

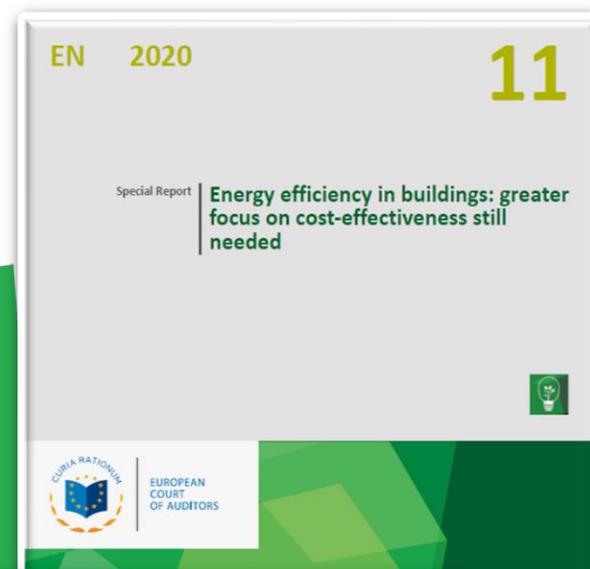
# 17th webinar of the energy evaluation academy

28 October 2020

## European Court of Auditors reports on Energy Efficiency



Peter Welch – Director of Chamber I of the ECA Sustainable use of natural resources





**What is our role?**

What value do we add?



**What questions do we ask?**

What constraints do we face in assessing performance?



**How do we carry out our audits?**

Audit methodology & techniques & tools



**What do we find?**

Key audit findings



**What do we recommend?**

Key recommendations and putting them into practice



# ECA audits - Energy



Audits : financial; legality and regularity: performance audits

Only performance refers to **external evaluation**

We apply three E's; Economy (absence of waste), Efficiency, Effectiveness.  
**Recommendations are aimed at the Commission.**

2017 a **Landscape Review** on EU action on Energy and Climate Change

This identified some areas for further work including **inventories of greenhouse gas emissions and energy efficiency**

We have also published reports on support for carbon capture and on free allowances under the ETS

...and more is to come in 2020: e.g. **Report on Energy Efficiency in the Industry**





# ECA audits – key issues



Where do we add most value?: assessment of efficiency of spending? policy coherence? Demystification?

What audit techniques and tools do we use - which of them work best?

Cost - benefit analysis → benchmarking

→ surveys, expert panels.

**We use evaluation reports and studies (with professional skepticism...)**

...we face constraints in our assessments: our auditees often do not have reliable data to measure performance...

What about counterfactual analysis? - are we able to know what would have happened to beneficiaries in the absence of EU intervention? EU added value? Deadweight?



# EU action on Eco-design and Energy Labelling

## SR 1/2020 - Why did we do this audit?

**Commission claimed it made a crucial contribution to meeting EU energy efficiency targets**

**Eco-design and Energy labels are complementary**

### **Eco-design**

integration of environmental aspects into product design, by setting energy efficiency and other requirements (e.g. limit water consumption, improve reparability or recyclability).

### **Energy labels**

estimate the annual energy consumed by a product and rank similar products according to their energy efficiency class, allowing consumers to make informed decisions.



# Using evaluations



- 'EU Ecodesign and Energy Labelling policy successful' - World Energy Council 2008: Energy Efficiency Policies around the World: Review and Evaluation
- Scope for more ambition: 'Most products already met the 2012 requirements in 2010' - Evaluation Report by the Commission based on some external evaluations and studies, including
- Ecofys, Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive: Background report I: Literature review, December 2013 stating that *'Some of the pictograms used to represent other parameters in the label are also difficult to understand, for example the 'switch logo' on the television label and the drying efficiency on the dishwasher label'*
- London Economics & Ipsos Mori, A study on the impact of the energy label – and of potential changes to it – on consumer understanding and on purchase decisions, 2014 *'Consumers are familiar with energy labels, with 85 % of Europeans recognising and using the energy label when making a purchase'*
- Preparatory/review study for household refrigeration, VHK, 2016; additional research, VHK, 2017: 'Better design of households refrigeration could help prevent food waste'



# What questions did we ask?

**Has EU action on Eco-design and Energy Labelling contributed effectively to EU energy efficiency and environmental objectives?**

Does the **Commission** manage the Ecodesign and Energy Labelling measures effectively?

Have EU actions effectively contributed to improving **market surveillance** activities?



# What did we look at? What audit techniques & tools did we use?

## Member States visits: Market Surveillance Authorities

Sweden, France, Poland, Luxembourg

## Commission visits

DG ENER, DG GROW, EASME

## Desk review

9 EU-funded projects to improve market surveillance

## Consultation with stakeholders

European Consumers Organisation  
European Environmental Bureau  
Home Appliance Europe etc.

Reference to a survey: *'Less than 1/3 of respondents could understand all the information on the label'*

*(Elke Dunnhoff: results of two focus groups and a representative customer survey)*



## Three product groups as case studies

Central heating, Household refrigeration, Electronic displays





# What did we find?

## Important policy contribution

- Prioritization of product groups with high energy saving potential
- Improved energy labels and increased focus on resource efficiency
- Tools/projects to support Markets Surveillance authorities

## Areas of improvement

- Significant delays in the regulatory process: some were avoidable
- “Package approach” not suited to this policy
- Eco-design impact accounting overestimates the impact of policy



# What did we recommend?

## Improve the regulatory process

- use standard approach for reviews studies
- develop framework to cover recycle/reuse issues
- adopt implementing measures when ready
- update requirements in fast-moving markets [e.g. ICT]

## Improve Impact Accounting

- improve assumptions
- revise methodology to better account for real-life usage
- report contribution to 2020 objectives

## Facilitate cooperation on surveillance

- disseminate best practices
- improve relevant tools (databases)
- provide training to Market Surveillance Authorities



# Energy efficiency in buildings – SR 11/2020 – our approach

Improving **energy efficiency of buildings** is important to multiple targets.

Our report aimed to assess how cost-effectively EU co-funded energy efficiency investments in buildings are helping the EU to achieve its targets.

Focus on COST BENEFIT ANALYSIS

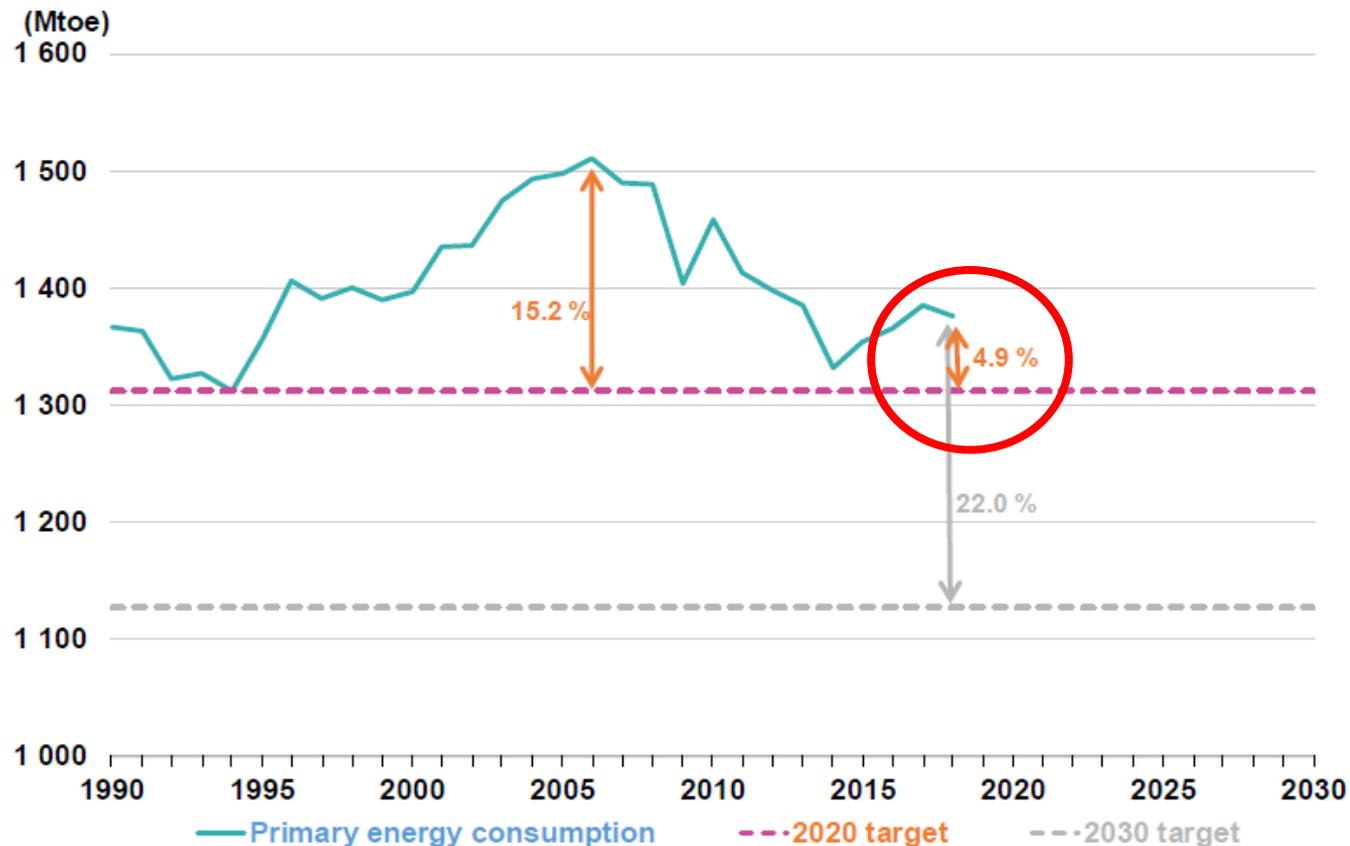




# Energy efficiency – distance to targets

EU target to cut energy consumption by 20% by 2020 → new target for 2030 is 32,5%

Distance to 2020 and 2030 targets for primary energy consumption, EU-27

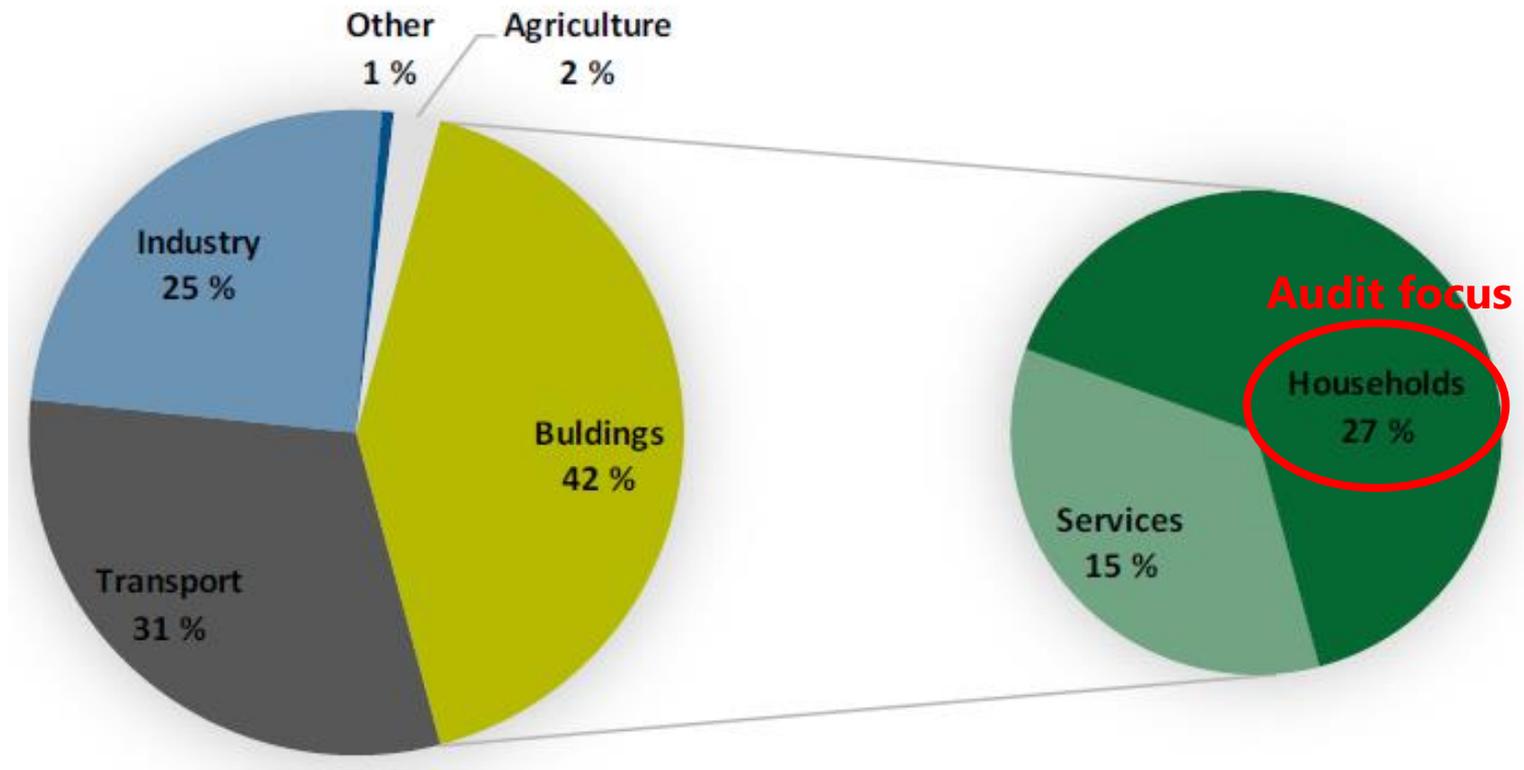




# We focused on energy efficiency investments in residential buildings co-financed by the ERDF and CF and the efficiency of these investments

Buildings use **42% of energy** (mainly in households for heating and hot water)

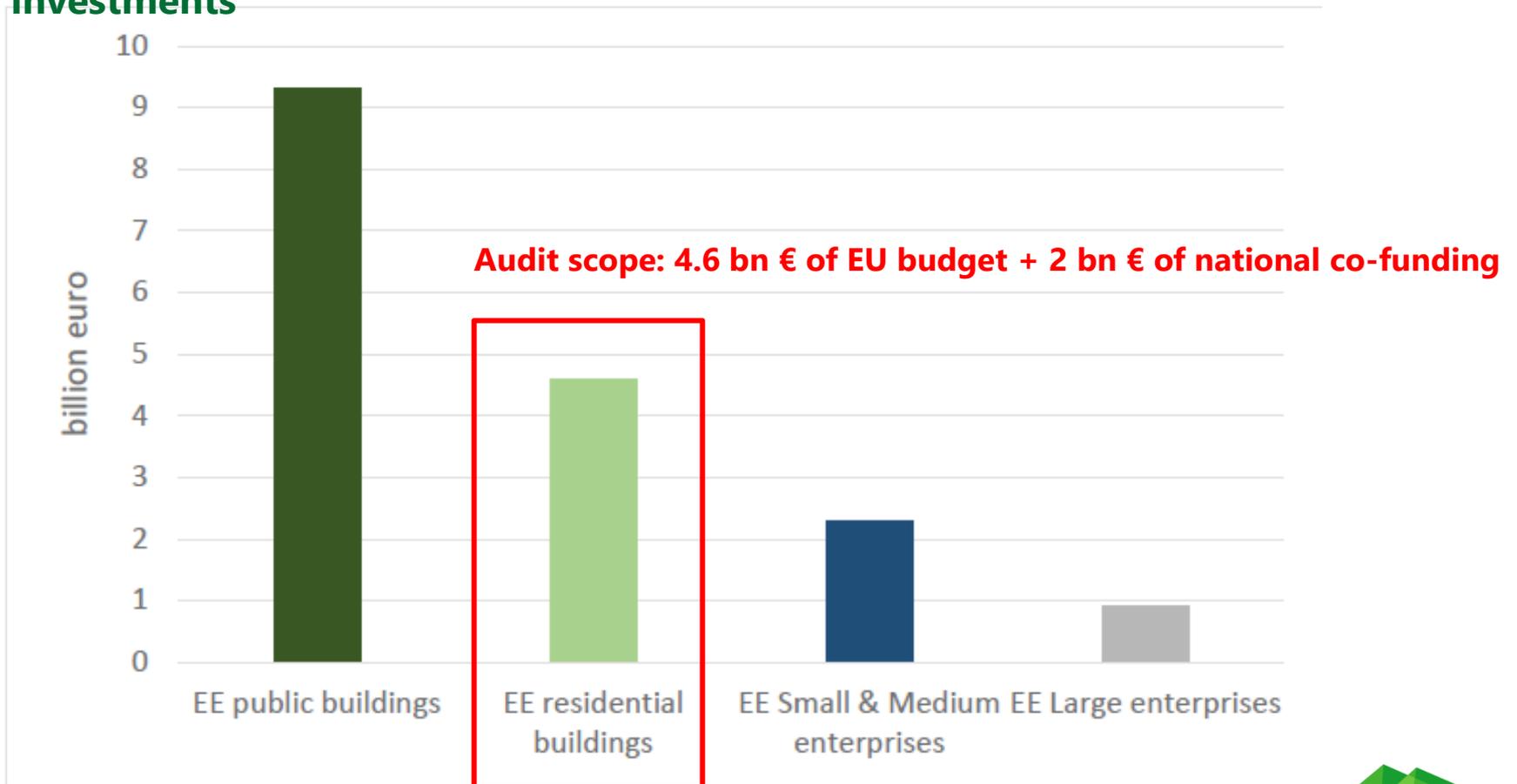
## 2017 Energy consumption by sector (% of total)





# Audit scope

## 2014-2020 EU Cohesion policy budget breakdown for energy efficiency investments





# Using evaluations

- In our special report 21/2012 on [Cost-effectiveness of Cohesion Policy Investments in Energy Efficiency](#), we concluded **that cost-effectiveness did not guide EU spending on energy efficiency in buildings**. Better management, especially in the area of project selection, could lead to higher energy savings per euro invested.
- *'Market barriers ... include lack of awareness and expertise on energy efficiency financing and benefits, high initial costs, regulatory barriers in multi-ownership buildings (often requiring unanimity for housing associations), and the split incentive or owner/tenant dilemma': **JRC report (2014), "Overcoming the split incentive barrier in the building sector"***
- *'Other barriers...relate to public procurement rules, as there is legal uncertainty on the essential elements of such contracts and difficulties in distinguishing between works, supply and services': **Italian Energy National Agency: ENEA (2017): "The Energy Performance Contracts"***



### Weaknesses

- Often no clear basis for targeting the funds:
  - no classification of buildings by energy consumption
  - sometimes EU funds replace national ones (e.g. Ireland)
- Barriers to investments known, but often not tackled
- Too many grants with 100% public aid rate

### Strengths

- Improving energy efficiency acknowledged as a priority
- Extensive Commission guidance to Member States on financing energy efficiency investments
- Good practices in removing barriers:
  - in Lithuania simple majority of owners enough to renovate buildings
- Public aid rate modulation in Lithuania to leverage private funds

## Weaknesses

- Most selection procedures first-in first-served, with no comparative assessment of project merits (including co-benefits energy efficiency investments should generate: e.g. reduction of energy poverty, energy bills, air pollution...)
- Little focus on cost-effectiveness
  - no ceilings on cost per energy saved
  - no minimum/maximum payback time

## Strengths

- Good Commission guidance
- Energy audits / certificates useful as a basis for the investments
- Most Member States set minimum energy rating for the building after works or energy savings to achieve

## Weaknesses

- Indicators do not measure energy saved in residential buildings
- Indicators do not measure efficiency of public spending nor contribution to EU targets
- Performance reserve based on spending, not on energy saved

## Strengths

- Indicator for public buildings measures energy savings (KWh)



# We recommended improving:

- planning and targeting of the investments
  - aligning programmes with National Energy and Climate Plans and national Long Term Renovation Strategies
  
- project selection
  - Setting minimum and/or maximum thresholds
  - assessing the relative costs and benefits
  
- monitoring of results
  - use indicators for monitoring cost-effectiveness
  - especially in times of pressure on public budgets and increasing targets for energy efficiency, more focus on cost-effectiveness is essential

# Thank you for your attention!

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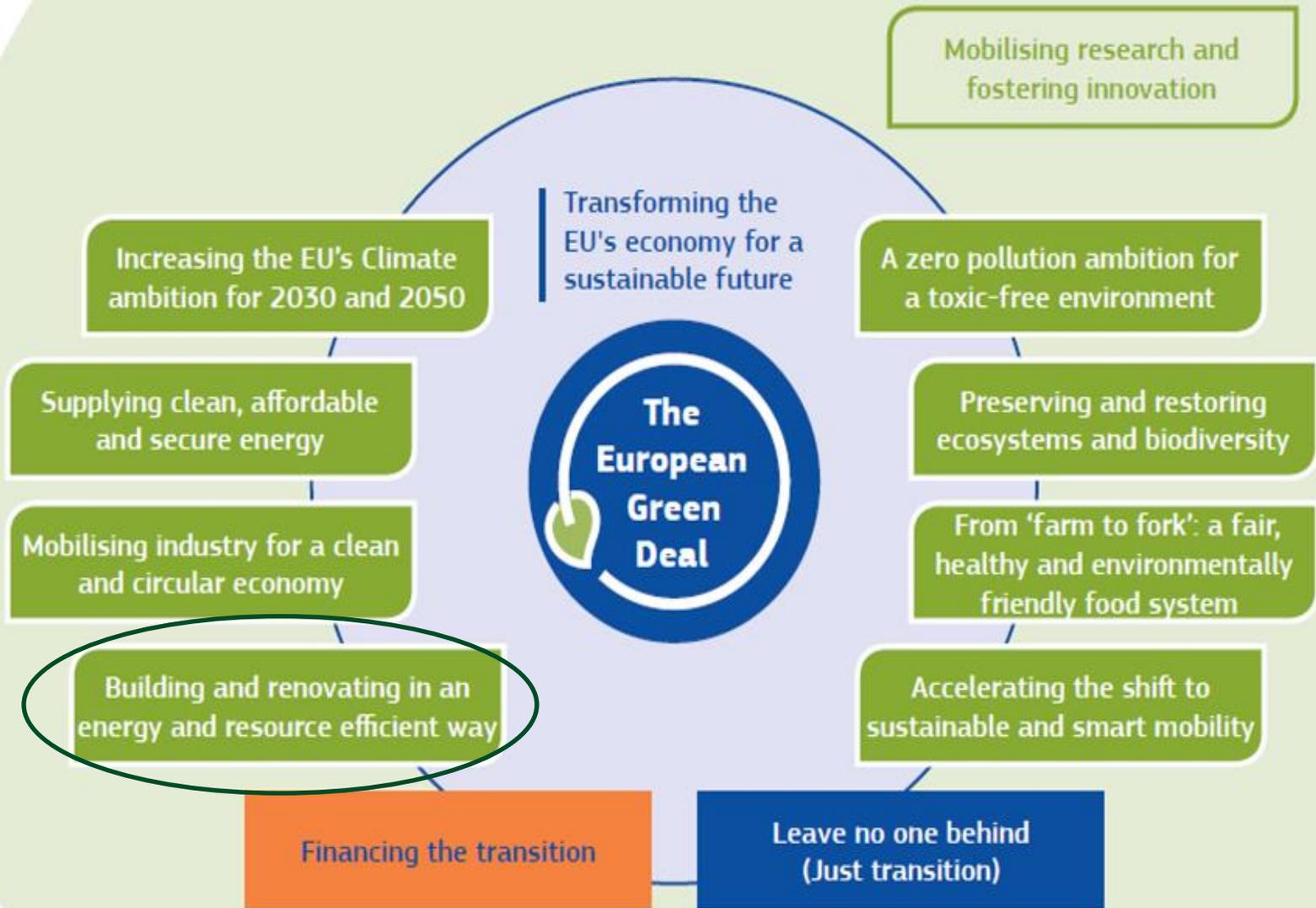
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# Beyond 2020 - European Green Deal ambition



The EU as a global leader

A European Climate pact



# Beyond 2020 - European Green Deal ambition

## Commission's New Renovation Wave Strategy published on 14 October 2020

- refers to the Climate Target Plan 2030 of cutting net greenhouse gas emissions by at least 55% by 2030 compared to 1990.
- Energy efficiency is recognised as an essential component for action, with the building sector as one of the areas where efforts must be ramped up.
- the New Renovation Wave Strategy announces that the EU should reduce:
  - buildings' greenhouse gas emissions by 60%
  - their final energy consumption by 14%
  - energy consumption for heating and cooling by 18%



# ECA audits in the field of Energy (2018 - 2020)

Demonstrating carbon capture and storage and innovative renewables at commercial scale in the EU - SR 24/2018

European Environmental Economic Accounts – SR 16/2019

EU greenhouse gas emissions - SR18/2019

2019 Briefing Paper on EU support for energy storage

2019 Briefing Paper: on the EU's response to the "diesel gate" scandal

Eco-design and Energy Labelling - SR 01/ 2020

Energy Efficiency in Buildings - SR 11/2020:

EU's Emissions Trading System – SR 18/2020

