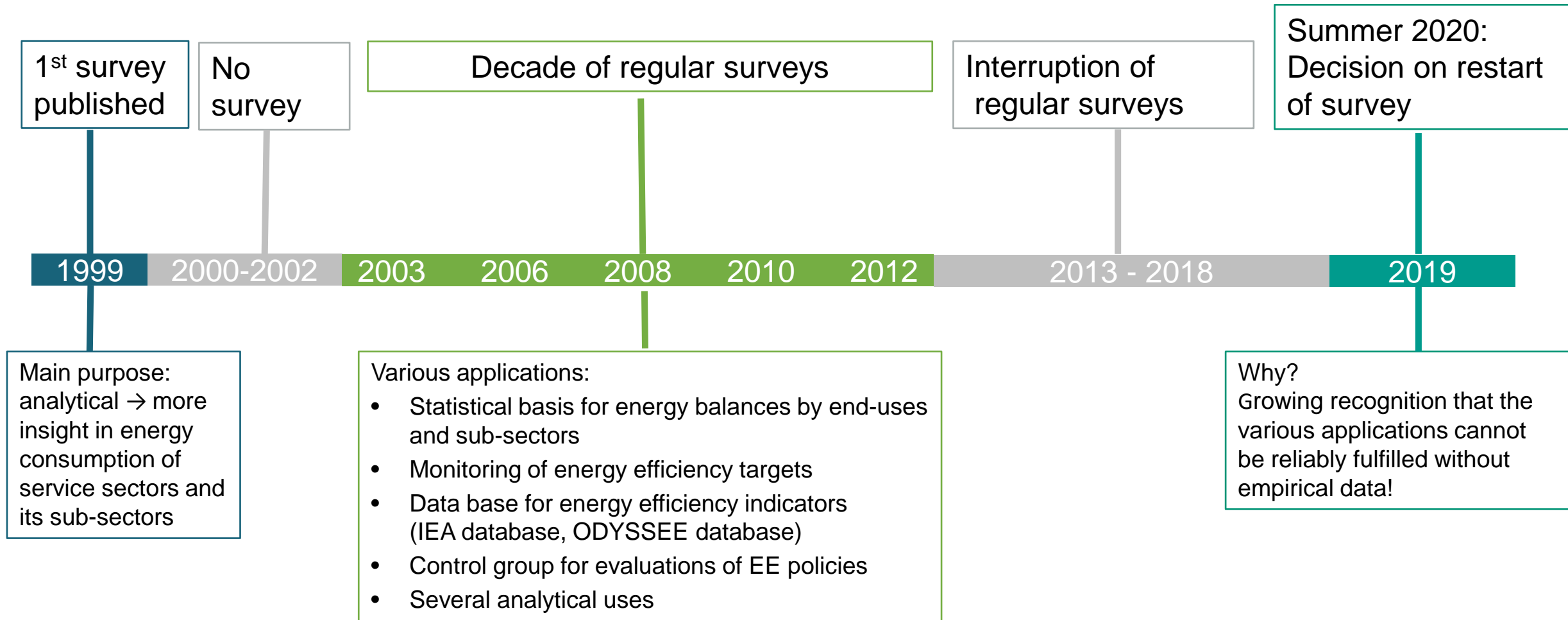
Surveys on energy consumption in the service sector – the German approach of data collection

Contribution to Session 2 – Deep-dive into the services sector

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Background	
Country	Germany S/Su/08
Organisation	Fraunhofer Institute for Systems and Innovation Research
Name of the survey	Energieverbrauch des Sektors Gewerbe, Handel, Dienstleistungen in Deutschland (Energy Consumption of the Tertiary Sector in Germany)
Services categories covered	<ul style="list-style-type: none"> Retail space Health care Education Warehouse Food sales Food service Lodging
Survey purpose	<ul style="list-style-type: none"> To collect physical building characteristics To collect energy consumption by equipment To track energy consumption over time To collect energy expenditure
Data collection	
Sample design	Stratified random sampling approach
Sample sources	List of addresses
Population description	The main focus of the survey was on sub-sectors (NACE classification), not on building types. Other sub-sectors: agriculture, construction industry, airports. Choice of certain number of companies (workplaces) within the tertiary sector.
Collection methods	Computer-assisted personal interview
Sample/Population size	2 100 / 70 000 Response rate 100%
Frequency	Every two years
Time to complete survey	120 minutes Mandatory No
Incentive	Non-cash incentives, short report on the survey results for the respective sub-sector and benchmark
Survey respondents	Person most knowledgeable with facility/enterprise energy consumption
Elements collected	<ul style="list-style-type: none"> Main building function Building floor area Building age Number of occupants/employees Energy bills from building operator Diffusion of office equipment Number of lights Diffusion of lighting by type Energy used Questionnaire on energy management issues
End uses covered	<ul style="list-style-type: none"> Space cooling Space heating Water heating Office equipment Auxiliary motors Lighting Process heat Process cold

History of data collection in the service sector in Germany



Survey Approach and Challenges

Survey approach 2003 – 2012

- Broad coverage of end-uses and sub-sectors
- Regular intervals (2 years), data compatibility
- Large sample size: 2.100 companies (net)
- Computer-assisted personal interviews (CAPI)

Aims and challenges of the new survey

- Change of collection method: CATI
- Collection year: 2019 (survey start: January 2021)
- Ensuring compatibility with previous surveys
- Add new elements:
 - Energy consumption for digitalisation / smart technologies
 - More focus on renewables and electric mobility

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Source:
IEA (2014): Energy Efficiency Indicators:
Fundamentals on Statistics

Thank you for your attention

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