Energy Efficiency Policy in Central Europe
Un/common challenges

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Outline

1. What is the status of energy efficiency targets and policies in Central Europe

2. What are the un/common challenges: why data matters

(with a strong focus on Czechia but with overlaps to the V4 region)

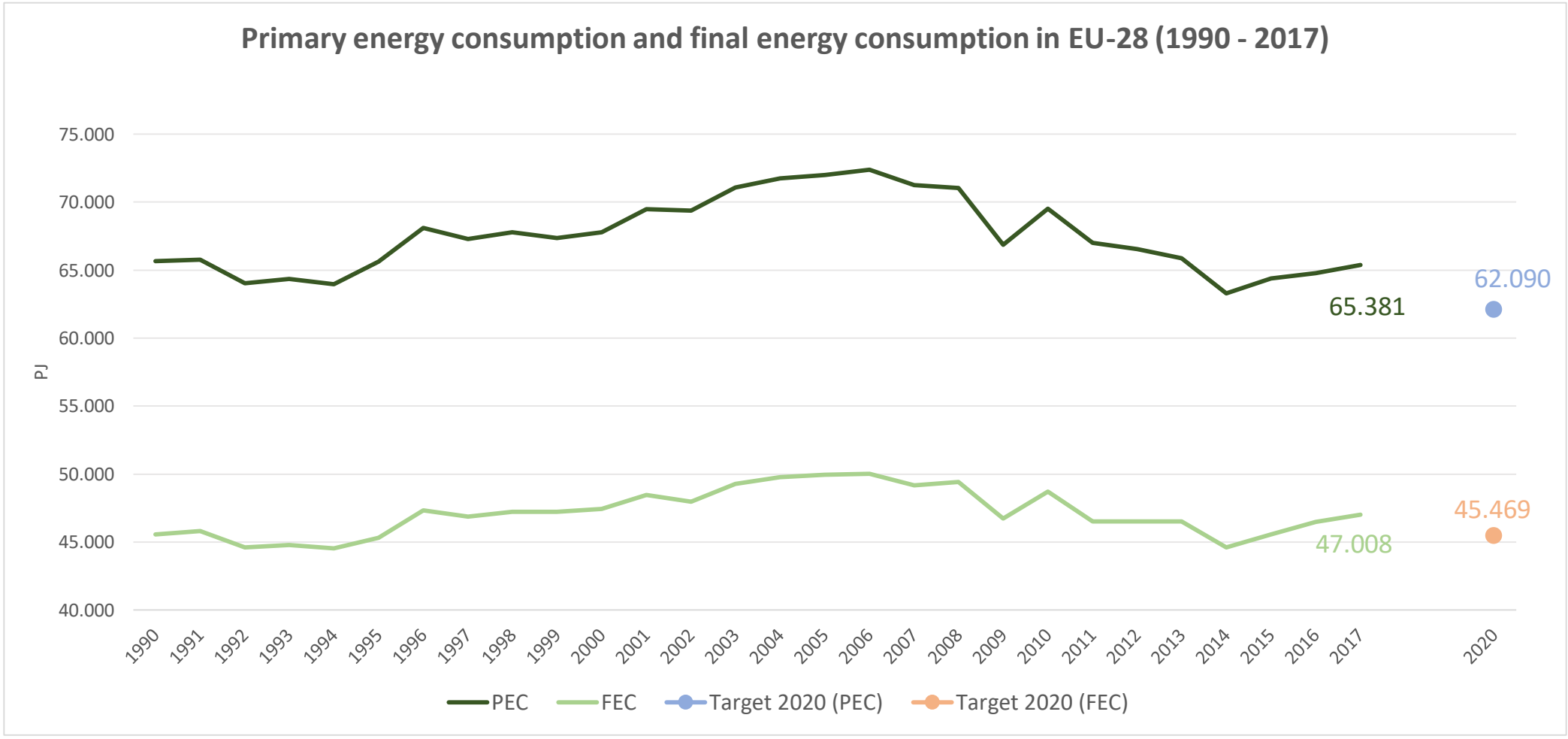
Energy efficiency first

20 % by 2020 for **32.5 % by 2030** (compared to the BAU scenario) and national indicative targets to reach this goal (EED Art. 1 and 3)

1.5 % of new savings (of annual energy sales) until 2020 and **0.8 %** until 2030 (annual final energy consumption) (EED Art 7)

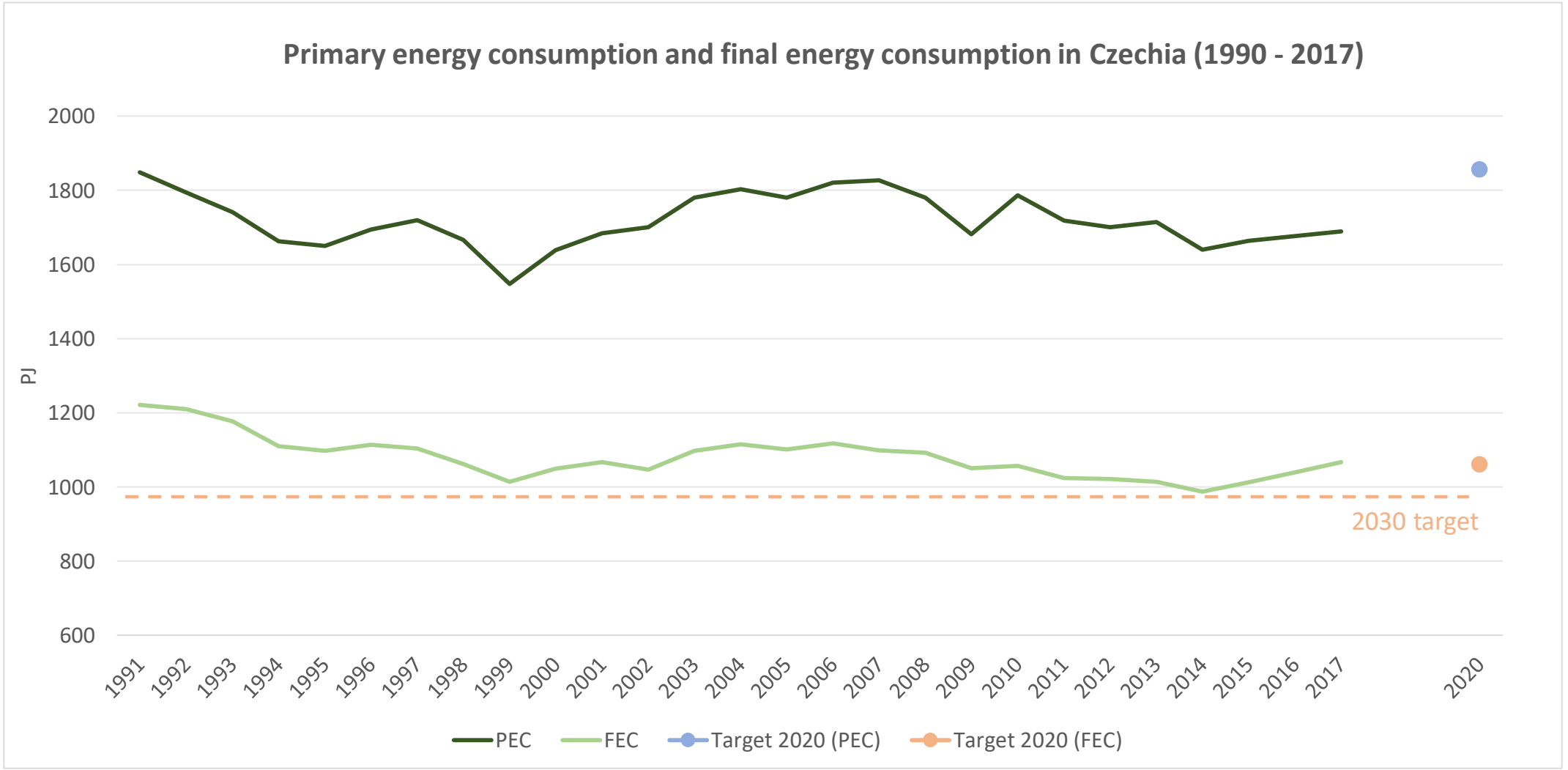
3 % of the total floor area of heated and/or cooled buildings owned and occupied by its central government is renovated each year (EED Art. 5)

Are we there, yet?



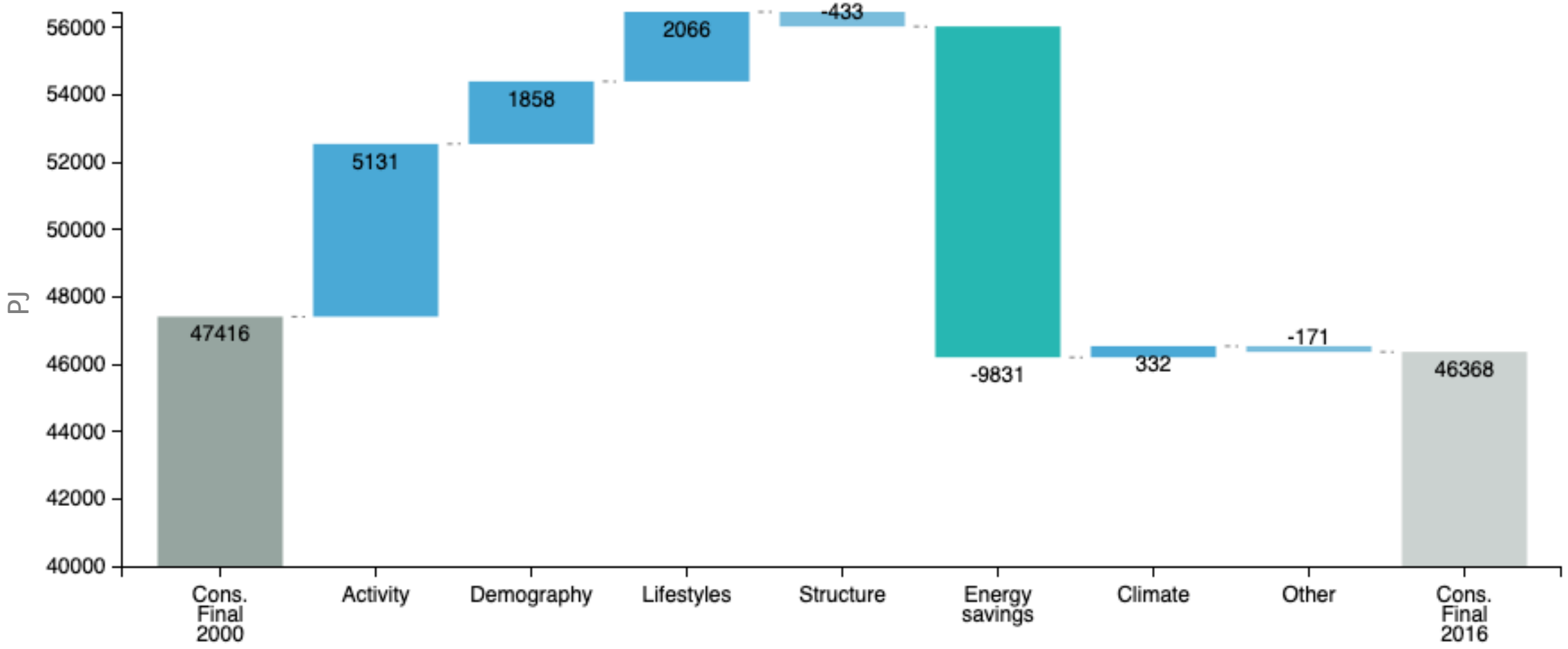
Source: Eurostat

Are we there, yet?



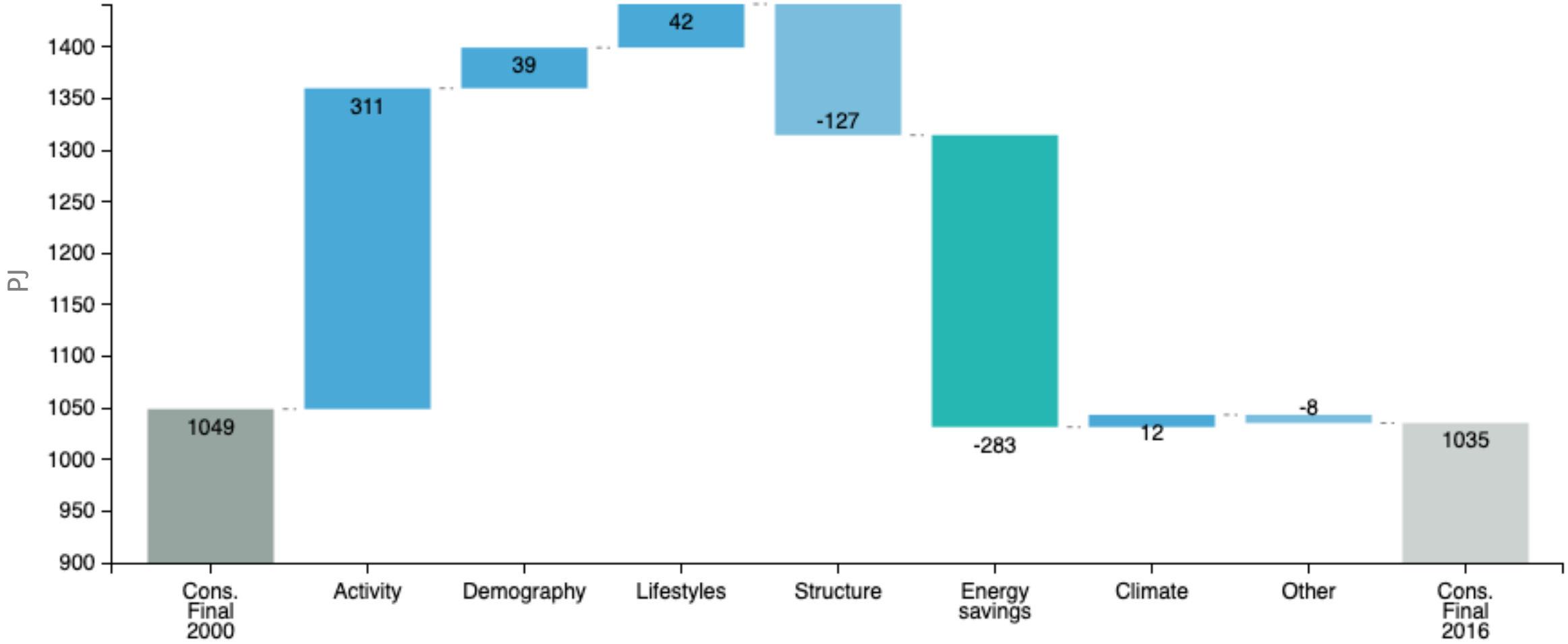
Source: Eurostat

Structural changes in energy consumption EU-28



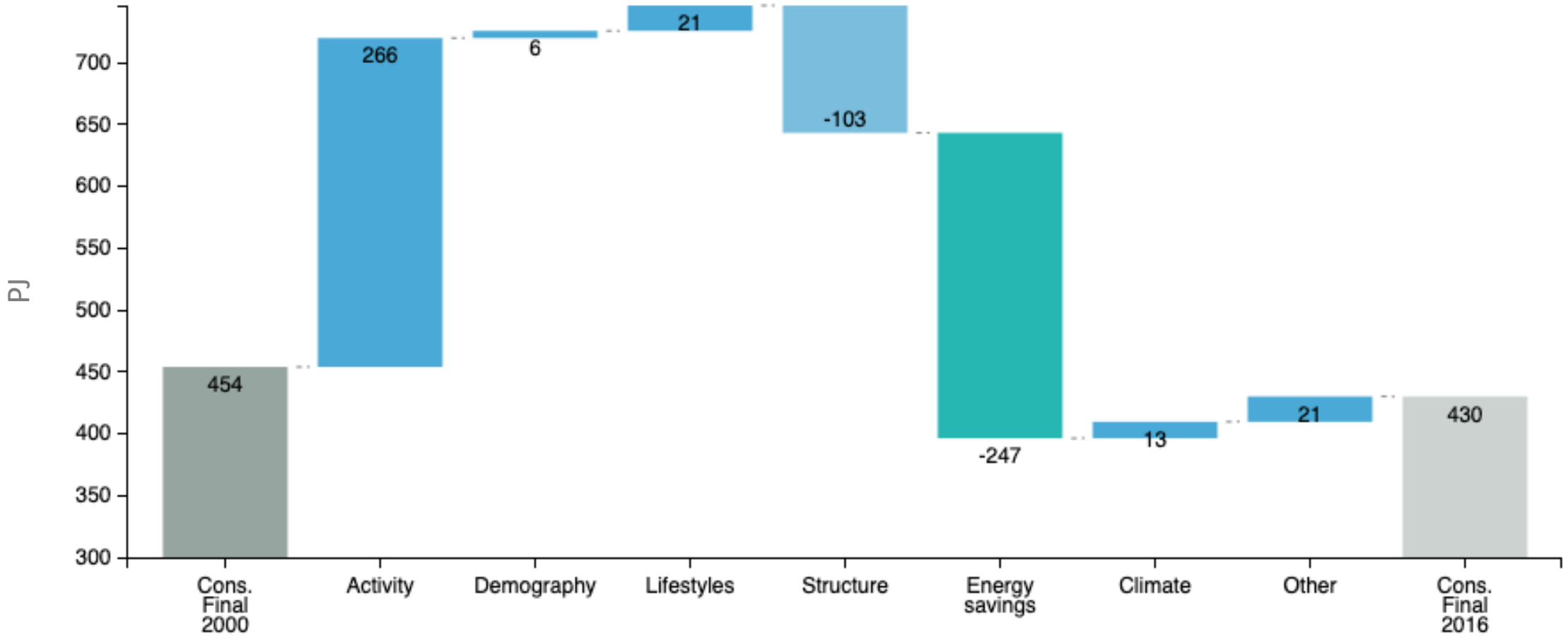
Source: ODYSSEE

Structural changes in energy consumption Czechia



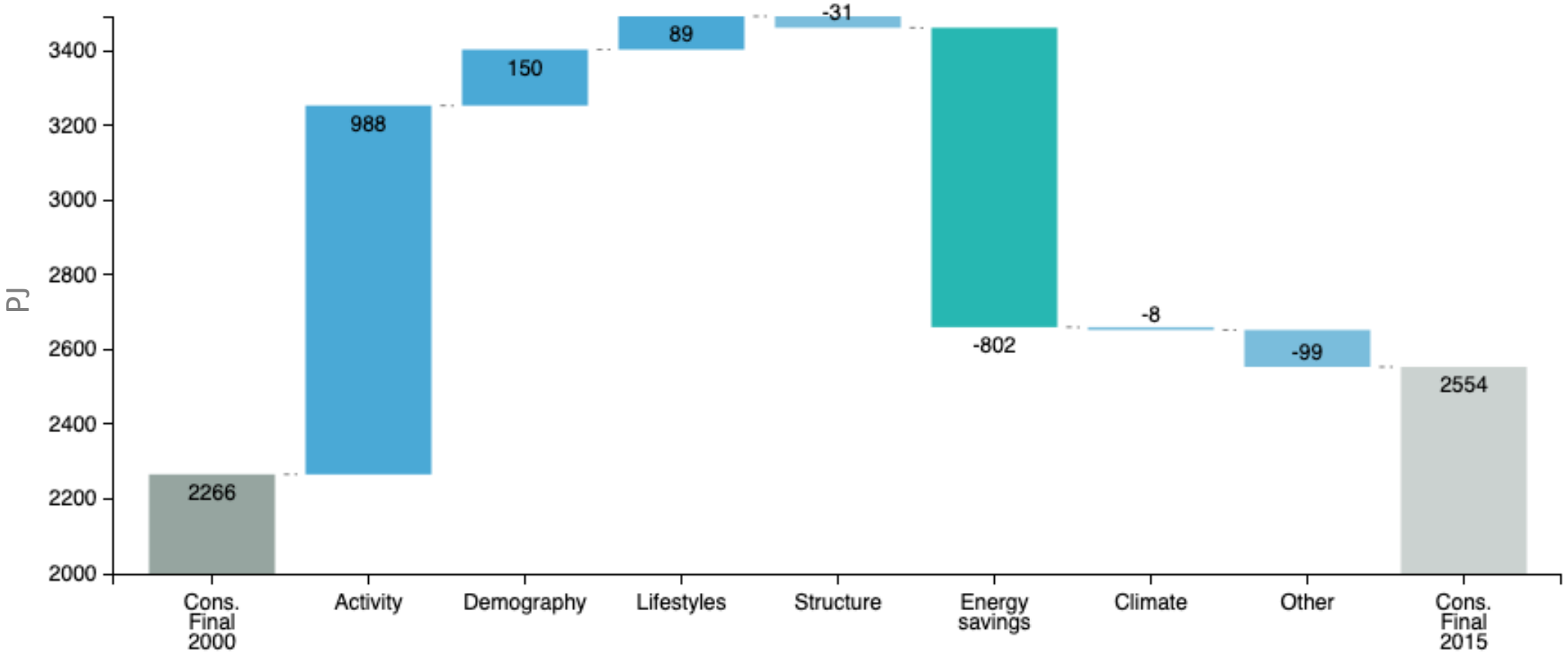
Source: ODYSSEE

Structural changes in energy consumption Slovakia



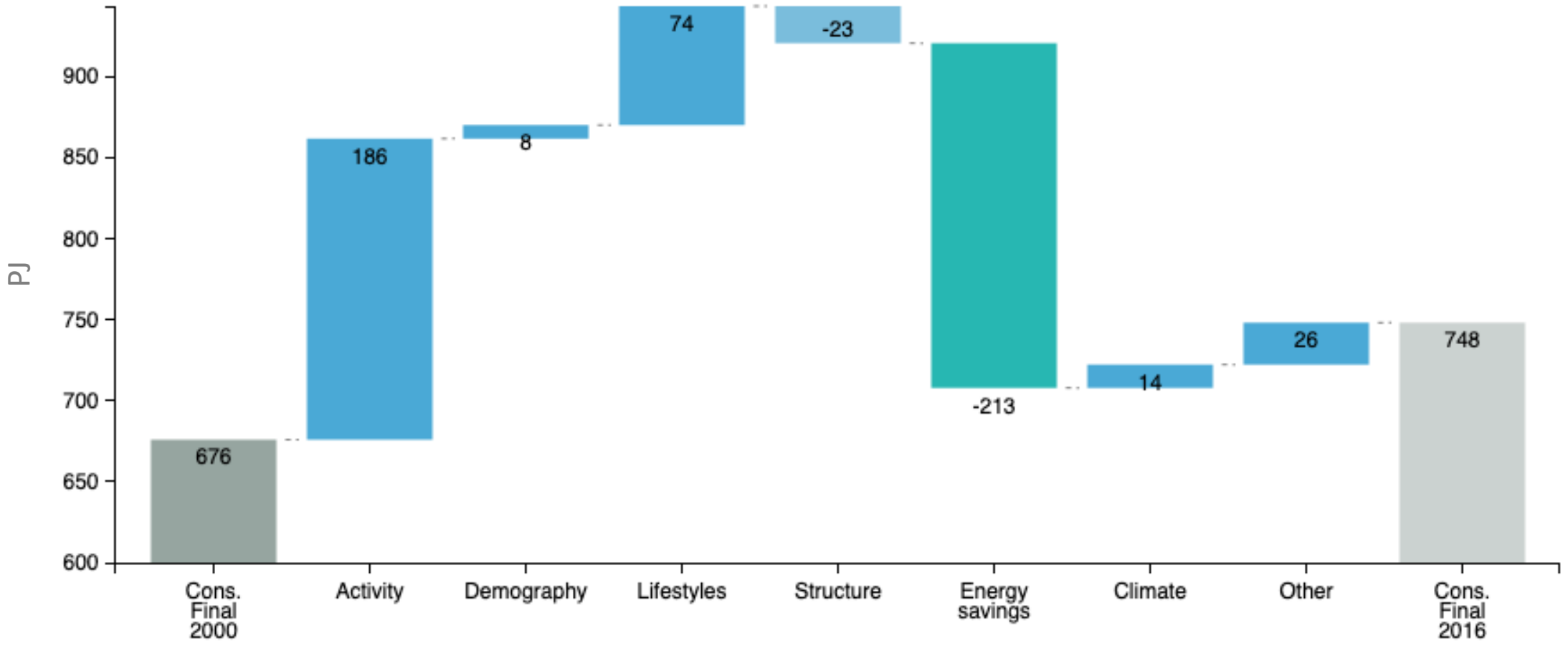
Source: ODYSSEE

Structural changes in energy consumption Poland



Source: ODYSSEE

Structural changes in energy consumption Hungary



Source: Odyssee

Energy efficiency policies in NECPs
Necessary scale up?

„Based on Operational programmes 2014-2020, which will continue until 2023“

“description of the policy measures is of **very limited detail** and their expected impacts are not yet reported”

“new measures mostly **build on the existing measures** (e.g. continuation of operational programmes in the next period, voluntary agreements in industry)”

“**lack of quantification** of the policies and measures there is uncertainty on how they are to be continued or expanded after 2020 and whether the proposed policies would suffice to achieve the stated objectives”

“planned policies and measures is **too general** and does not specify the expected outcomes”.

“building refurbishment plays an important role, elements related to the long-term renovation strategy remain vague”

“Additional measures are **not sufficient** to reduce final energy consumption, which is expected to grow by 7 % in 2030 compared to 2015.”

Challenges to good energy efficiency policies

Monitoring and evaluation of outcomes

Standardized monitoring above the core indicators

Highly dependent of the type of programme and individual initiatives

Ex post evaluation of the programmes

Challenges to good energy efficiency policies

(New) Green Savings Programme

1.8 billion EUR available since 2009 (from EU ETS emission allowances)

Single family houses (and multiapartment buildings in Prague)

Supports improvements in thermal properties of buildings, new passive houses, renewables, and other energy efficiency measures

Subsidy of 30 – 50 %

Over 85 000 applications

2.7 PJ estimated yearly savings since 2014

Challenges to good energy efficiency policies

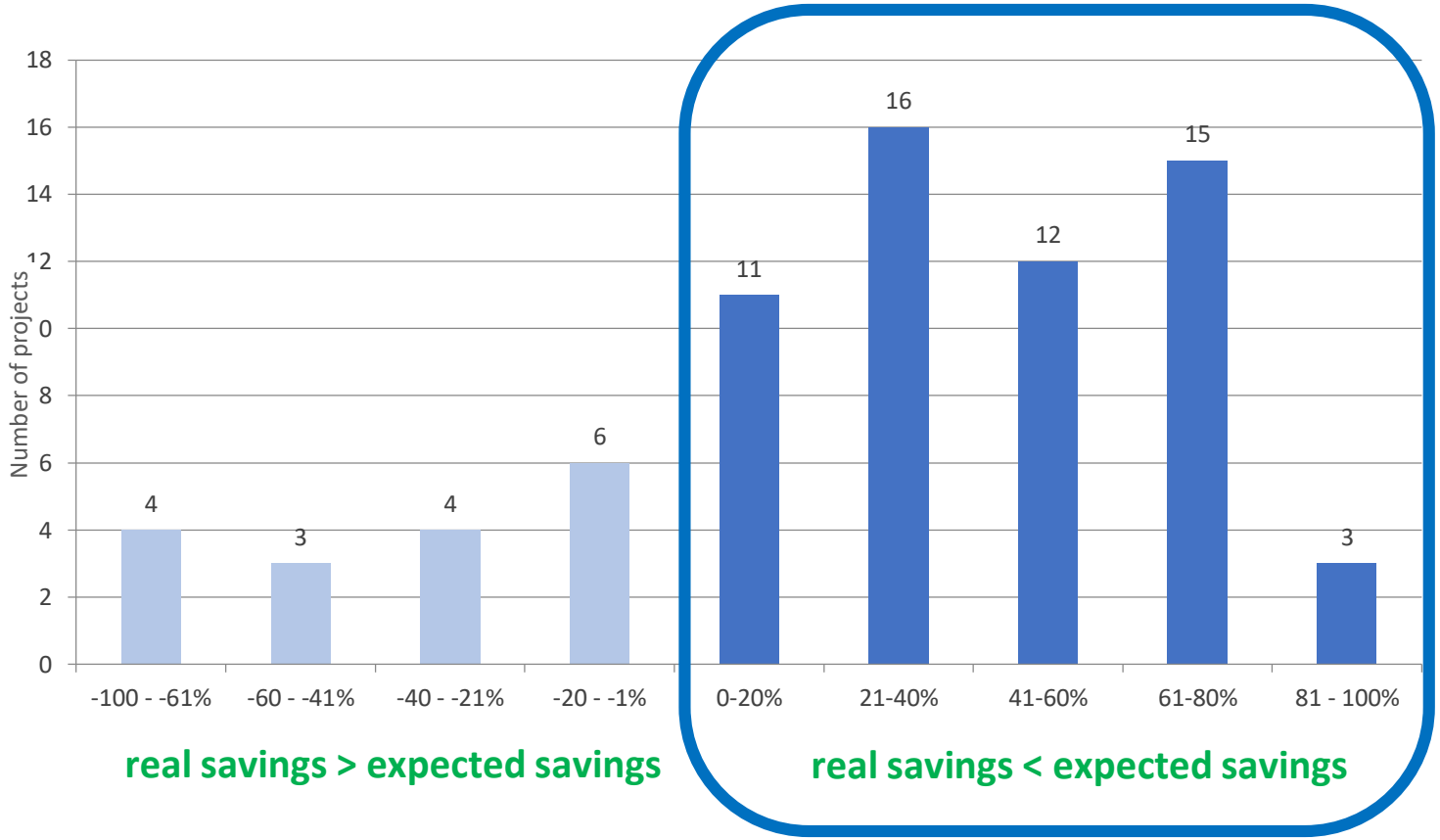
Ex post evaluation of NGS

206 measures inspected in 124 objects in all 14 regions

Comparing the ex ante estimates and ex post savings

Savings on average 25 % lower than expected

Ex ante vs. ex post evaluation



Valentová M., Karásek J., Knápek J.. Ex post evaluation of energy efficiency programs: Case study of Czech Green Investment Scheme. WIREs Energy Environ. 2019, 8:2.

Challenges to good energy efficiency policies

Administrative intensity

Negative impact of transaction costs on overall efficiency of the policy

Transaction costs not counted in costs evaluations

Challenges to good energy efficiency policies

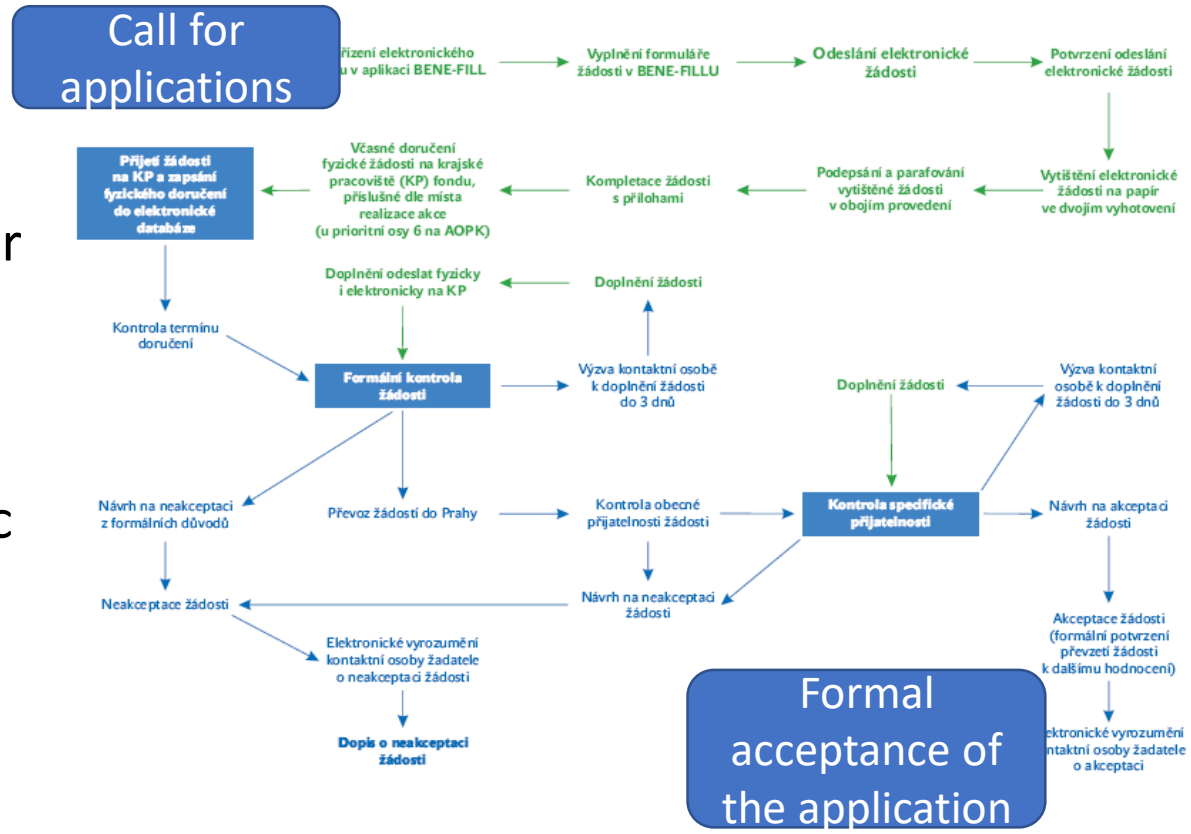
Administrative intensity

Transaction costs estimated to **9 – 25 %** of project costs, with **30 % and more** for smaller projects

Economies of scale

Private companies more effective than public sector

Despite learning, transaction costs do **not decrease** over time due to other exogenous and systemic factors



Operational programme Environment (2007 – 2013)

Valentová, M., Lízal, L., Knápek, J. Designing energy efficiency subsidy programmes: the factors of transaction costs. Energy Policy. 2018, Volume 120, pp. 382-391

Challenges to good energy efficiency policies

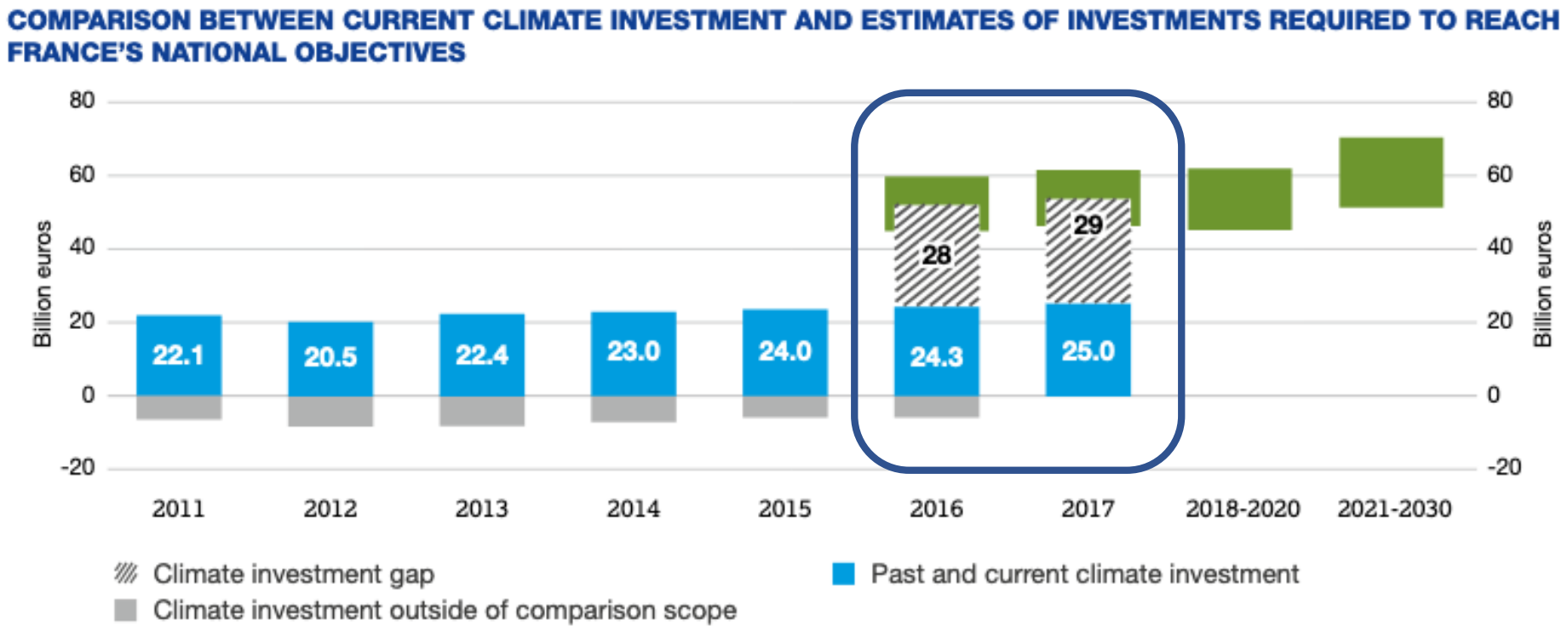
Investment **landscape** in draft NECPs

Investment **needs** in draft NECPs

Available in NECP	To be updated in Final NECP	No information

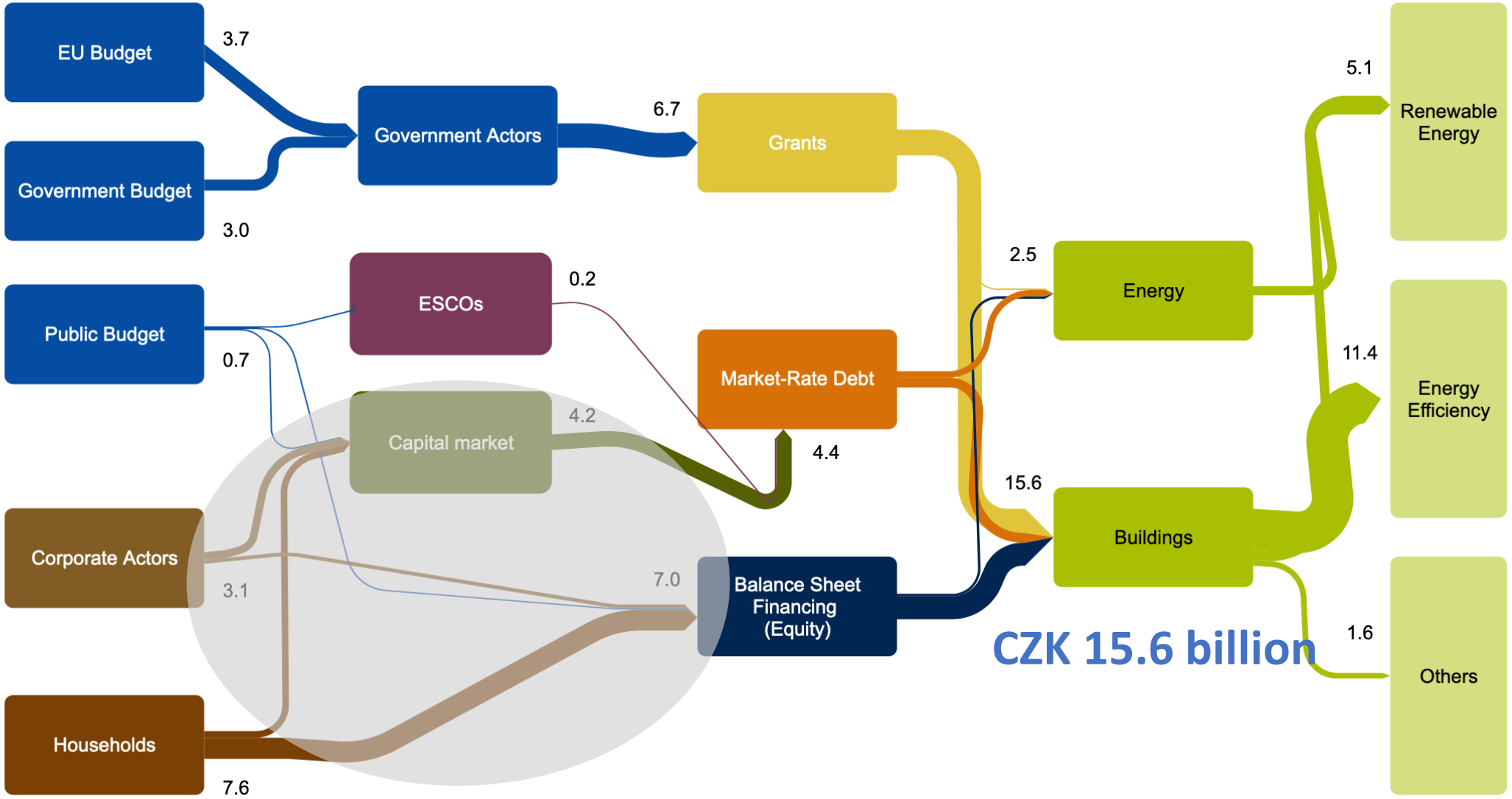
Challenges to good energy efficiency policies

Scale up of investment



H. Hainaut, I. Cochran, L. Gouiffes, J. Deschamps, A. Robinet . Landscape of climate finance in France, low-carbon investment 2011- 2017. September 2018, I4CE – Institute for Climate Economics

The 2017 Climate and Energy Investment Map for Czechia (CZK billion)



Total investment needed in EE: CZK **400 – 600 billion 2021 – 2030**

Investment needs in RES not available

Valentová, M., Knápek, J: Climate and energy investment map – Czechia. Status report 2017. Forthcoming. https://www.ikem.de/en/portfolio/cic2030/

Concluding remarks

Scale up of investment

Gap between the investment needs and current scale of investment

Tracking private finance: climate tagging and standards

“knowing the grounds before building a skyscraper”

Systemic monitoring and evaluation

Systemic monitoring and evaluation of benefits and costs

Transaction costs (bundling of smaller projects)

Room for new sets of financial (and other) instruments

Thank you.

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