

Beyond efficiency, sufficiency matters

ZOE Policy lab on climate change and the housing sector

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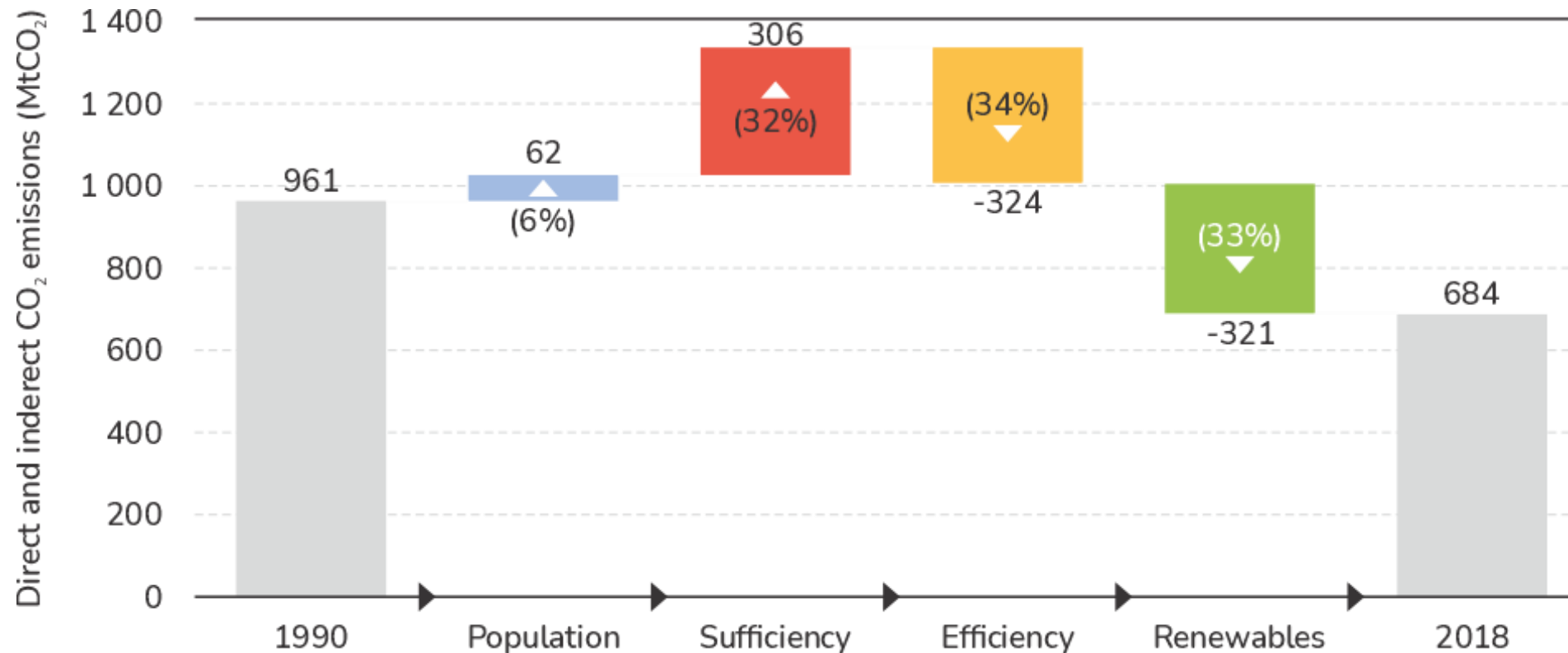
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Emissions reduction from residential buildings would have been much higher if sufficiency policies were included

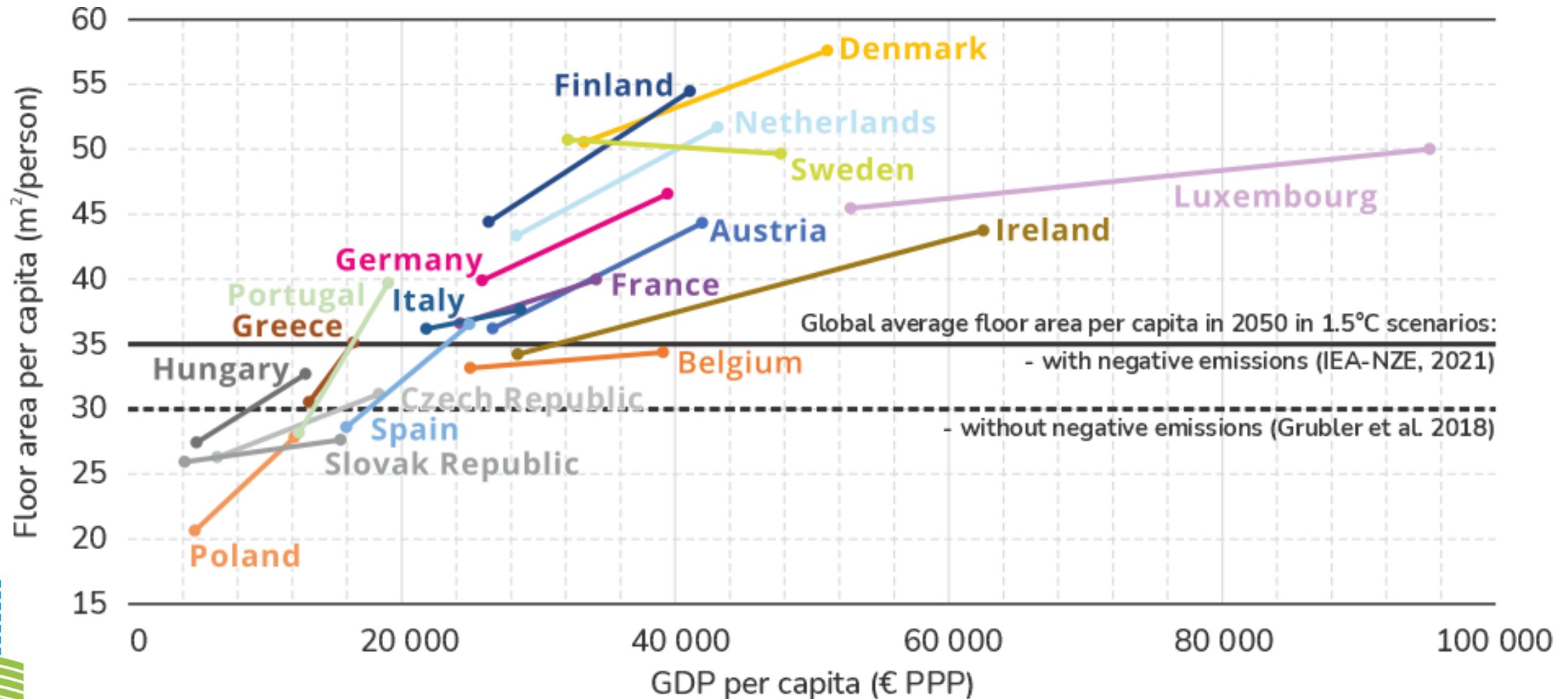
Decomposition of CO₂ emissions of residential buildings in the EU27+UK over the period 1990-2018



Efficiency improvement was offset by the lack of sufficiency policies

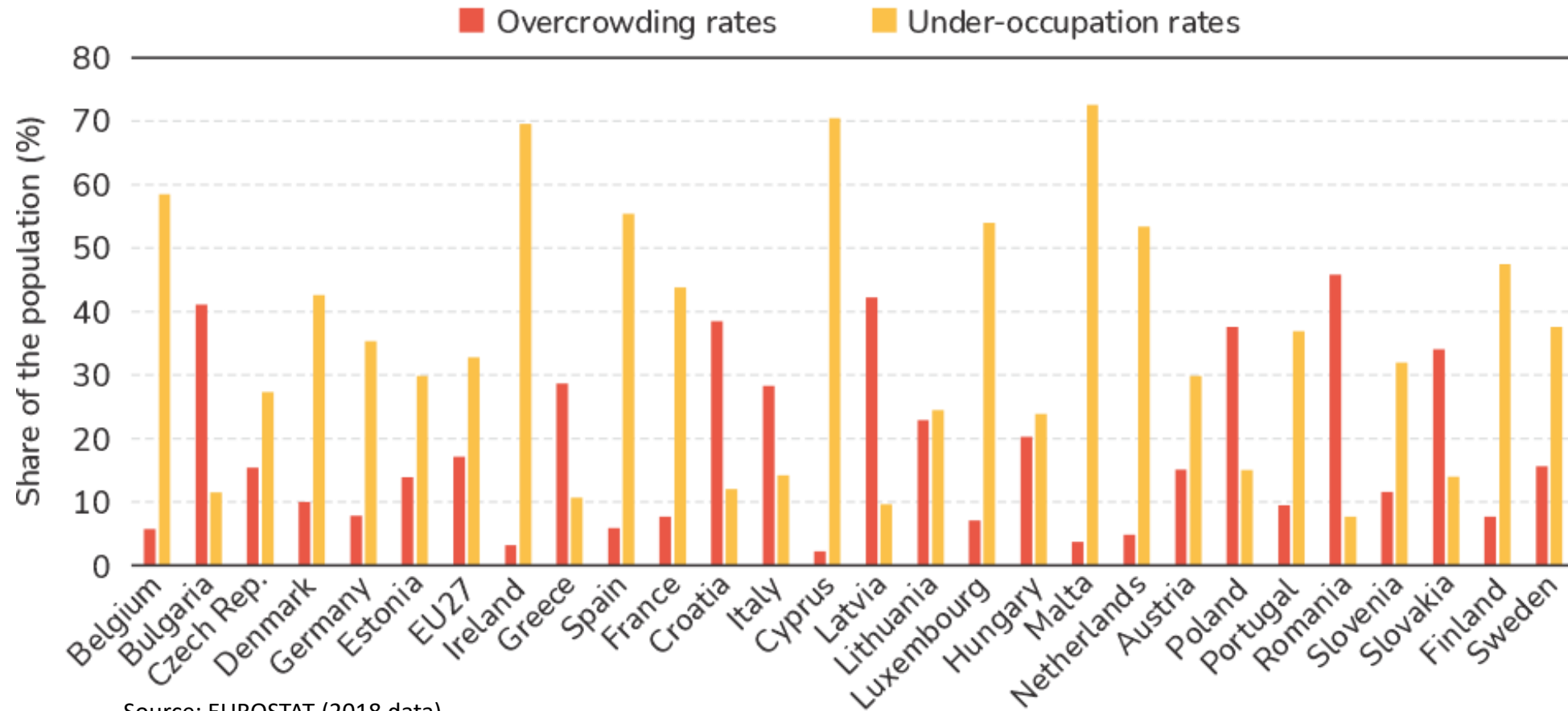


Scenarios aiming at 1.5°C temperature target put a cap on the floor area per capita



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

Both over-crowding and under-occupation of dwellings have negative societal implications



Source: EUROSTAT (2018 data)



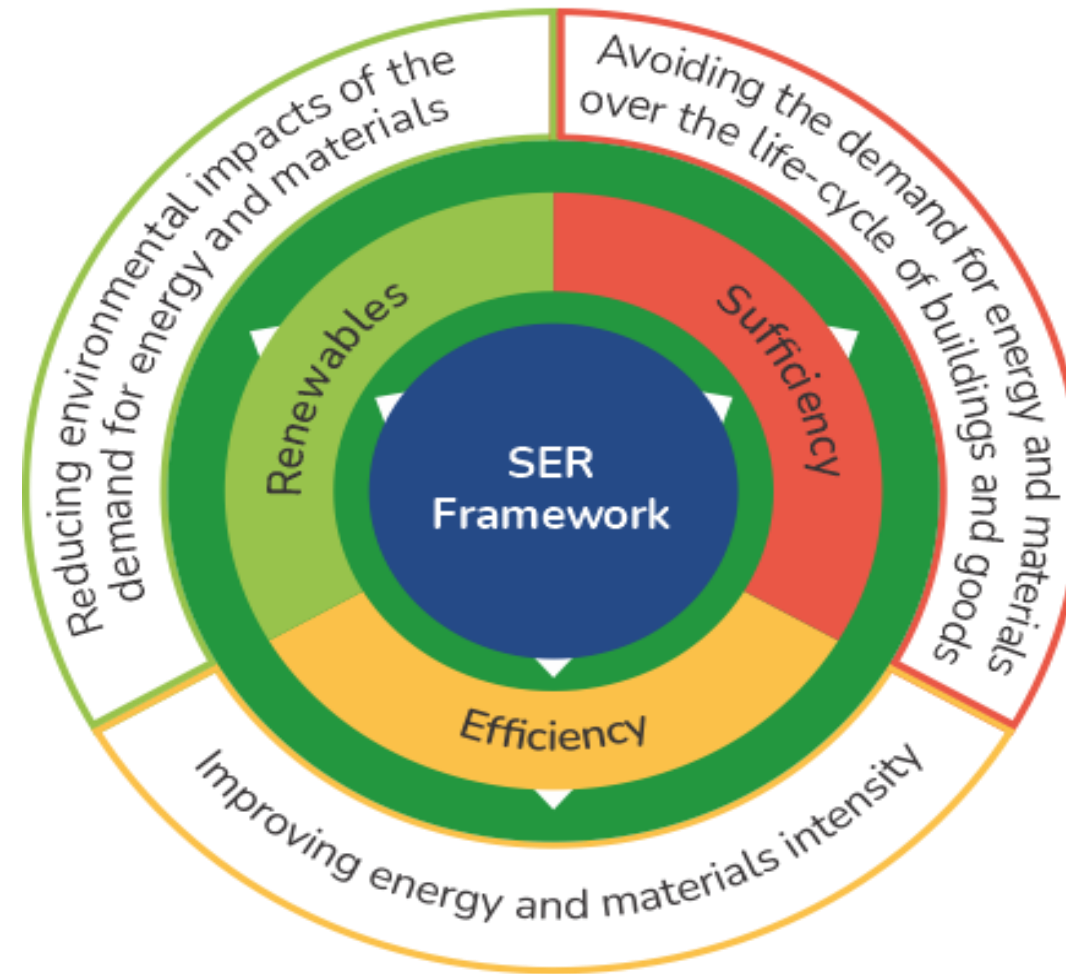
Sufficiency is about human needs (lower limit) and planetary boundaries (upper limit)

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.

Source: Y. Saheb: Beyond efficiency, sufficiency matters and should be first, Buildings and Cities Journal, 2021



The SER (Sufficiency, Efficiency, Renewable) framework should be the basis of 'Fit for 55' package, the EU green deal and European Bauhaus

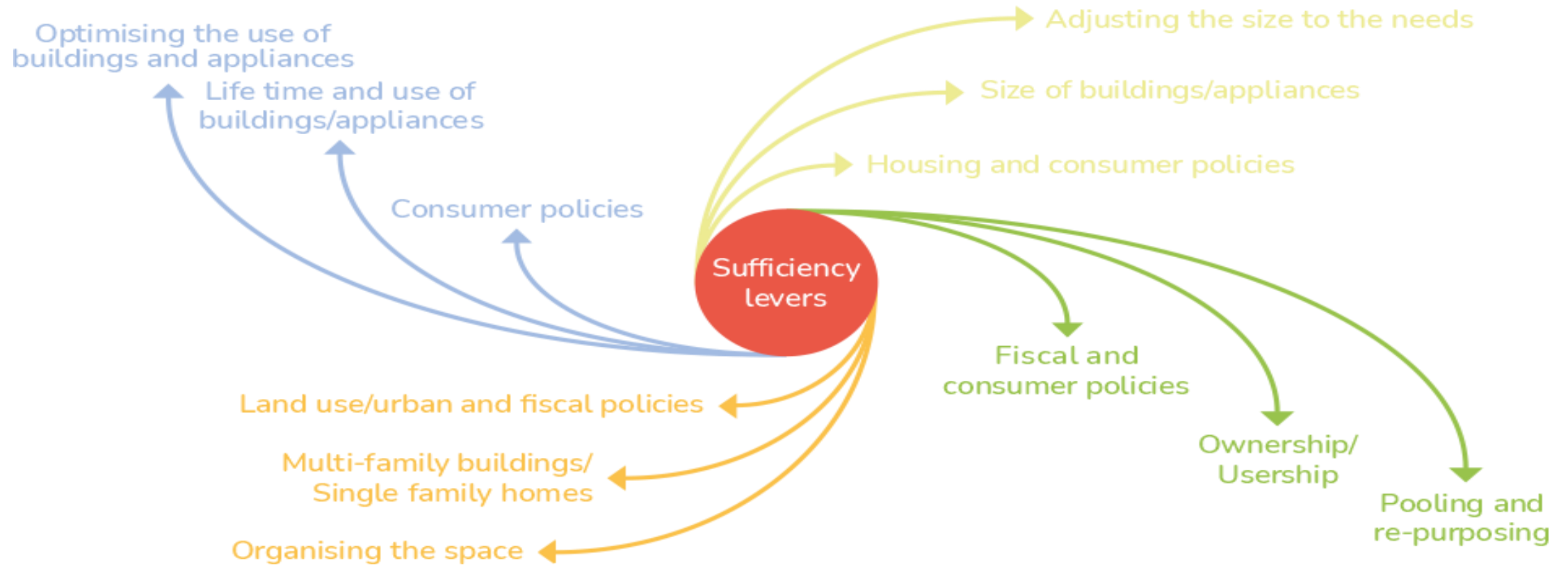


A full decarbonisation of EU buildings requires extending the existing efficiency and renewable framework to sufficiency

Source: Y. Saheb: Beyond efficiency, sufficiency matters and should be first, Buildings and Cities Journal, 2021



Sufficiency levers go beyond the sectoral and energy approach



Source: Y. Saheb: Beyond efficiency, sufficiency matters and should be first, Buildings and Cities Journal, 2021



Sufficiency 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 requirements should 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

