



SUFFICIENCY and **CIRCULARITY**

*The two overlooked decarbonisation
strategies in the 'Fit For 55' Package*

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Sufficiency and circularity are two climate mitigation options not considered in EU instruments

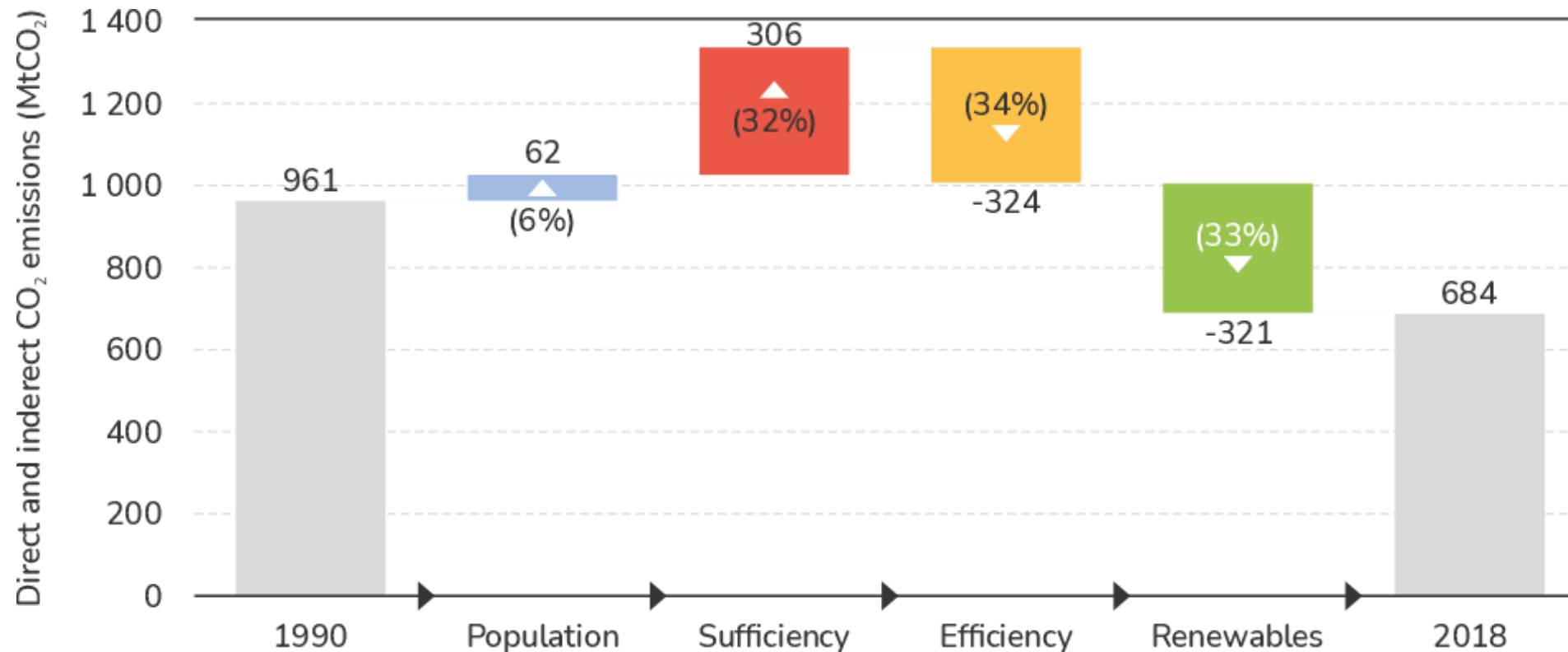
Sufficiency policies are a set of measures and daily practices that avoid the demand for energy, materials, land, water, and other natural resources over the lifecycle of buildings and goods while delivering wellbeing for all within planetary boundaries.

Circularity principles avoid the linear use of materials and goods by **applying some of the sufficiency principles at the product and construction materials levels.**



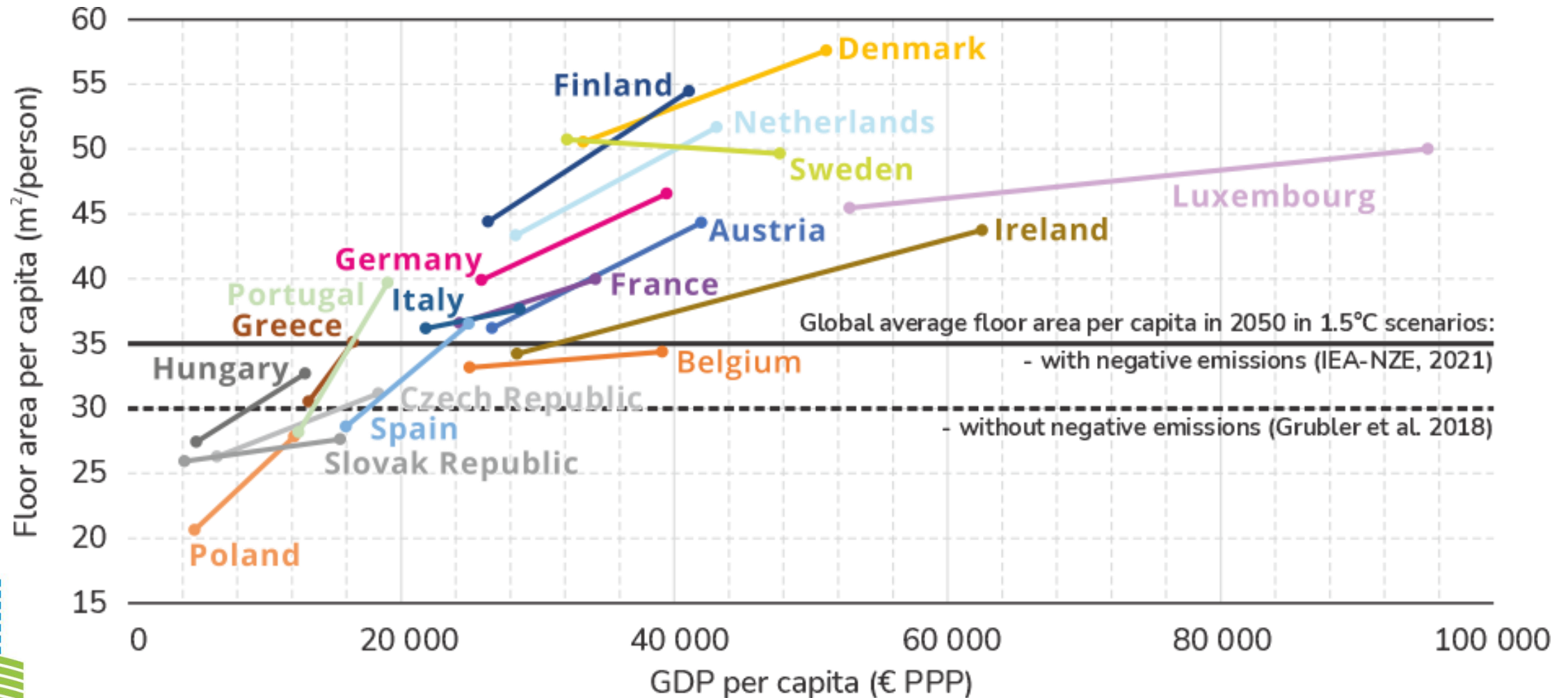
Emissions reduction from residential buildings would have been much higher if sufficiency policies were included

Decomposition of CO₂ emissions of residential buildings in the EU27+UK over the period 1990-2018



Efficiency improvement was offset by the lack of sufficiency policies

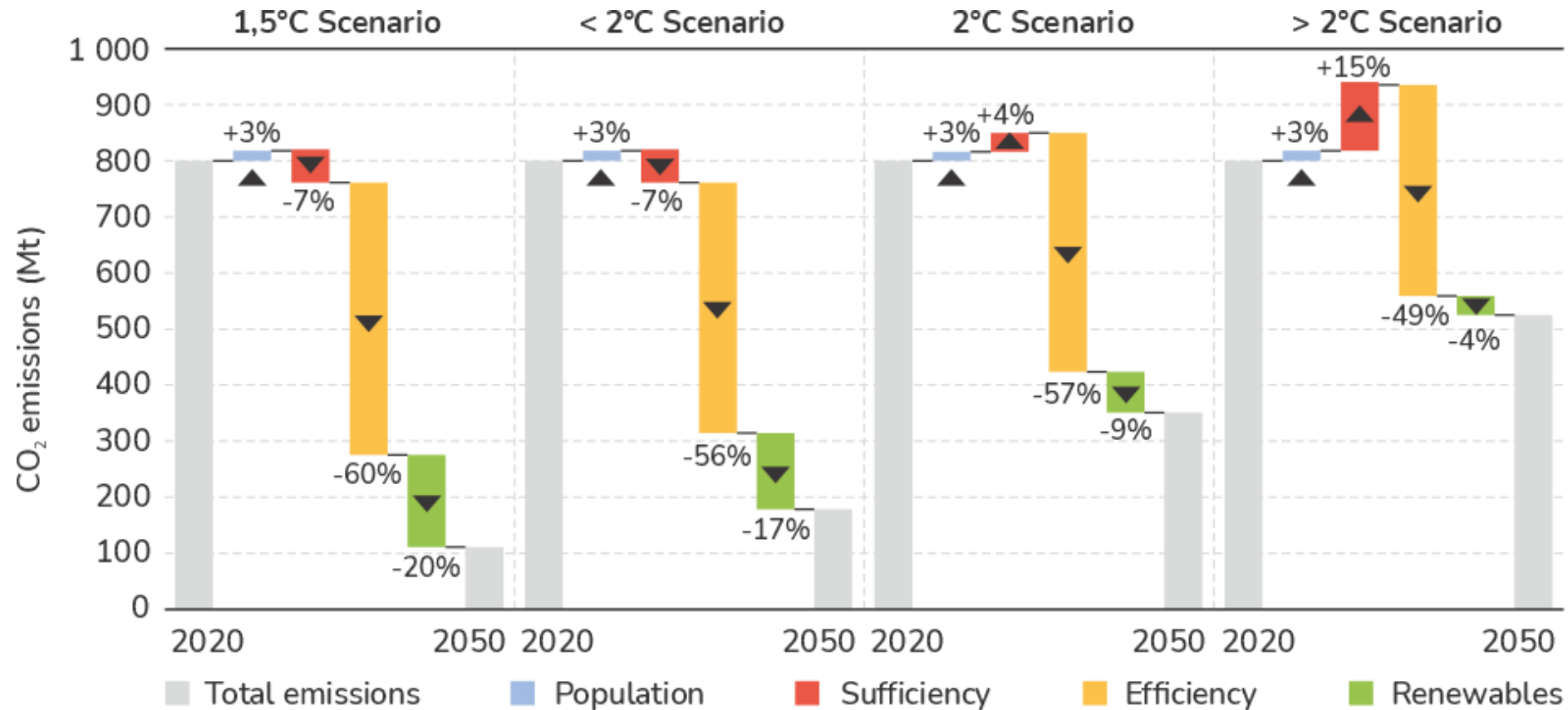
Scenarios aiming at 1.5°C temperature target put a cap on the floor area per capita



Floor area per capita in the wealthiest MSs is above the global average estimated in scenarios aiming at 1.5°C target

Without sufficiency requirements EU buildings will be locked in carbon by 2050

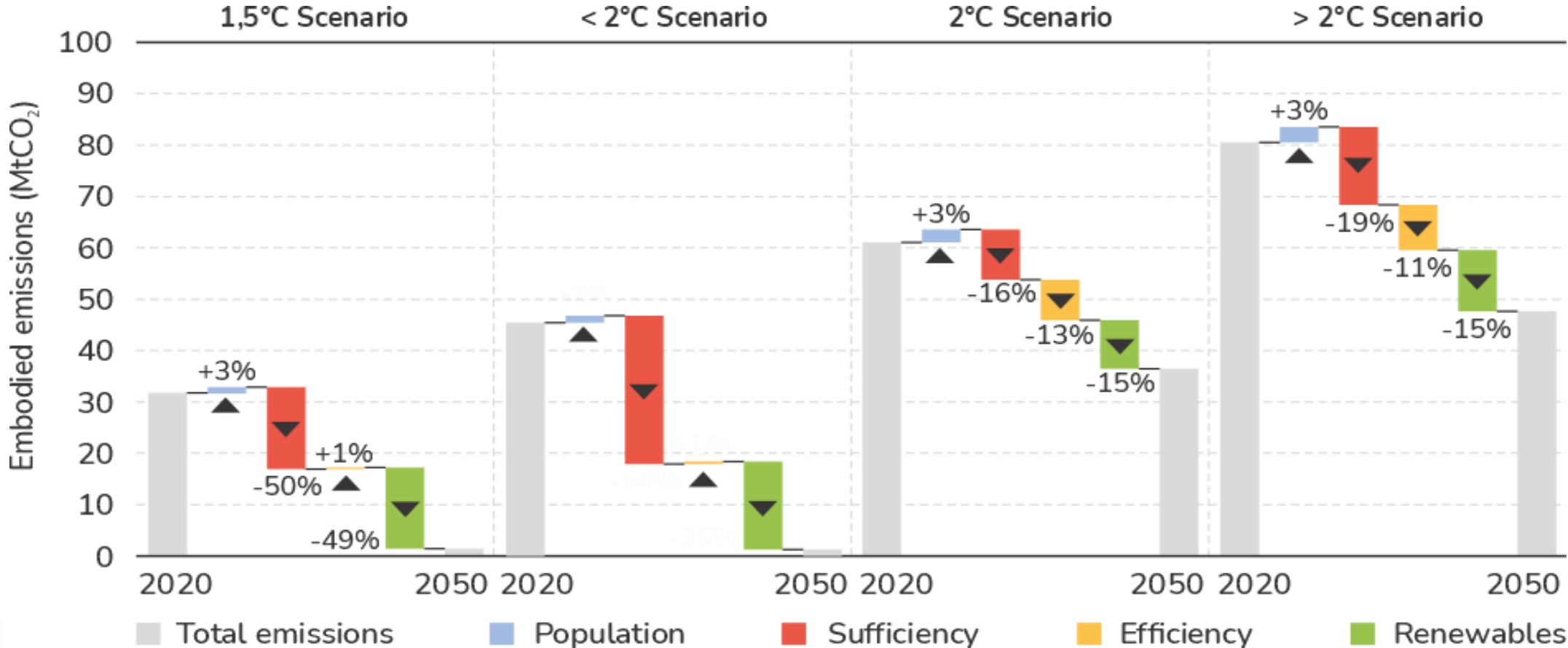
Decomposition of operational emissions of residential buildings in the EU27+UK over the period 2020-2050 in selected scenarios



Sufficiency policies make the 1.5°C target achievable

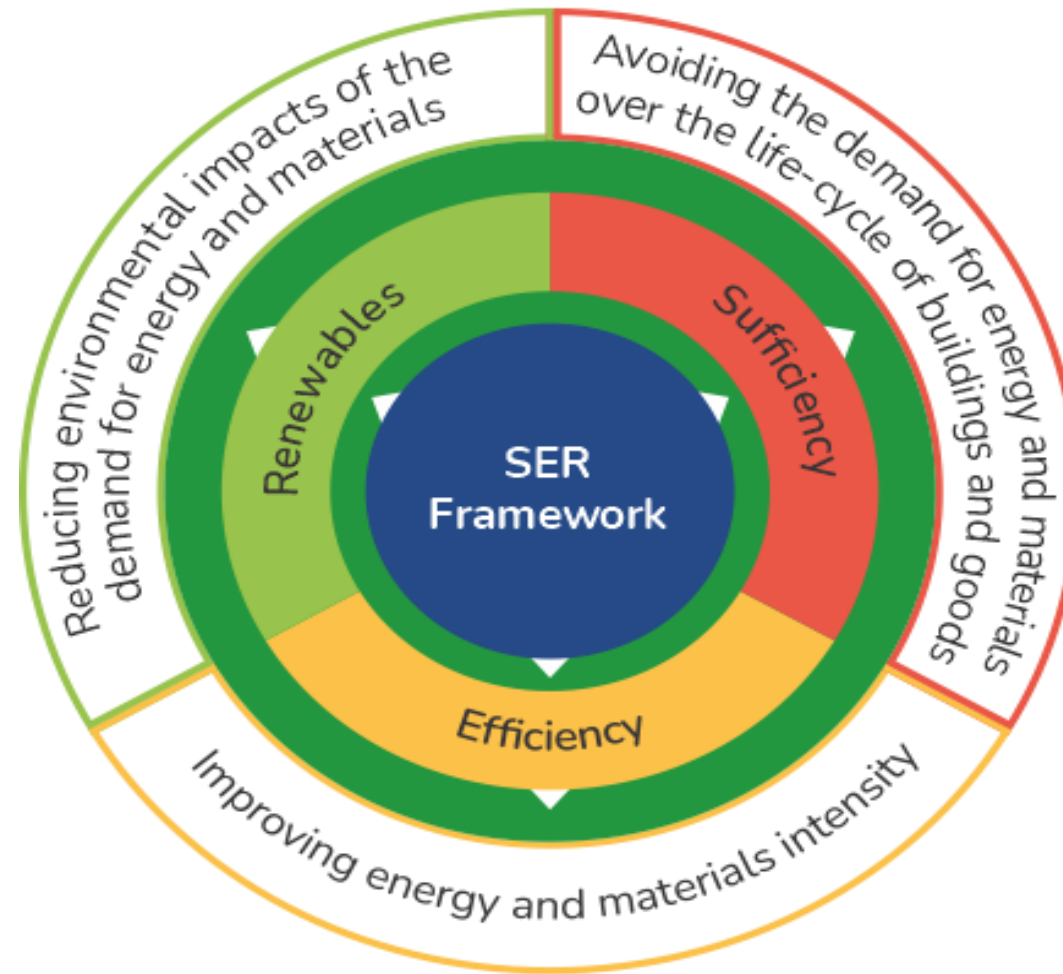
Embodied emissions: The elephant in the room

Decomposition of embodied emissions of new residential buildings in the EU27+UK over the period 2020-2050 in selected scenarios



Differences in embodied emissions are due to different assumptions related to new building

The SER (Sufficiency, Efficiency, Renewable) framework should be the basis of 'Fit for 55'



A full decarbonisation of EU buildings requires extending the existing efficiency and renewable framework to sufficiency

Sufficiency and circularity requirements should be included in several EU instruments

- Energy Performance of Building Directive
 - Carbon neutrality of all emissions in the operation and the construction phase.
 - A cap on the floor area per capita through adaptability, flexibility and measures to allow for shifting from ownership to usership
- Construction Product Regulation
 - Including requirements on embodied emissions
 - Including the no-data, no-market principle
- Ecodesign and labelling Directives
 - Ensuring embodied emissions are better considered in the Ecodesign directive
 - Including reparability requirements
 - Including the no-data, no-market principle
- EU taxation directive
 - Including requirements to adjust property taxes to the floor area per capita
- EU land take framework
 - Making land take goals binding



Sufficiency and circularity requirements should also be included in EC modelling and monitoring tools

- **EC modelling**
 - Including embodied emissions in the decarbonisation scenarios
 - Including a cap on the floor area in the decarbonisation scenarios
- **EU Building Observatory**
 - Including indicators to assess progress in the implementation of sufficiency and circularity

