

Data collections related to energy efficiency and energy end-uses

EUROSTAT – European Commission

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Summary

➤ Introduction

- ✓ *Framework of Eurostat's involvement in data collection on energy efficiency and energy end use*

➤ Recent and current activities

- ✓ *Eurostat's work in the field: the example of disaggregated statistics on final energy consumption*

➤ Challenges met by Eurostat / reporting countries

- ✓ *First experiences, questions raised,...*



Introduction – *framework*

- Various European (EU) 'structures' collecting / compiling data on energy use and energy efficiency
 - ✓ European Commission
 - Policy DG's (Energy; Climate Action; etc.)
 - DG JRC (Joint Research Center)
 - DG Eurostat (*Statistical Office of the European Union*)
 - ❑ ...of which the *Energy unit*
 - 'Sponsored external partners'
 - ✓ EEA (European Environment Agency)
- How is the data collected?
 - ✓ **Official statistics**
 - ✓ Direct reporting (foreseen in specific binding documents)
 - ✓ Commission (EU-wide) funded projects



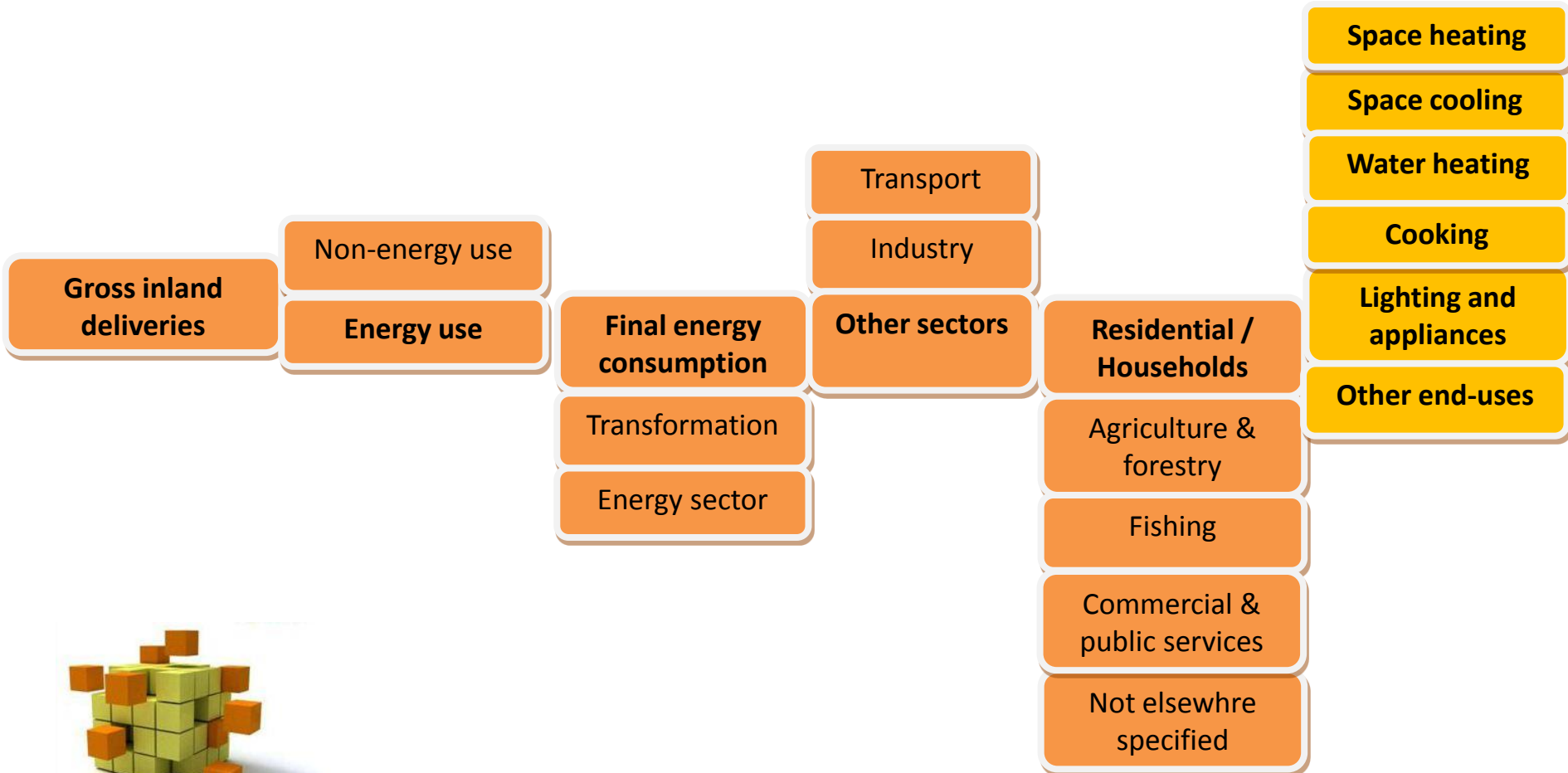
Eurostat's activities – *context*

- Data on energy supply and consumption already available for a high number of energy products and for most aggregated consumption sectors [*Industry, Services, Households...*]
 - ✓ Increasing need for more detailed data on the consumption side, in particular on final energy end-uses [based in particular on energy efficiency related policy needs]

- The Energy Statistics Regulation (ESR – *Regulation (EC) No 1099/2008 of the European Parliament and of the Council on energy statistics*) is the *legal basis* for the mandatory reporting of data on **energy quantities**
 - ✓ The ESR is binding for EU / EEA members [*Energy Community Contracting Parties also committed to implement the EU acquis in terms of energy statistics*]
 - ✓ Provides **legal mandate** for collecting more disaggregated statistics on final energy consumption (FEC) [art. 9]

Eurostat's activities – *recent steps*

- First step in this process has been to break down the existing statistics on Final Energy Consumption (FEC) in the *Residential / Households* sector by **type of end use**
 - ✓ New mandatory data collection asking for more details on the type of energy end uses in households consequently implemented through [Commission Regulation \(EU\) No 431/2014](#)
 - ✓ *'Other sectors – Residential'*
 - *Space heating*
 - *Space cooling*
 - *Water heating*
 - *Cooking*
 - *Lighting and electrical appliances (electricity only)*
 - *Other end-uses*



Eurostat's activities – *MESH project*

- Different situations across reporting countries
 - ✓ *National authorities* are in charge of collecting and validating the data taking into account their national / local specificities [responsible for the data quality]
- How to help reporting countries implement this new data collection?
 - ✓ No formal harmonized *reporting instructions* ['subsidiarity' principle applies] – but consistent and commonly agreed definitions in the *Energy Statistics Regulation* [ESR – Annex A]
 - ✓ *MESH – Manual for statistics on energy consumption in households*
 - Flexible and non-binding tool
 - Further details and explains the definitions provided in the ESR
 - Provides useful information / guidelines on how to develop / improve the data collection on final energy consumption in the residential sector according to the legislation



Eurostat's activities – *share of good practices*

- MESH Training in Madrid (Spain), 2-4 December 2013
 - ✓ Organised by the MESH project team as a way to better and broader disseminate the lessons learnt and the information gathered in the MESH project
 - ✓ Increased awareness of the challenges and needs for implementing the new data collection and accelerated the preparedness of many reporting countries
- Further dissemination of good practices and lessons learnt
 - ✓ Presentations in dedicated workshops / meetings [Eurostat's *Energy Statistics Working Group* – ESWG], country visits



Eurostat's activities – *other data collected*

- Eurostat collects not only energy related data but also important information on other (related) topics
 - ✓ Essential in order to build indicators [energy intensity, energy efficiency]
 - ✓ Important as no activity data as such is collected by the energy unit [difficult in the current framework as each domain is treated separately]
 - From a reporting country perspective, a better coordination is seen as necessary
 - ✓ Different frameworks: not always harmonized definitions and methodologies, different legal basis and policy purposes



Eurostat's activities – *ongoing processes*

- Next step: further disaggregation of statistics on FEC in the *Industry* sector [already split between several aggregated industrial activities – i.e. *Iron and steel, Food, beverages and tobacco, etc.*]
 - ✓ Organization of a *Task Force* whose main objective is to propose the breakdown keys to be used for a further breakdown [2 TF meetings have taken place in 2016, two more are foreseen for 2017]
 - Participants: 12 EU / EEA reporting countries and the IEA along the European Commission (EUROSTAT, DG Energy,...)
 - Proposal has to fit the needs of the European Commission as regards **policy monitoring**
 - ✓ Current stage of proposals: two-layer approach
 - NACE division based disaggregation + further end-use based disaggregation for selected sub-sectors [under discussion]
 - Final proposal expected by the end of 2017!
- Preliminary work on *Services* and *Transport* sectors to start in 2017
 - ✓ Determine the needs and already available data



Eurostat's activities – *related initiatives*

- When a new data collection has to be implemented or an older one is significantly modified, Eurostat might provide **grants** to EU Member States to **develop or improve their data collection system**
 - ✓ Ex: SECH project allowed 17 MS to finance work on statistics for FEC in households by type of end-use
 - It is expected that a similar process would be set-up for the disaggregation of FEC in the *Industry* sector over the period 2017-2018
- At international level, Eurostat cooperates with other IO's [in particular the IEA] in order to ensure that the level of **comparability** between existing similar data collections is as high as possible [taking into account the different frameworks]

Challenges for Eurostat

- Mandatory for Eurostat to take action [mandated by the *Energy Statistics Regulation* from 2008!!!]
- Needs mainly established by the policy priorities of the EU
 - ✓ *Energy efficiency* is high on the agenda, *heating and cooling strategy* adopted in 2016
- Involvement of MS needed in order to ensure consistent and sustainable reporting [modification of legal basis in the framework of the ESS – European Statistical System]



Challenges for reporting countries



- Where to start from [sometimes need to rethink the data collection process]
 - ✓ Methods to apply, *activity data* to collect, what model to use or how to build it?
 - ✓ *Turnkey solutions* are welcome
- Difficulty to measure consumption of energy in too much detail
 - ✓ Need for activity / other data as input for models / estimates
 - ✓ Flexibility is needed
 - High burden and costs [especially if need to involve regular surveys];
 - A certain level of harmonization required but some freedom is also expected to deal with specific circumstances
- Not always a solid legal basis at national level [voluntary surveys]
 - ✓ Data protection and confidentiality: statistical vs. fiscal purposes, data from individual companies
 - ✓ Sometimes big 'walls' between departments
 - Statisticians do not always have access to administrative data
 - Data available but different methodologies, definitions
 - Data matching and validation involved
 - Increased burden, need for collaboration with other departments

Thank you for your attention!

Questions?

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