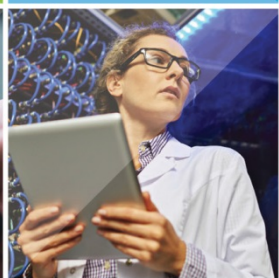




European  
Commission



# ARTICLE 8 OF THE ENERGY EFFICIENCY DIRECTIVE ON ENERGY AUDITS

Energy Workshop  
Energy Community  
Vienna, 23 November 2017

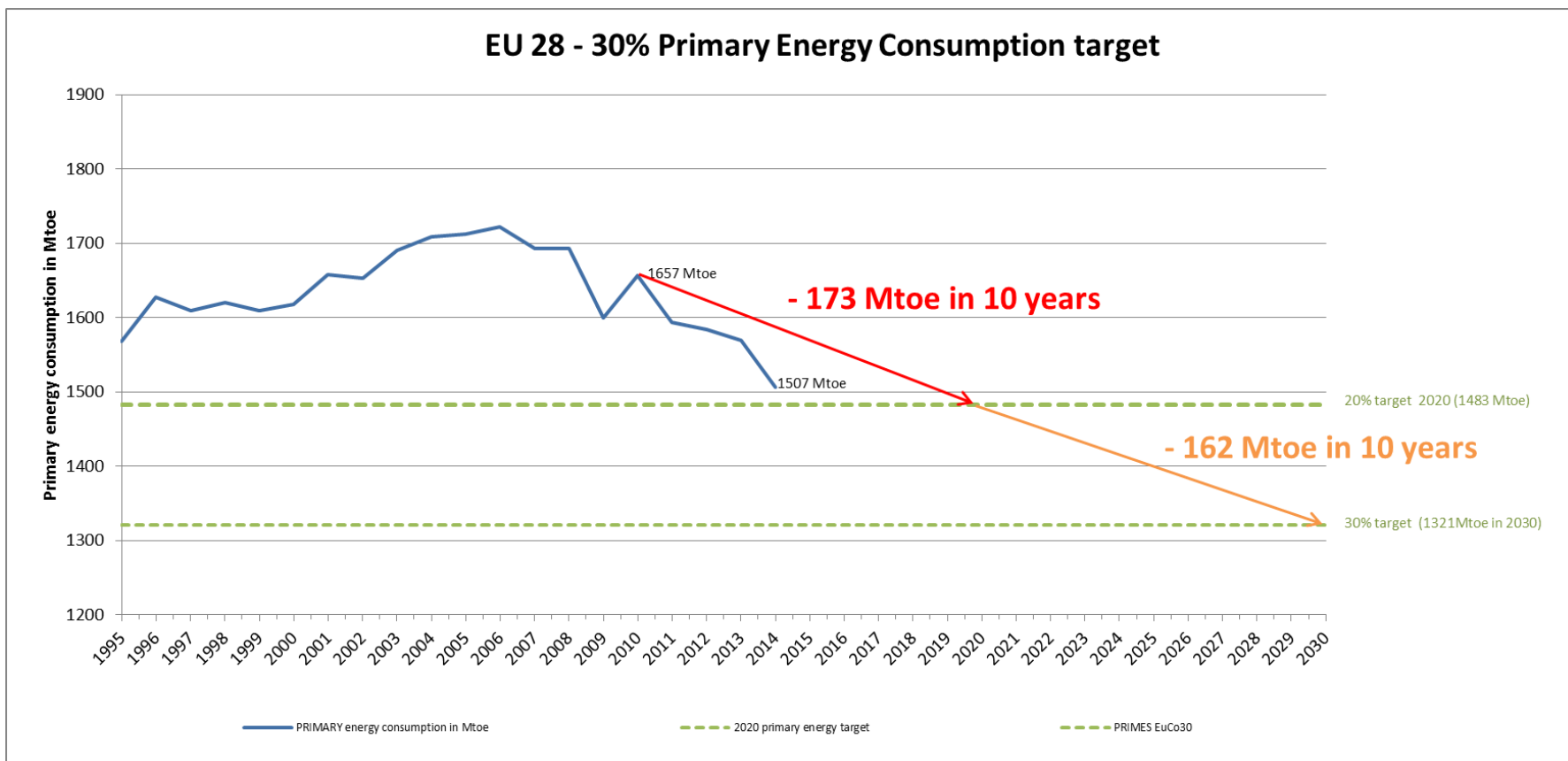
Claudia Canevari  
Deputy Head of Unit  
European Commission – DG ENERGY



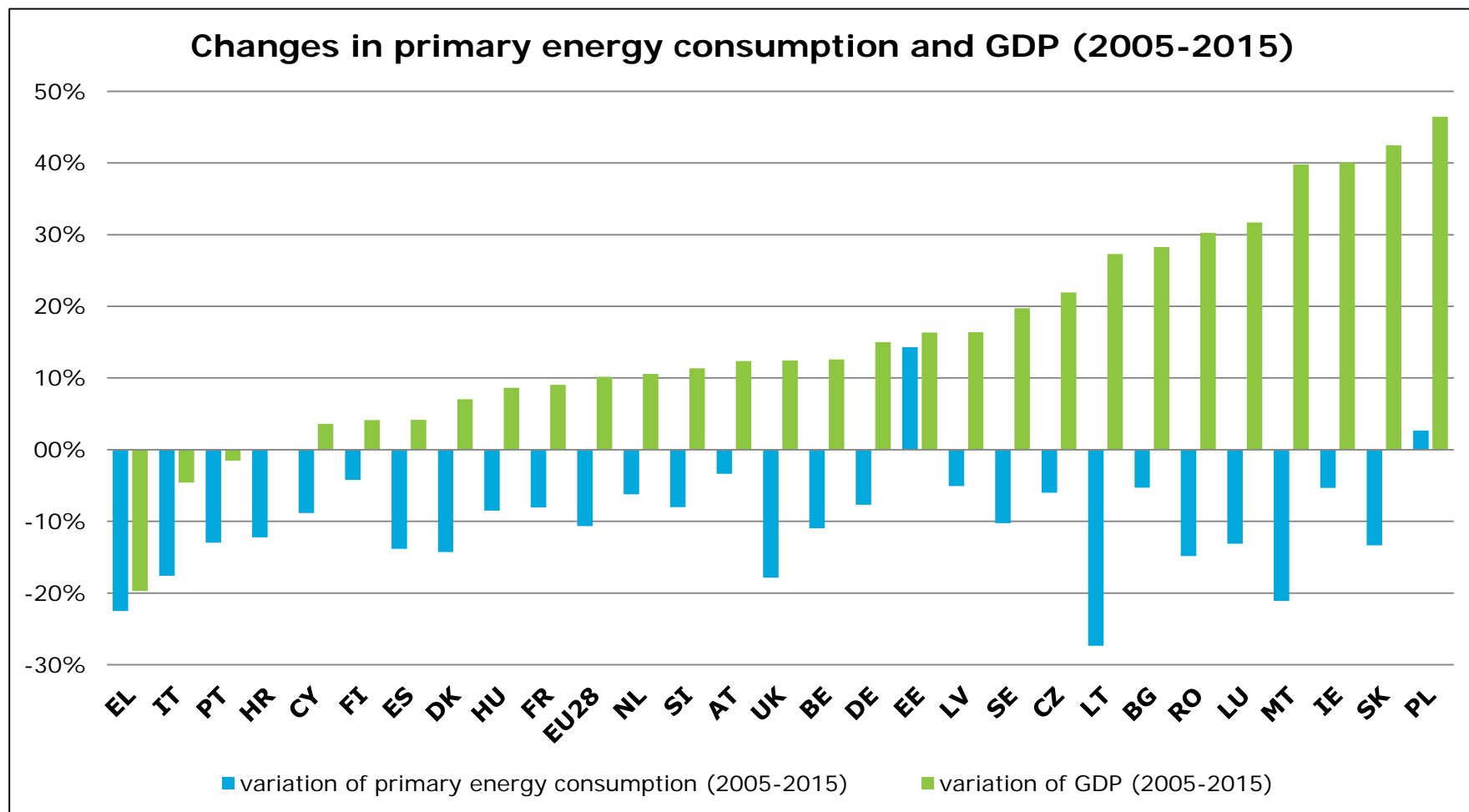


# THE CONTEXT

# Keeping the effort

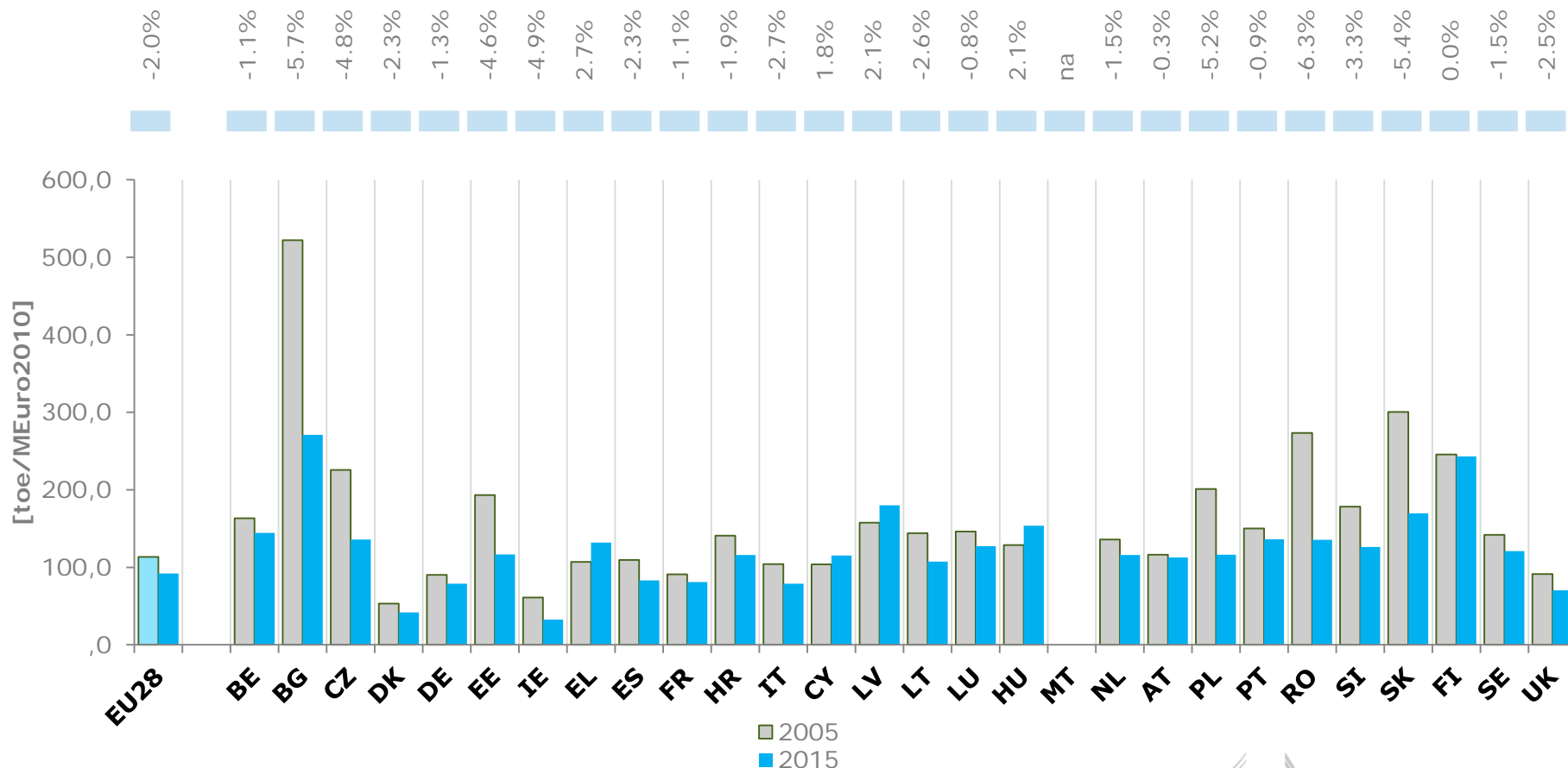


## TRENDS IN Primary Energy Consumption/GDP



# Final energy efficiency in industry

average annual change 2005 - 2015 [%]



Source: European Commission based on Eurostat data



# ARTICLE 8 OF THE ENERGY EFFICIENCY DIRECTIVE

## Major requirements

### Member States shall:

- §1: **Promote** the availability to all final customers of cost-effective, independent and supervised high quality **energy audits**.
- §2: Develop programmes to **encourage SMEs** to undergo energy audits and the subsequent implementation of the recommendations from these audits.
- §3: Also develop programmes to **raise awareness** among households about the benefits of such audits through appropriate advice services.
- §4-7: **Ensure** that **non-SMEs** are subject to an **energy audit** (first audit until 5 December 2015, thereafter every four years) based on minimum criteria (Annex VI) **or** they may implement an energy or environmental **management system** (which includes an audit).

## Mandatory requirements for large enterprises

### Member States shall ...

§4-7: **Ensure** that **non-SMEs** are subject to an **energy audit** (first audit until 5 December 2015, thereafter every four years) based on minimum criteria (Annex VI) **or** they may implement an energy or environmental **management system** (which includes an audit).



# An overview of the SME identification process

Step 1. Am I an enterprise?

Step 2. Which criteria need to be checked and what are the thresholds?

Step 3. What do these criteria cover?

Step 4. How do I calculate these data?

[http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition\\_en](http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en)

## Minimum requirements for audits (Annex VI)

- High-quality energy audits.
- Cost-effective energy audits.
- Up-to-date, measured and traceable data.
- Life-cycle cost analysis.
- Proportionate and representative audits.
- Detailed and validated calculations.



**Lesson learnt from EU implementation:** need for a dedicated Guidance document.

## Why are updated guidelines needed?

- Several **Guidance documents** adopted – including on Article 8.
- Considerable **experience accumulated** on Article 8.
- **Effectiveness** of measures and **their impact** can be increased.
- **Additional guidance** especially for cost-effectiveness, proportionality and representativeness of energy audits.
- **Who** are they for.

## Six questions to all EU Member States

1. The **number** of companies
2. Energy **consumption** in a given year
3. The **share** of audited energy consumption in total company's consumption (de minimis)
4. Estimated **energy saving potential**
5. Estimated **energy savings achieved**
6. Audit **costs** in euro or in man-days (in total and for each company site)

## Key findings from review of literature

Key points have been drawn out from the literature\*

- **Cost-benefit**
- **De minimis**
- **Clustering**
- **Sampling**

\* Article 8 studies/analysis, NEEAPs, Concerted Action reporting, legislation, guidelines, FAQs, etc.



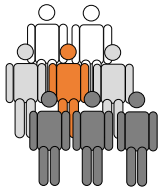
## NEXT STEPS

# An updated Guidance Document on Article 8



## Aim:

Prepare Guidelines for the application of the criteria on **cost-effectiveness**, **proportionality** and **representativeness** of energy audits.



## Process:

EED Committee.

Adoption by the European Commission.



## Approach:

Best practice in auditing, voluntary methodologies, small sites with low energy consumptions, multi-site and multi-national companies.

## Key themes for guidelines

1. **Cost effectiveness**
2. **Proportionality**
3. **Representativeness**
4. **Compliance**



# De Minimis

## Concept

- Proportion of energy use to be excluded
- Reduction of data to be gathered

## Challenges

- Limit/threshold
- Effectiveness

## Options identified

- Percentages of total energy use, energy use per energy/activity type; defined energy use; defined energy cost

## Next steps

- **Development of criteria/guidelines to set up a de minimis at national level (not appropriate to establish a threshold to be applied across the EU)**

# Clustering

## Concept

- Grouping energy use into similar clusters reduces the need to audit all activities

## Challenges

- Definition and level
- Representativeness and cost-effectiveness

## Options identified

- Clustering by site type, by activity type, by energy use or in combination

## Next steps

- **Development of common methods for clustering (and sampling – see next slide)**

# Sampling

## Concept

- Similar operations may have similar energy efficiency opportunities
- Samples need to be representative

## Challenges

- Prove reasonability
- Sampling harder for some energy uses than others

## Options identified

- Simple statistical sample
- Varying sample size based on number of sites
- Sample based on energy use
- Self determined flexible sample

## Next steps

- **Development of common methods for sampling and clustering**

## Updated Guidance document: Next steps

1. Feedback from national authorities by **24 November 2017**
2. Draft Guidelines to be circulated in **January 2018**
3. Next Committee meeting in **February 2018**

## General next steps

- Complete the work on the **Guidance document** (next round of audits in 2019).
- **Non-conformity checks of national implementation** of the EED.
- **Overall evaluation** of energy audits provisions (several studies already ongoing at national level in AT, DE, DK, IT, UK, etc.).

## Important aspects

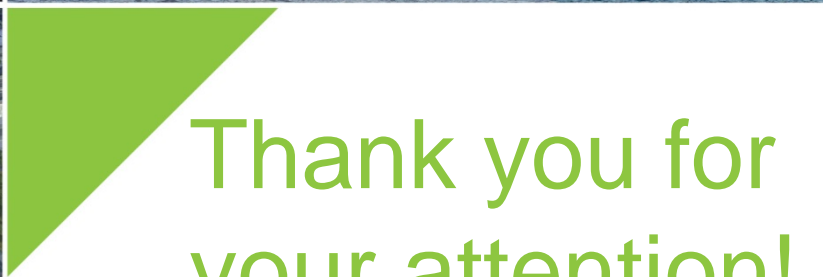
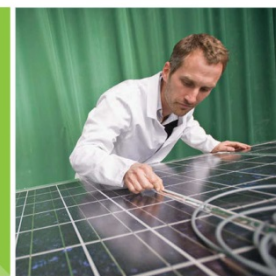
- **Focus on the follow-up of energy audits:** from the audit recommendations to a business plan.
- Better understanding of where the highest and more cost-efficient **energy efficiency potentials** exist (which sector/technology/process).
- Better understanding on the **barriers for investors – de-risking** instruments, benchmarking and indicators need to support the follow-up of energy audits.

## Further information

- **Energy savings and the potential in industry:**  
[https://ec.europa.eu/energy/sites/ener/files/documents/151201%20DG%20ENER%20Industrial%20EE%20study%20-%20final%20report\\_clean\\_stc.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/151201%20DG%20ENER%20Industrial%20EE%20study%20-%20final%20report_clean_stc.pdf)
- **Implementation of Article 8 of the EED:**  
[https://ec.europa.eu/energy/sites/ener/files/documents/EED-Art8-Implementation-Study\\_Task12\\_Report\\_FINAL-approved.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/EED-Art8-Implementation-Study_Task12_Report_FINAL-approved.pdf)
- **Commission Recommendation** of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (notified under document number C(2003) 1422), OJ L 124, 20.5.2003 (2003/361/EC).
- (Existing) **Guidance note on Article 8:** <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52013SC0447>



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Thank you for  
your attention!

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DG ENER, European Commission Website:

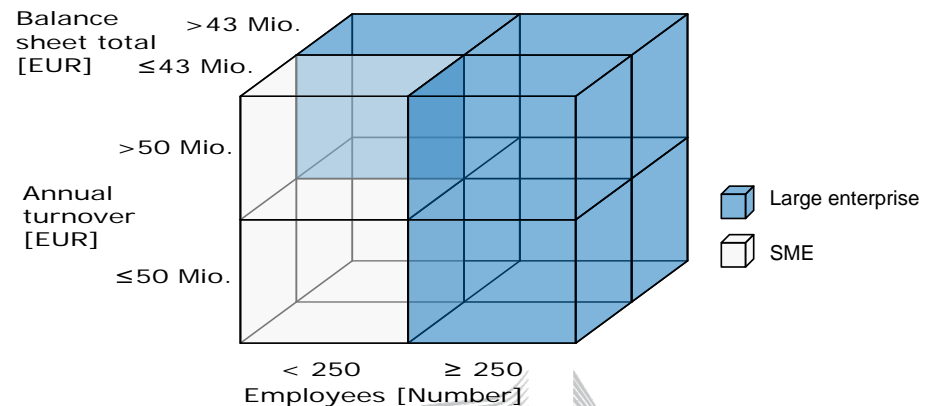
[http://ec.europa.eu/energy/efficiency/index\\_en.htm](http://ec.europa.eu/energy/efficiency/index_en.htm)



# Large companies: Definition of a non-SME

Employees	Turnover	Balance Sheet Total	Outcome	Reason
< 250	≤ €50m	≤ €43m	<b>SME</b>	Meets all criteria
< 250	≤ €50m	> €43m	<b>SME</b>	Meets main and one secondary criteria
< 250	> €50m	≤ €43m	<b>SME</b>	Meets main and one secondary criteria
< 250	> €50m	> €43m	Large	Only meets primary criteria
≥ 250	≤ €50m	≤ €43m	Large	Does not meet primary criteria
≥ 250	≤ €50m	> €43m	Large	Does not meet primary criteria
≥ 250	> €50m	≤ €43m	Large	Does not meet primary criteria
≥ 250	> €50m	> €43m	Large	Does not meet any criteria

## EU Definition



Note: Illustration focuses on the three main criteria. It does not take into account partner or linked companies.

## Encouragement of SMEs



**Question:** What have the Member States done to encourage or compel SMEs to undergo energy audits and the subsequent implementation of the recommendations from these audits?

- Approximately **50 instruments** in place across the Member States, but differently used in the countries (different number, coverage, intensity);
- General **policy approaches vary**: some countries have a stronger focus on voluntary agreements, others focus more on financial incentives.

# Key themes for the guidelines

## *Cost effectiveness*

- Ensuring that audits value is maximised
- Ensuring return on investment of audit and subsequent implementation
- Requires consideration of audit quality

## *Proportionality*

- Balancing the administrative effort with likely benefits (focus on small sites with low energy consumption)
- Providing focus and prioritisation for an audit plan

## *Representativeness*

- Addressing all energy uses equitably

## *Compliance*

- Achieving the above whilst ensuring compliance with Article 8
- Providing clarity to regulated enterprises

# Implementation of the approaches

