User-Centred Energy Systems Academy

The Users TCP Academy provides access to the knowledge developed through our research programme and the wider work of our partners. Visit **userstcp.org/the-academy/** for our extensive library, featuring more than 100 presentations.

- **Next Webinar:** 14 January 2026 @ 3pm CET
- Energy Behaviour Forum – the Energy Saving Trust will present this new initiative aimed at helping regions and municipalities apply behavioural insights to improve energy efficiency
- Stay tuned for registration link in the webinar chat

Energy Efficiency 2025

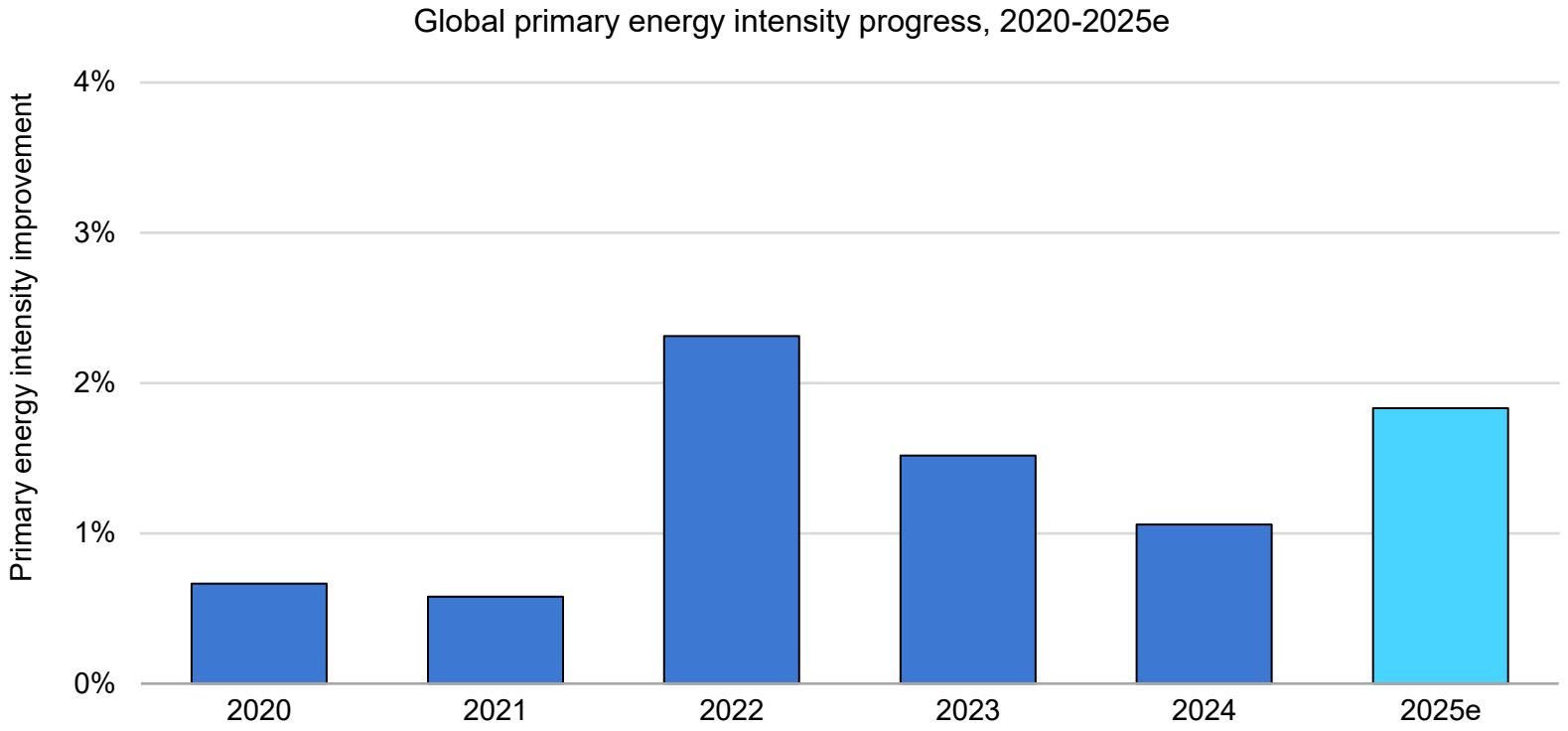
3 December

Lucas Boehlé (Lucas.Boehle@IEA.org)

International Energy Agency

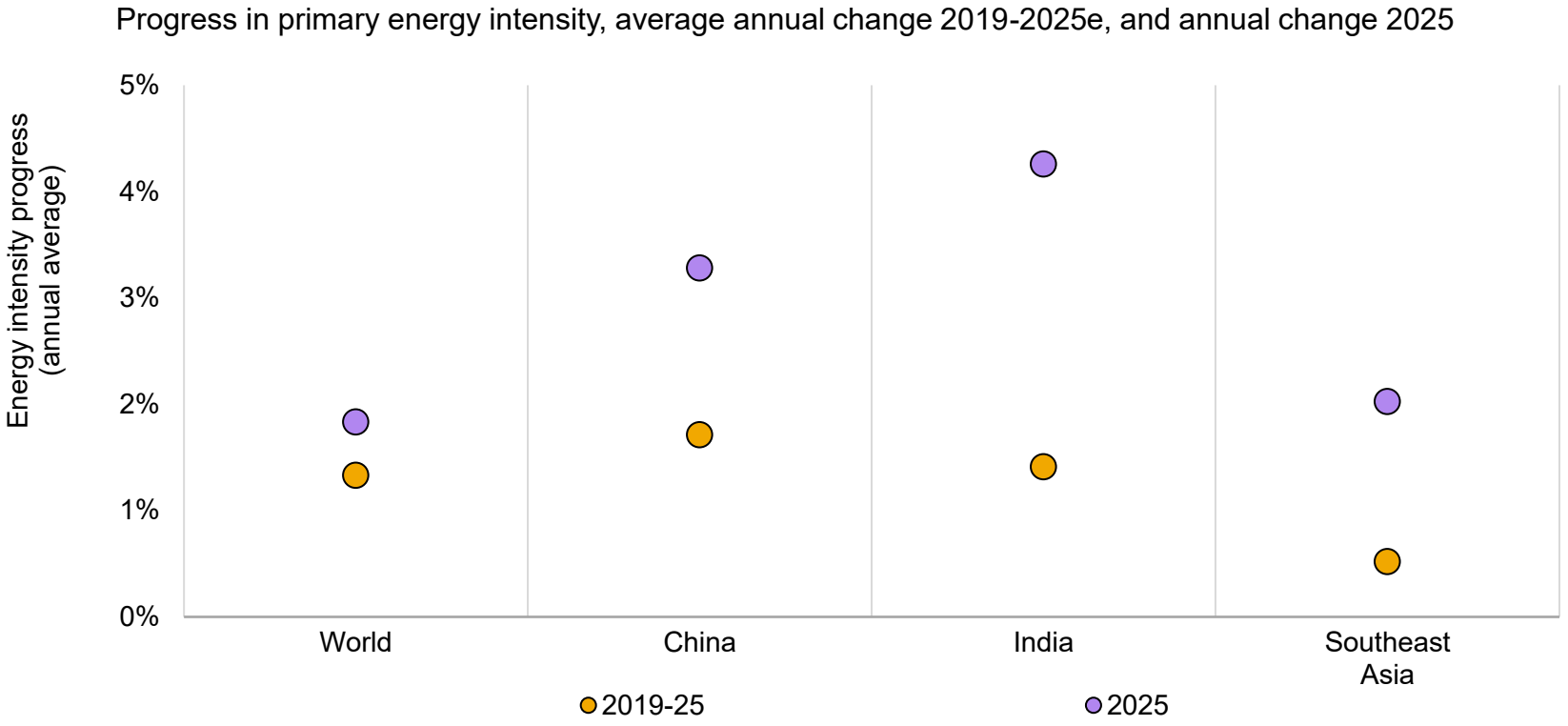
Global trends

Global energy efficiency progress sees improvement in 2025



Estimates for 2025 show an improvement rate of 1.8%, compared to 1% in 2024

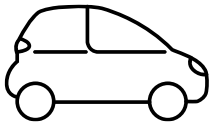
Global energy efficiency progress sees improvement in 2025



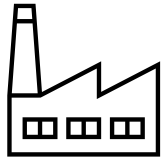
2025 data shows strong progress in several key regions, particularly in Asia

Policy is accelerating in many areas in 2025

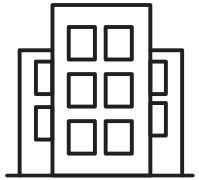
Over 250 new or updated energy efficiency-related policies introduced in 2025



1. New funding for electric vehicles in **Malaysia** and **Korea,** and new fuel efficiency standards in **Australia** and **the European Union**

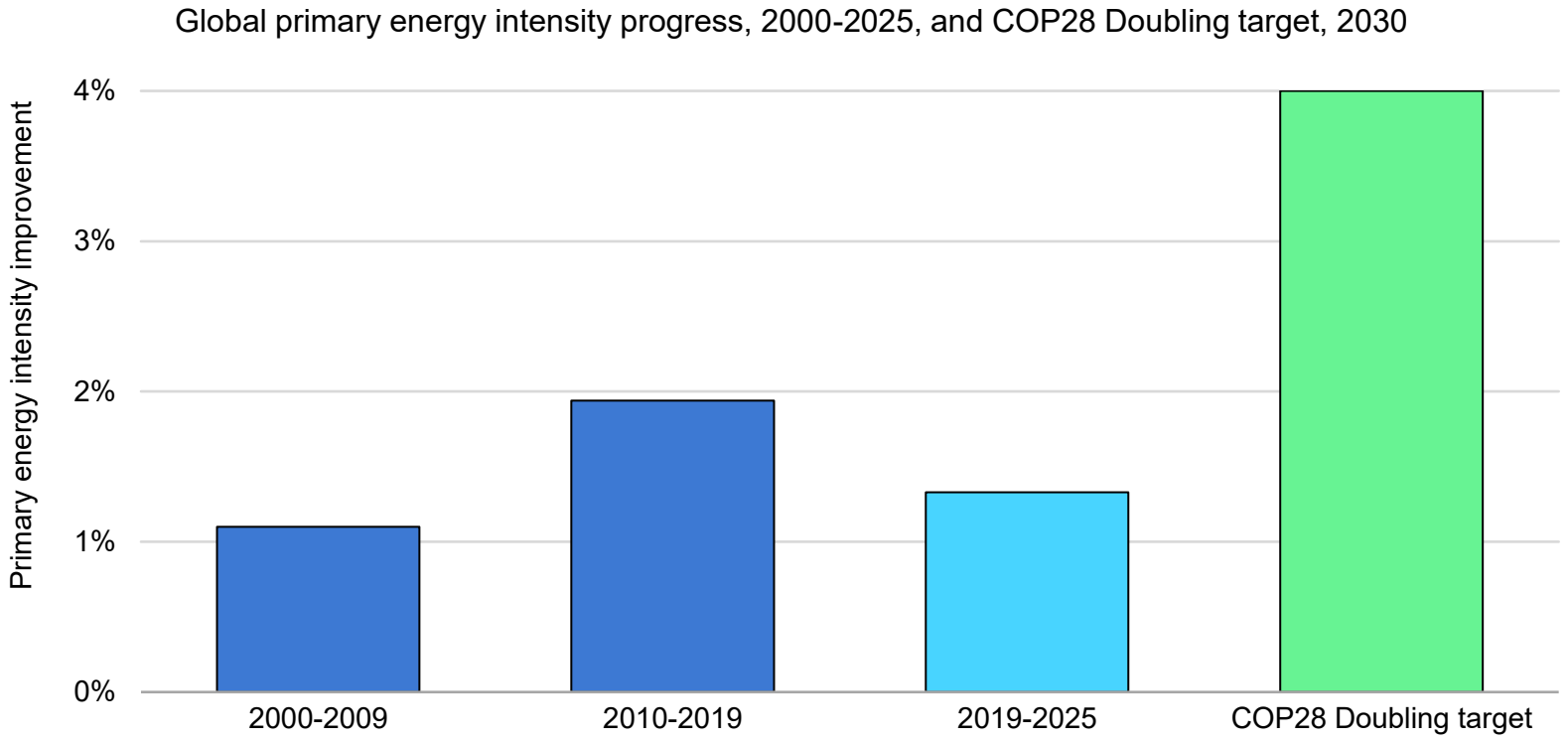


2. Energy performance regulations for industrial motors in **Mexico** and **Morocco**, and energy management policies in **Kenya**



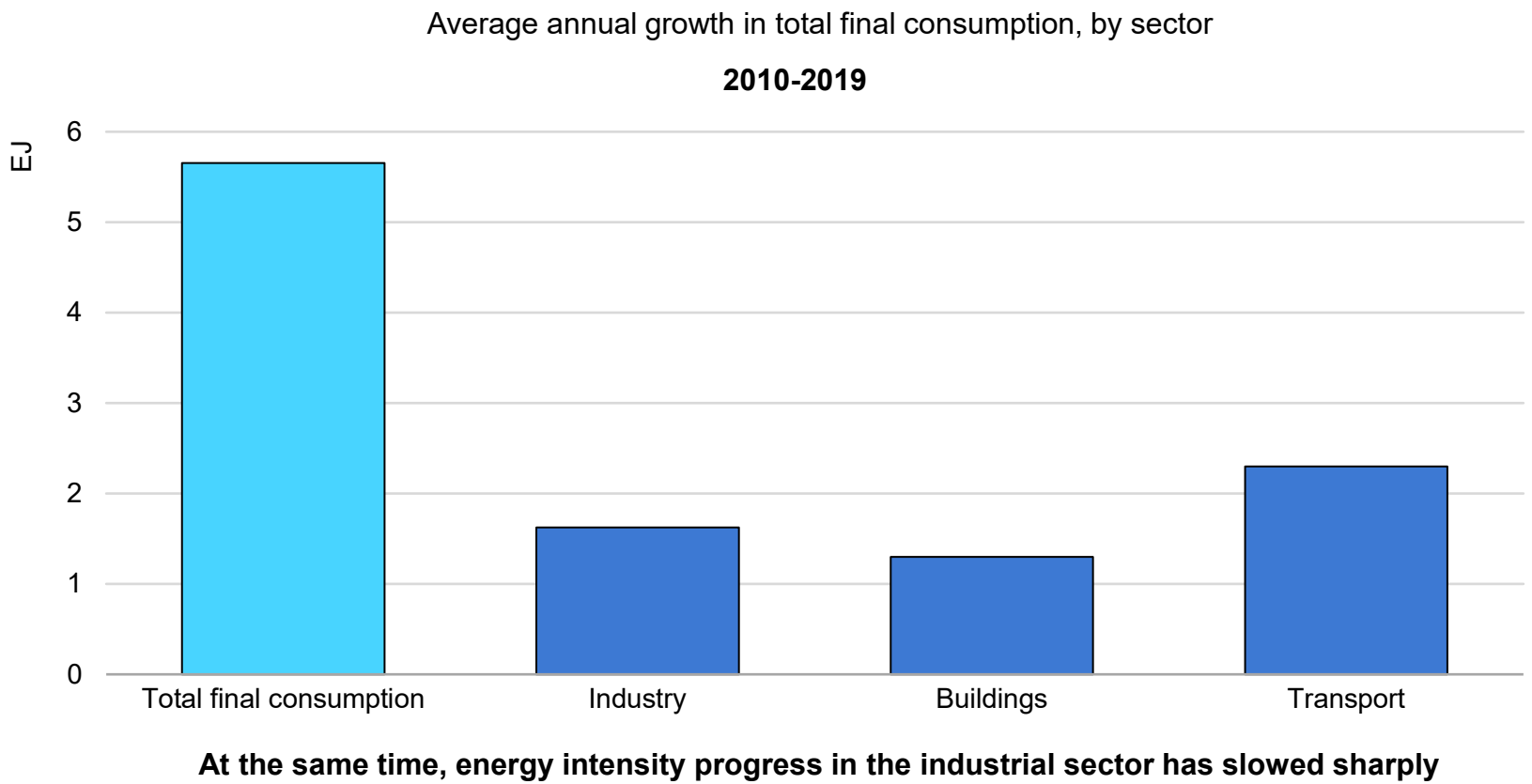
3. Efficiency standards for new buildings in **Japan** and **Brazil**, air conditioner policies in **India** and targeted retrofit grants in **Canada**

However, average efficiency progress this decade remains slow



The world remains well off track to achieve its COP28 ambition to double energy efficiency progress by 2030

Two-thirds of energy demand growth since 2019 was in industry



At the same time, energy intensity progress in the industrial sector has slowed sharply

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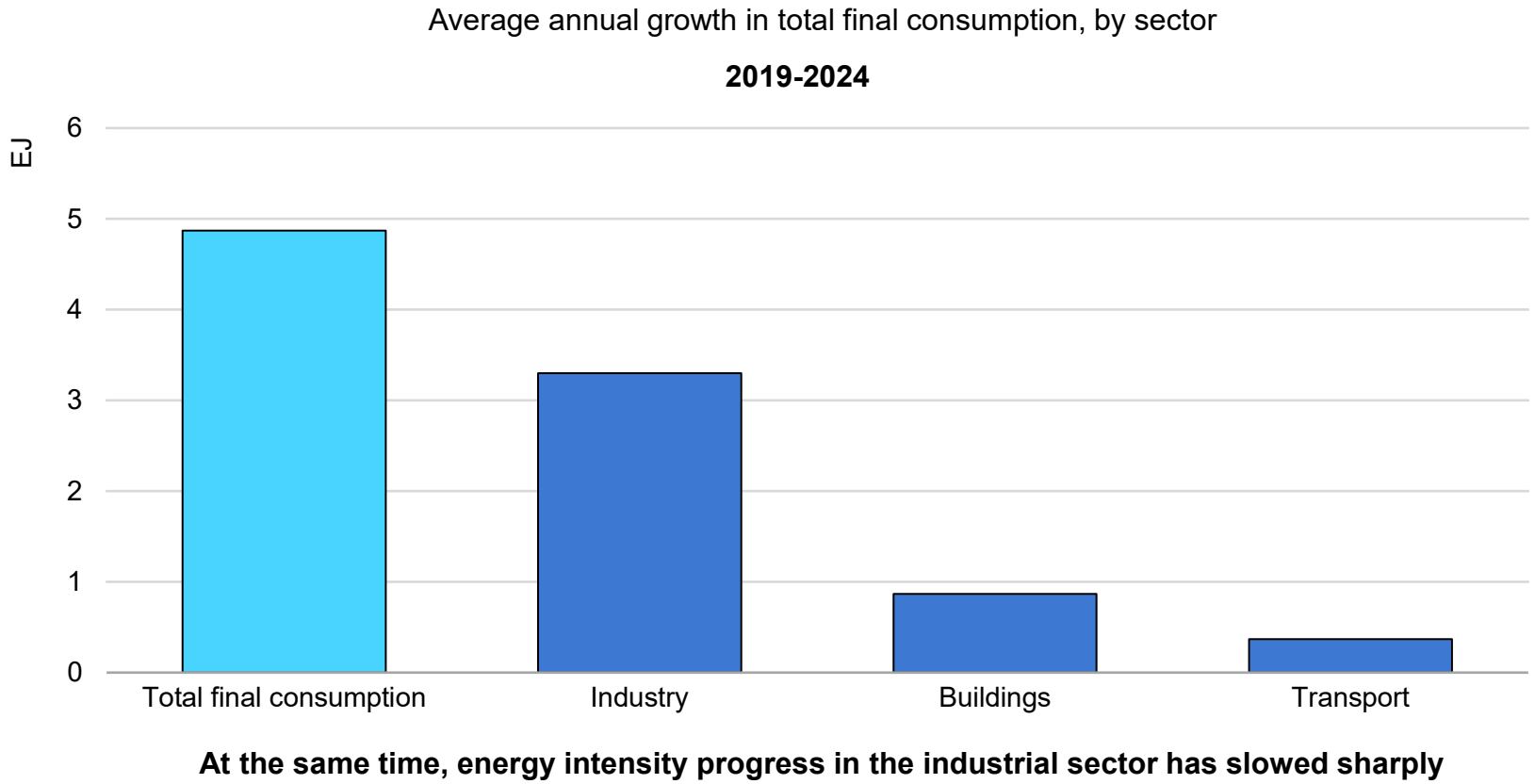

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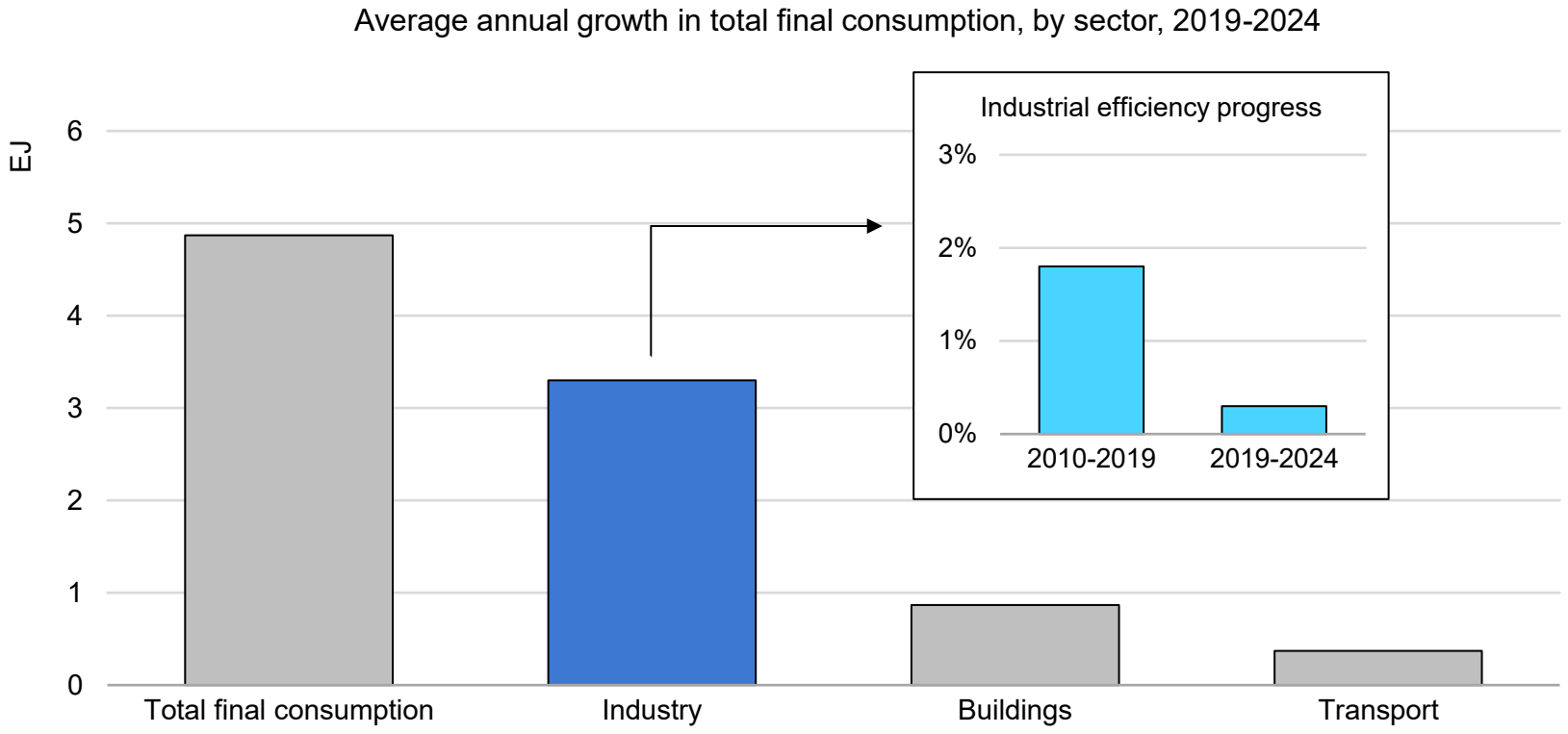

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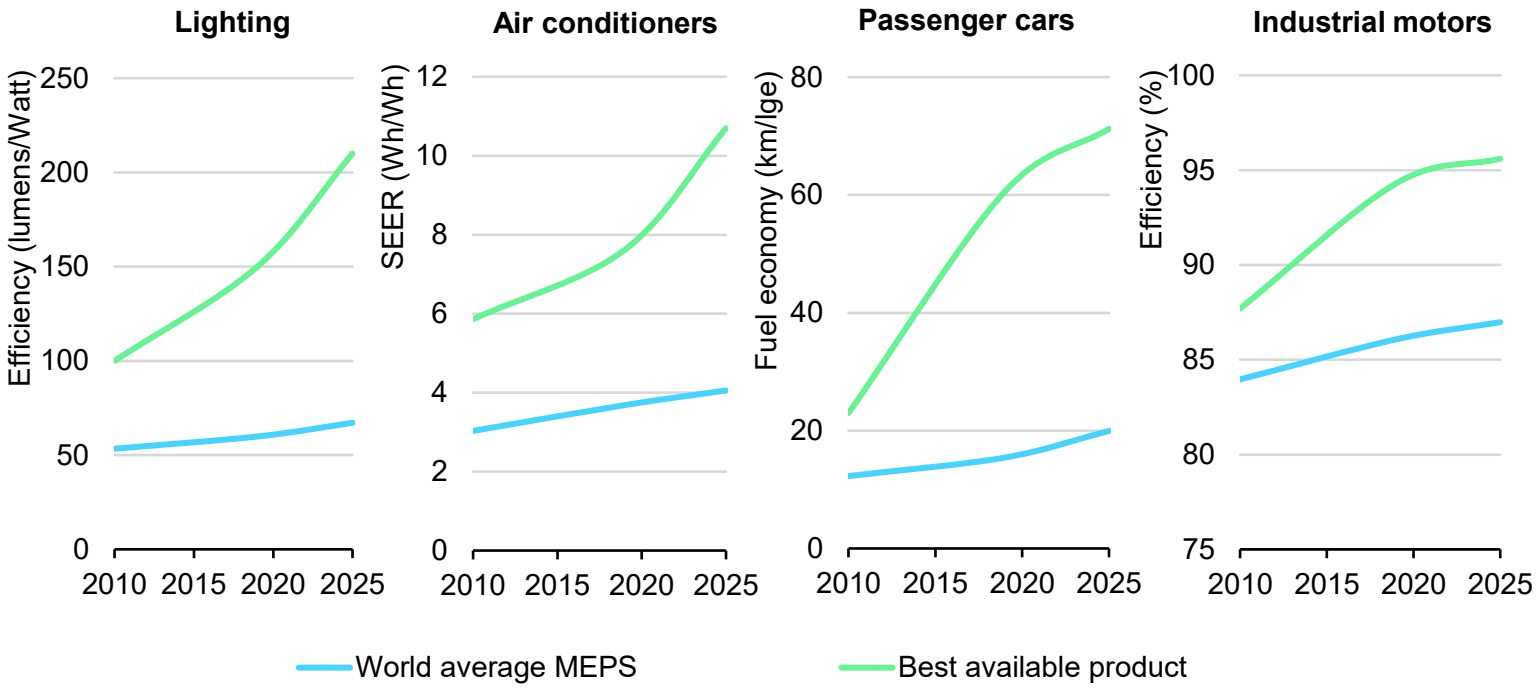
Policies have lagged technology progress in recent years

Energy efficiency levels of selected end-use technologies, 2010-2025



Today, appliances are often only half as efficient as the best models, showing policy has fallen behind technology

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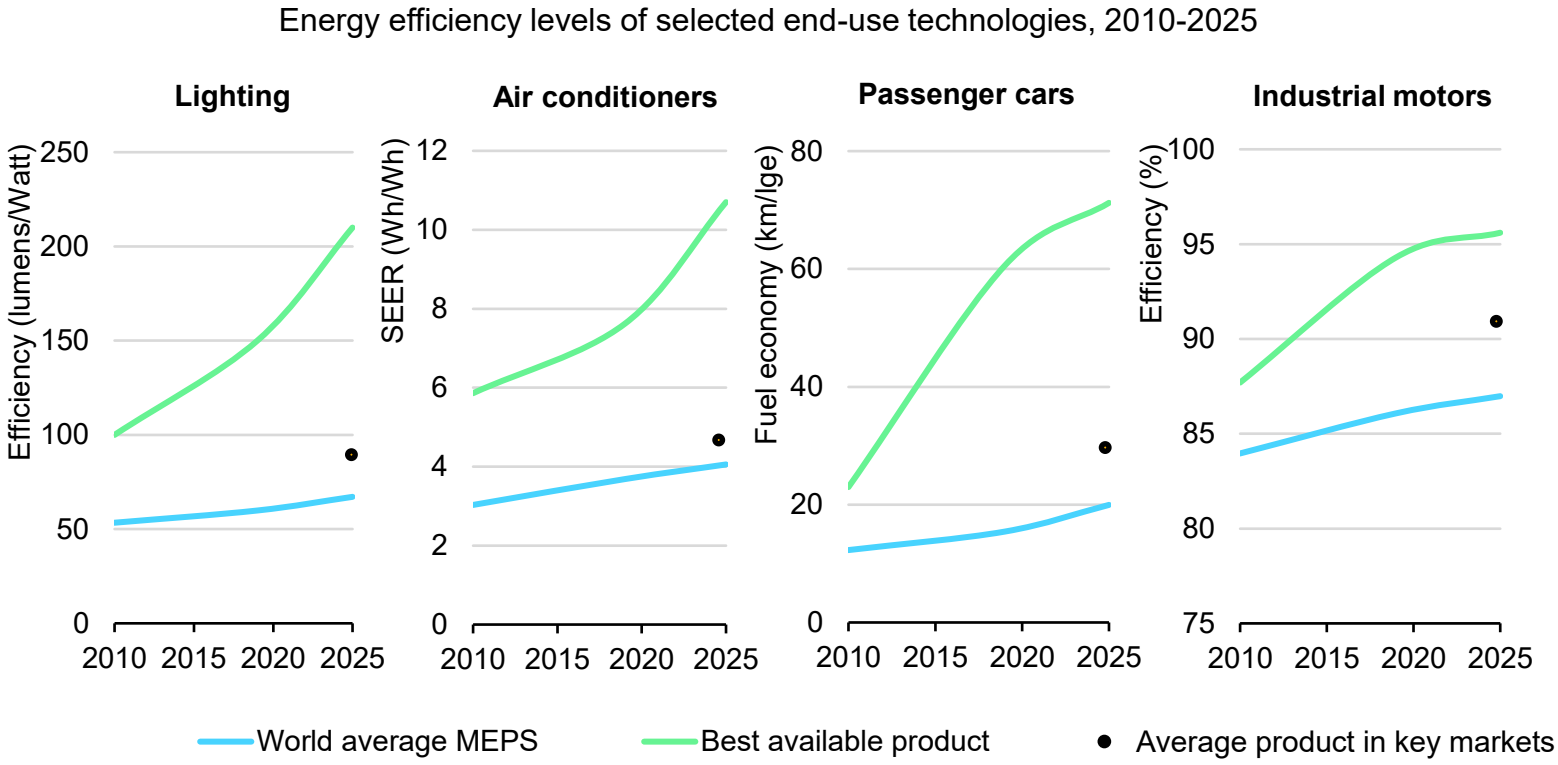

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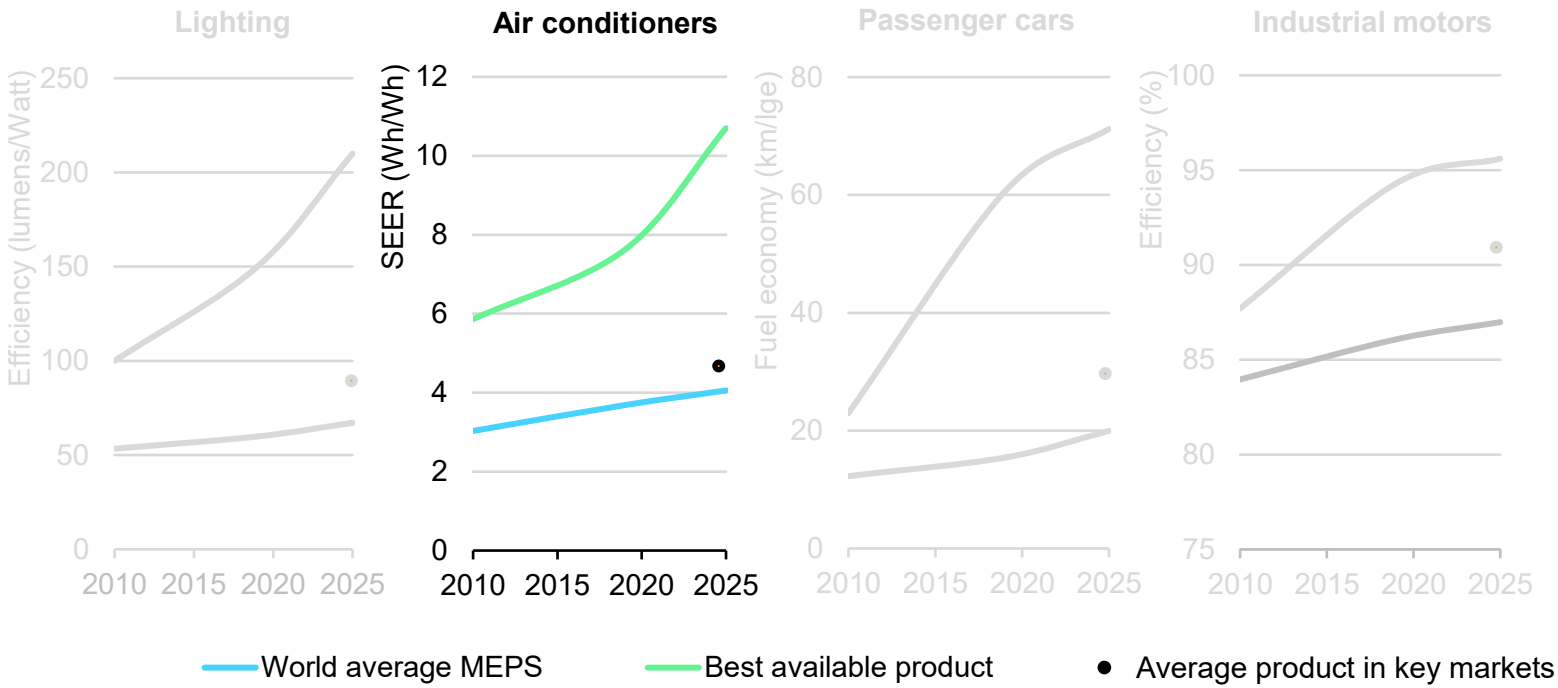

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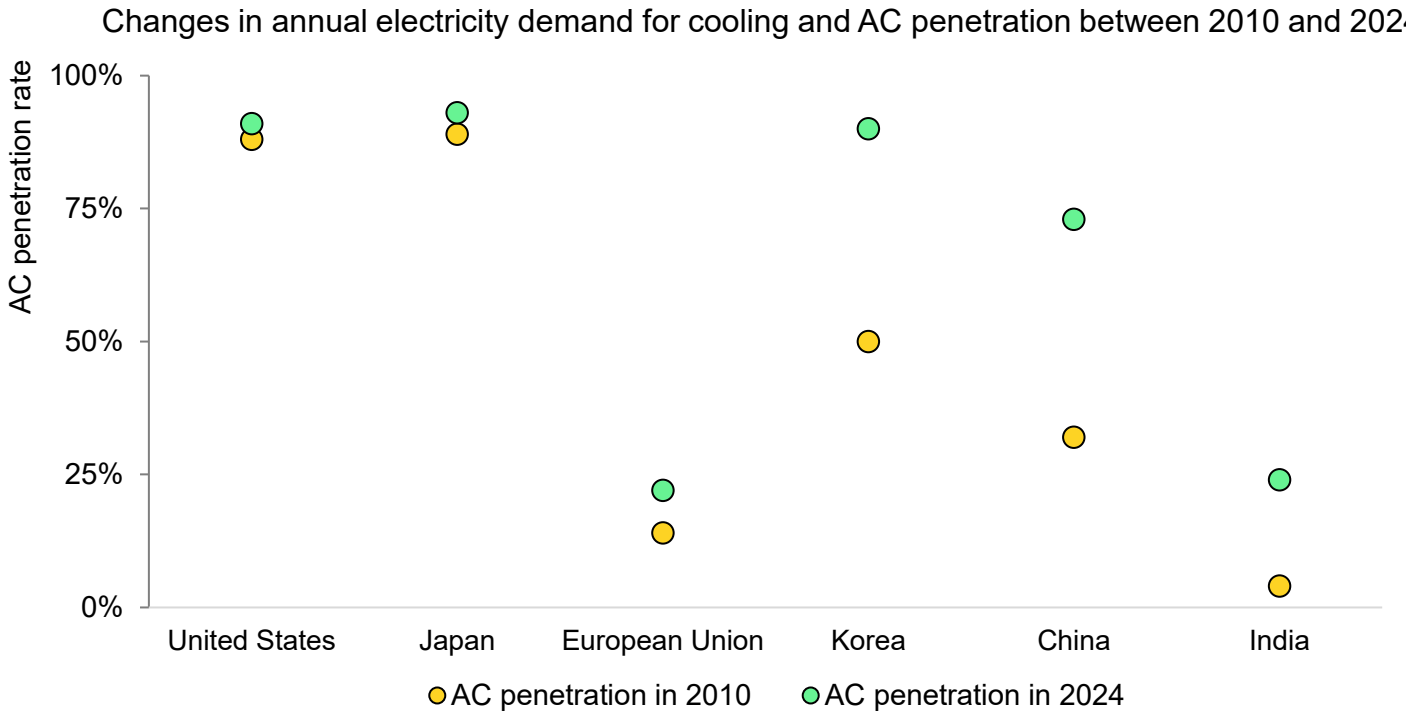
Cooling is a key driver of electricity demand growth



Energy to keep people cool has seen the fastest growth of any end-use technology in buildings this century

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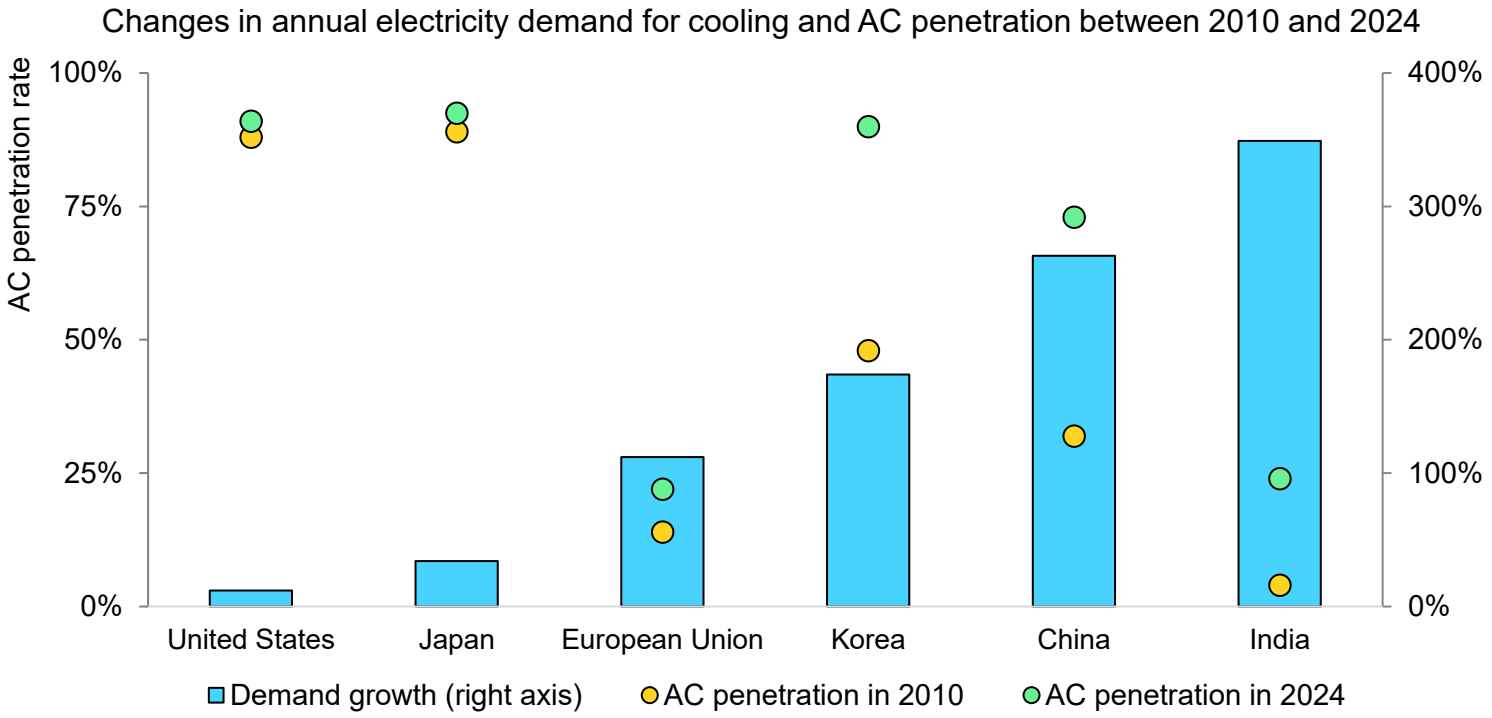

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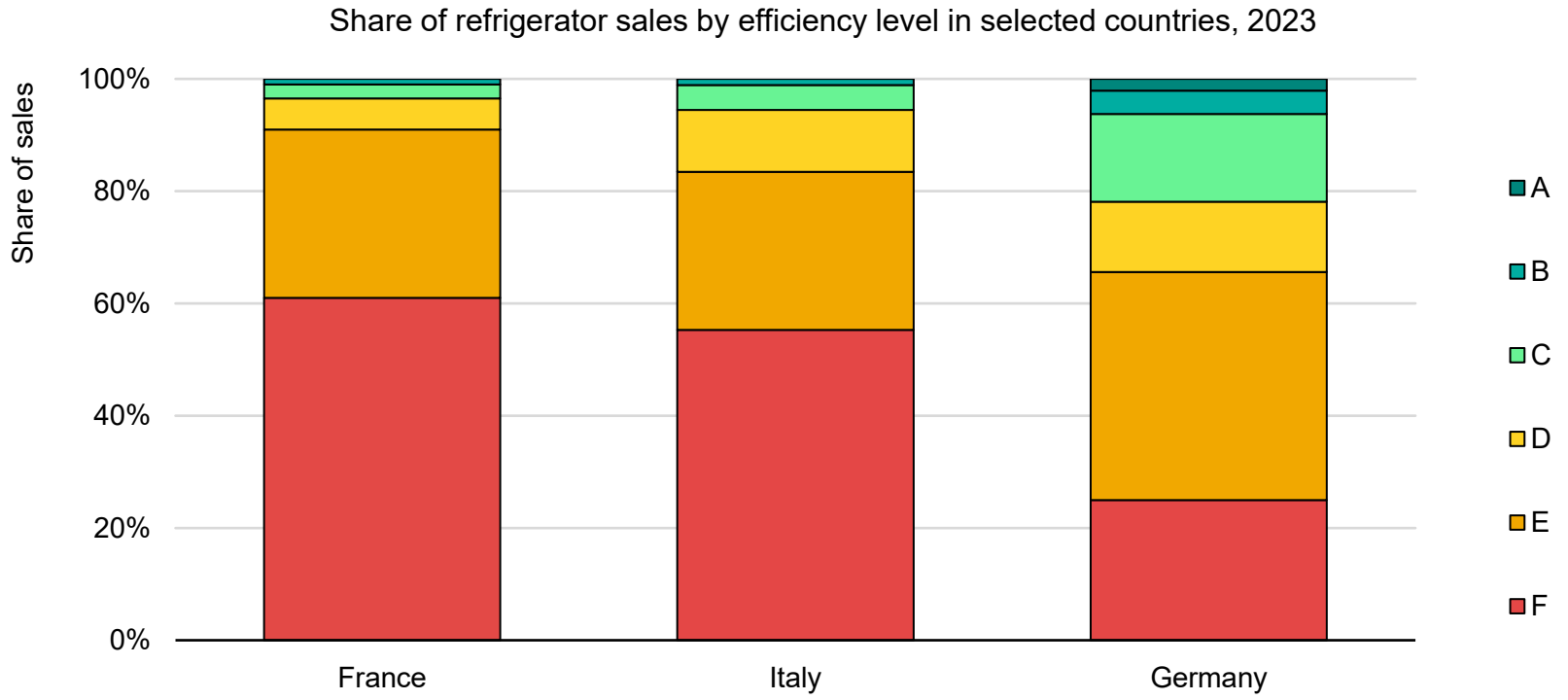
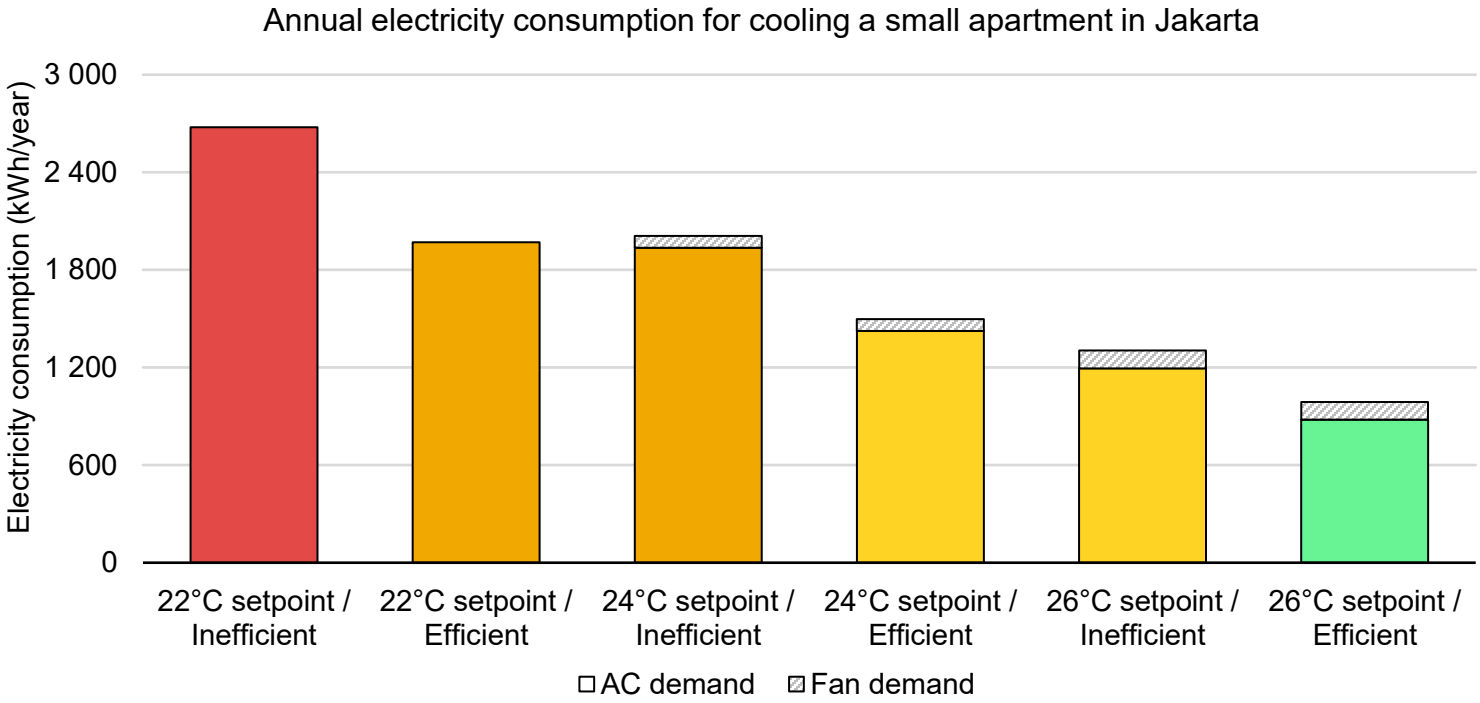
The role of people in improving efficiency

Markets do not always see the same uptake of efficient technologies



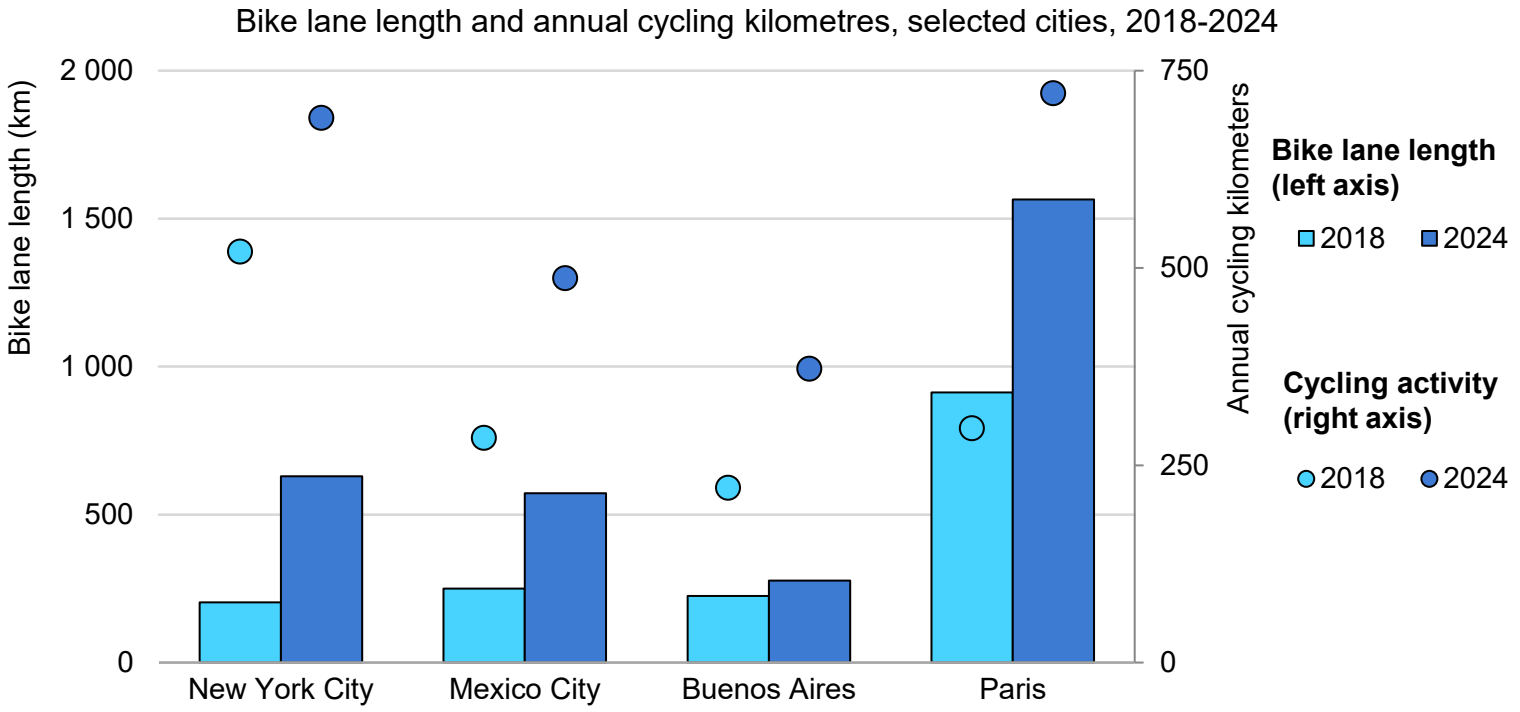
Even markets under the same regulations can see differences in the efficiency levels of new products sold

Changing default options of technologies can enhance efficient use



Combining technical efficiency with higher cooling setpoints can shrink electricity demand of air conditioner.

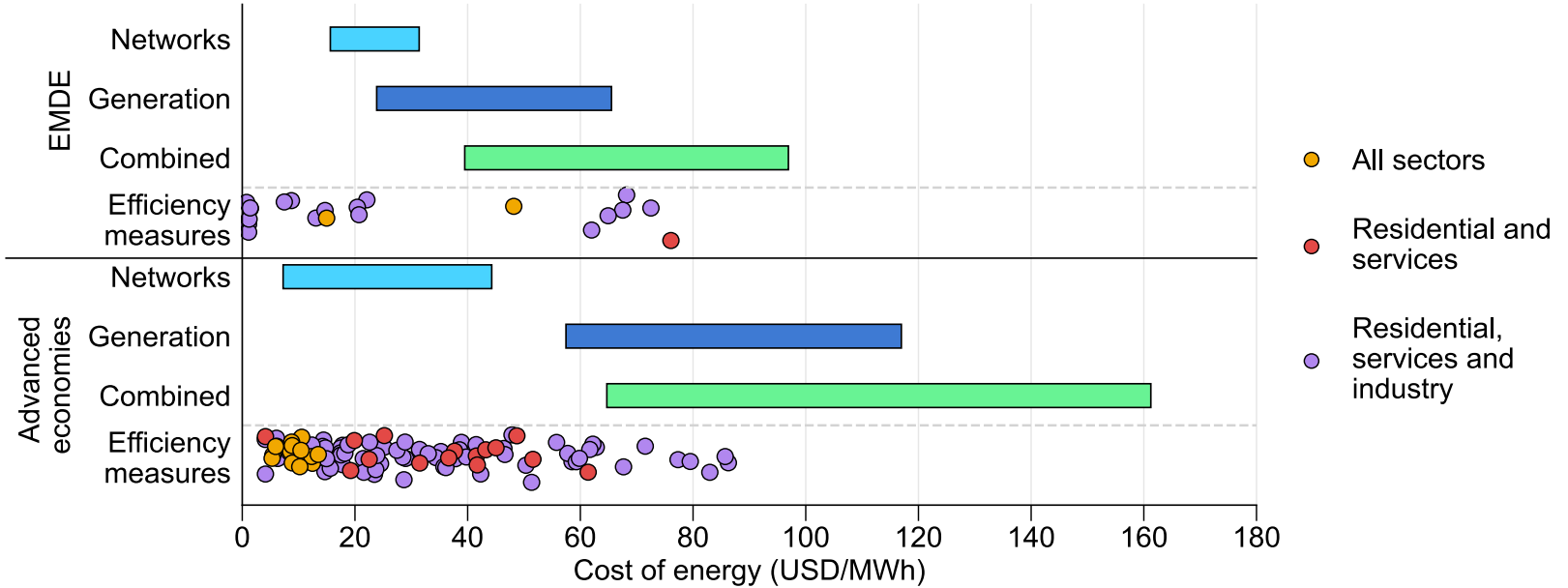
Infrastructure policies can affect a modal shift in cities



Cities are promoting modal shift through improved infrastructure and encouraging the use of public transport

Efficiency is a cheap and fast way to match supply and demand

Range of capital costs for future network and generation infrastructure (2030) versus historic efficiency programme costs (2010-2025)

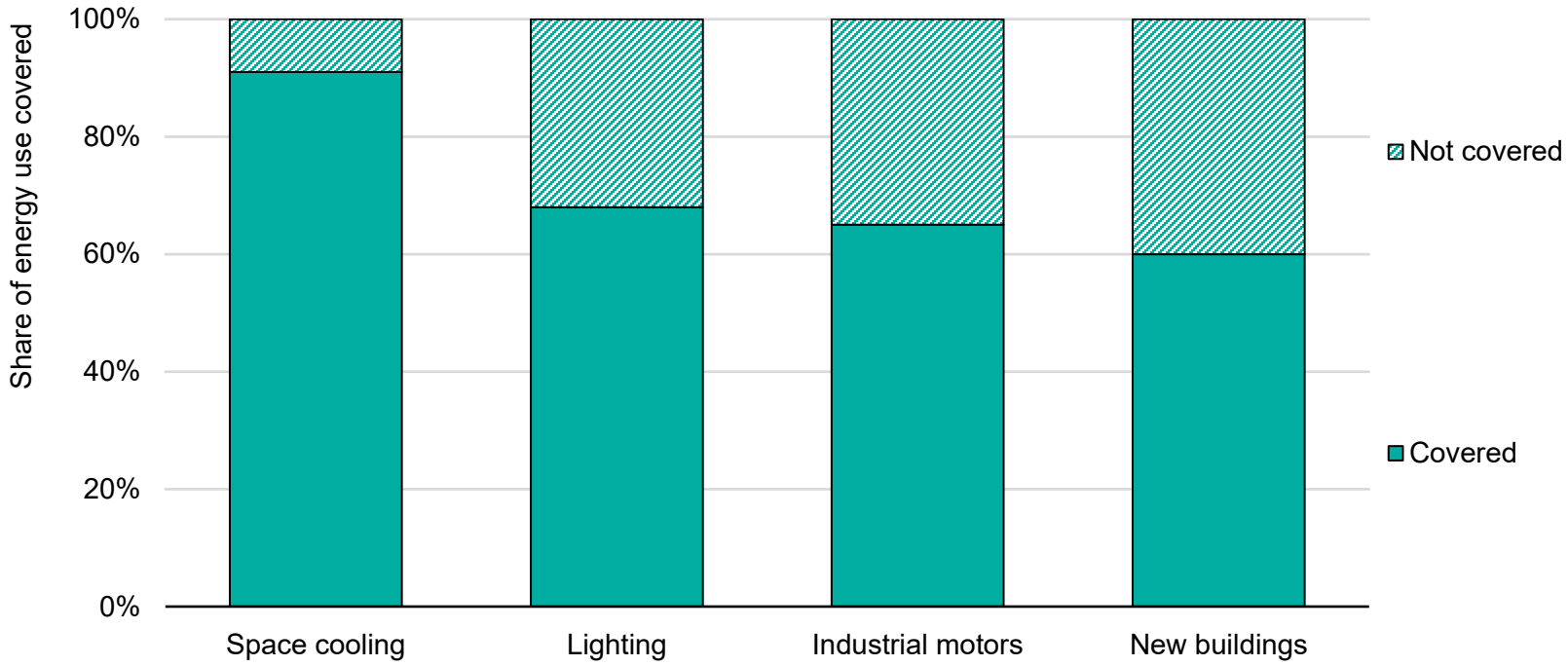


Energy efficiency can, in many cases, avoid the need for the same energy at a lower cost than new infrastructure

What can governments do?

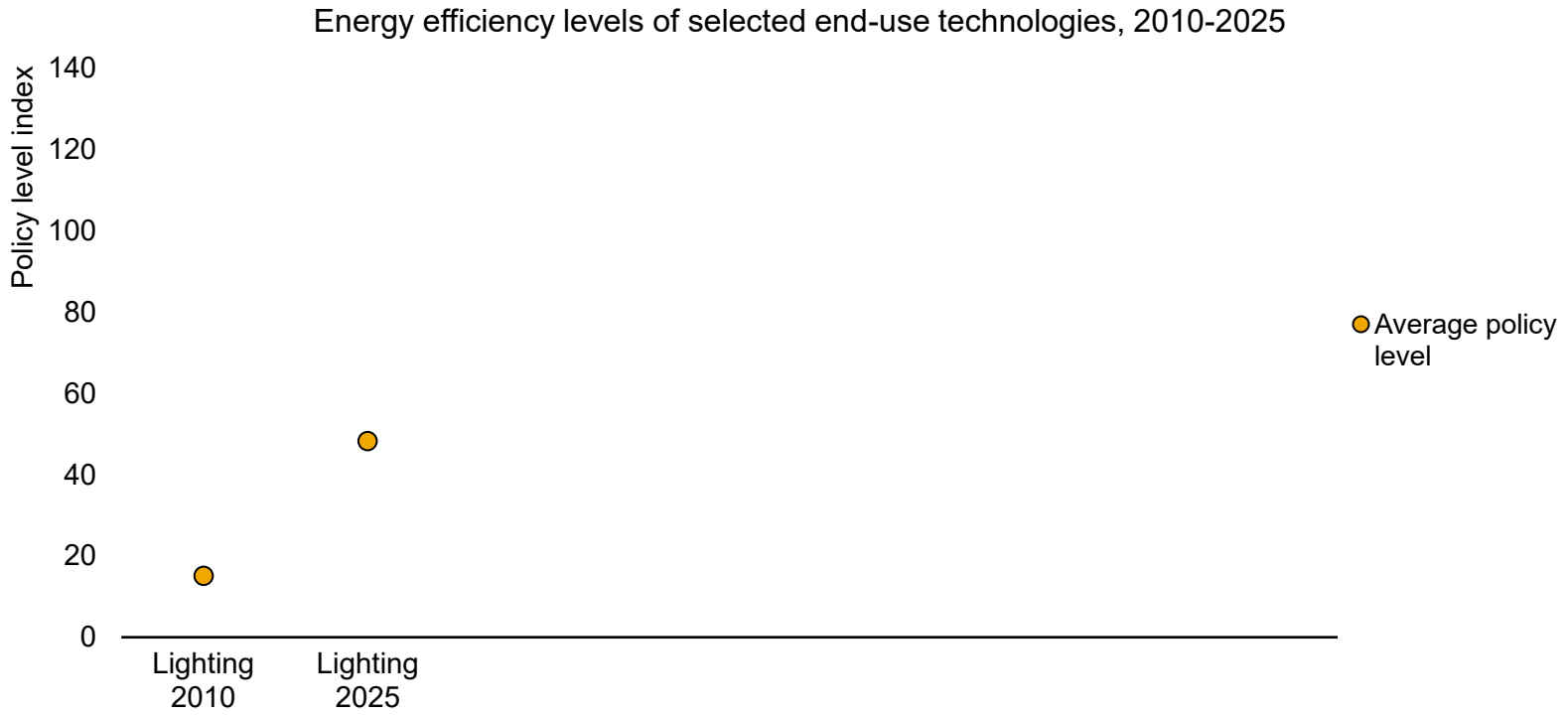
First, there remain important policy gaps to be filled

Energy use coverage of minimum energy performance standards for appliances, industrial motors and new buildings, 2025



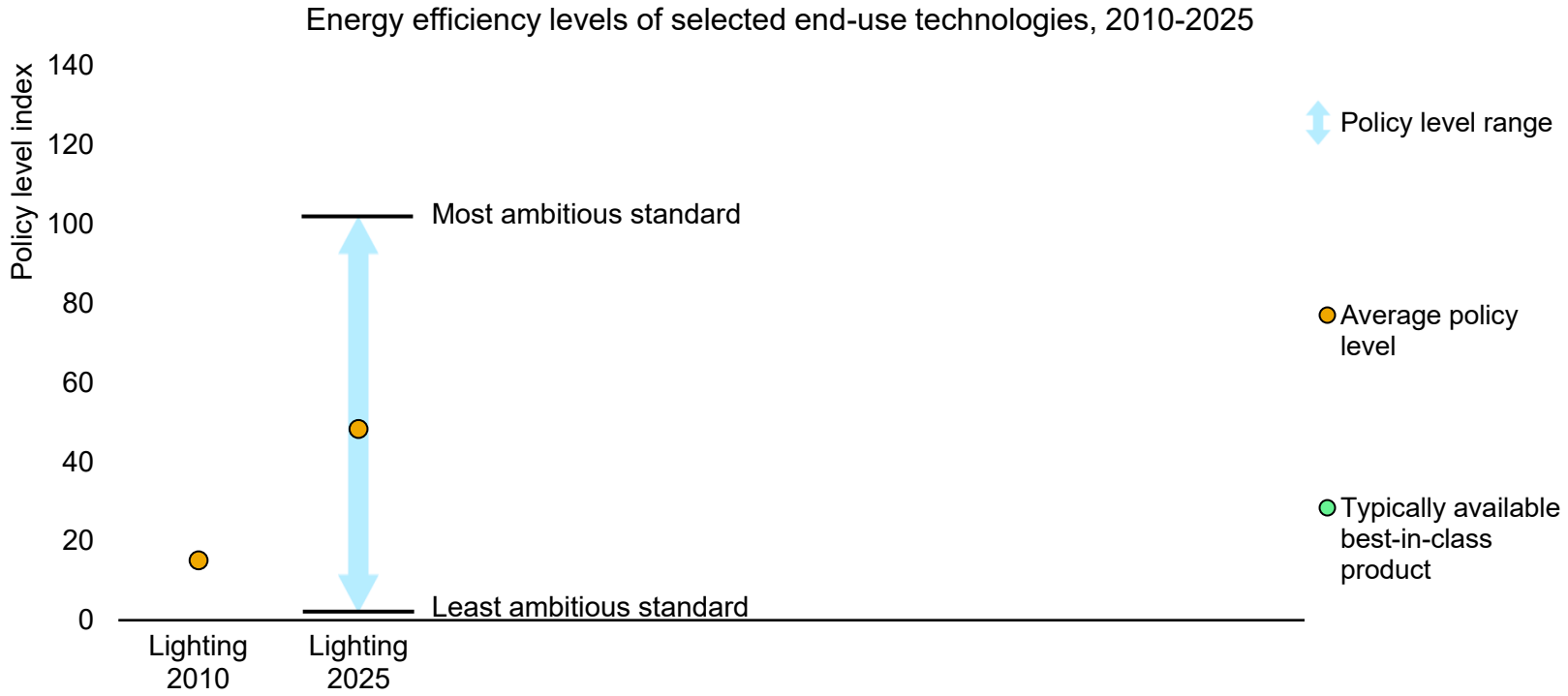
Nearly 40% of new buildings and motors are not yet covered by any energy efficiency requirements

Second, governments can raise the ambition of existing policies



There is a wide range between the global average MEPS level and the most ambitious ones in place today

Second, governments can raise the ambition of existing policies



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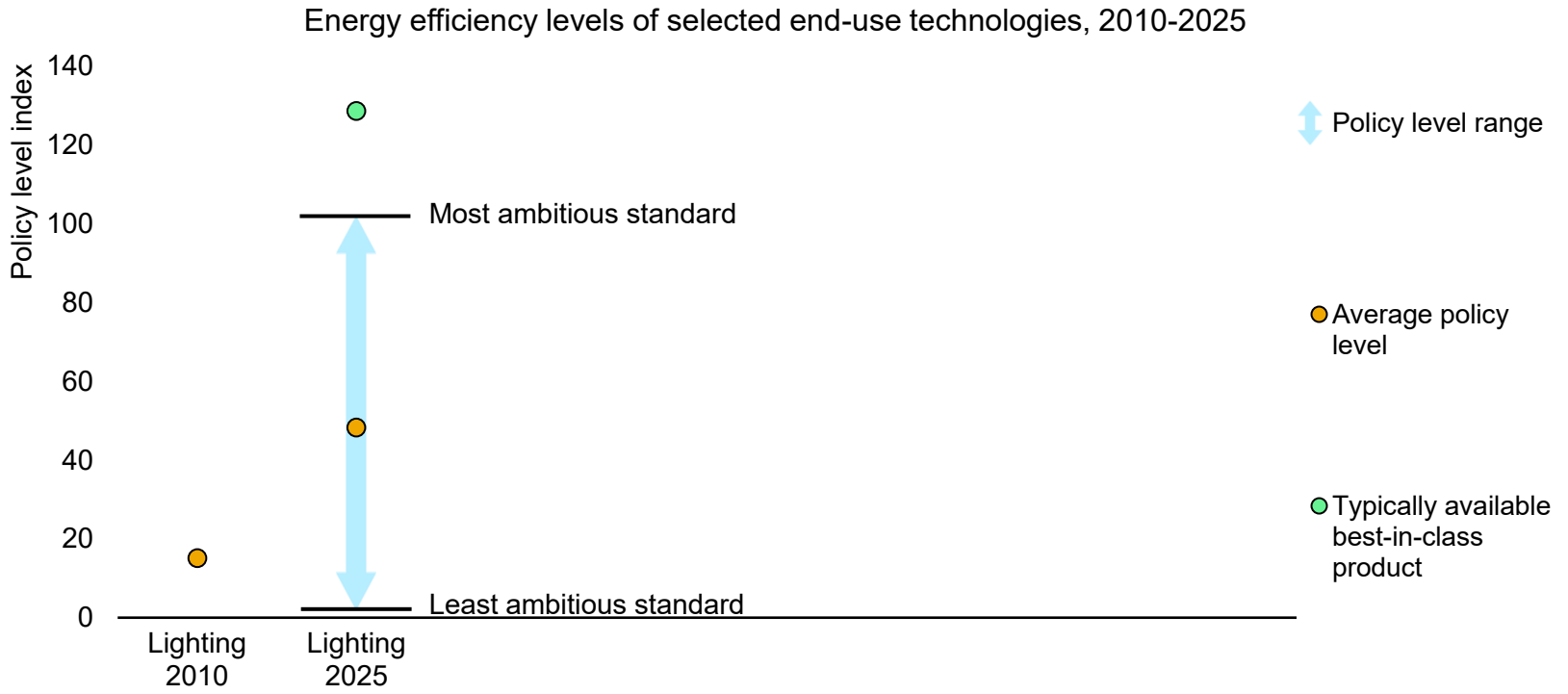

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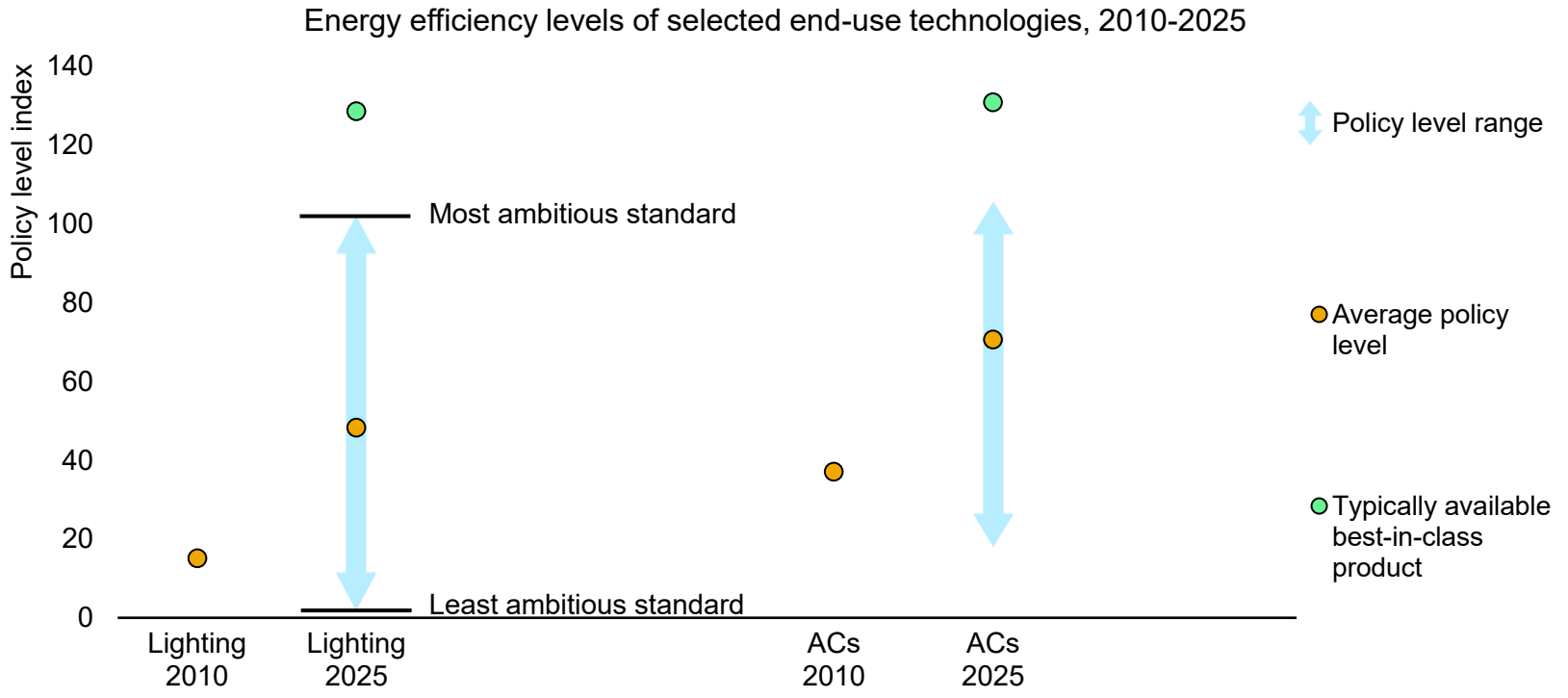

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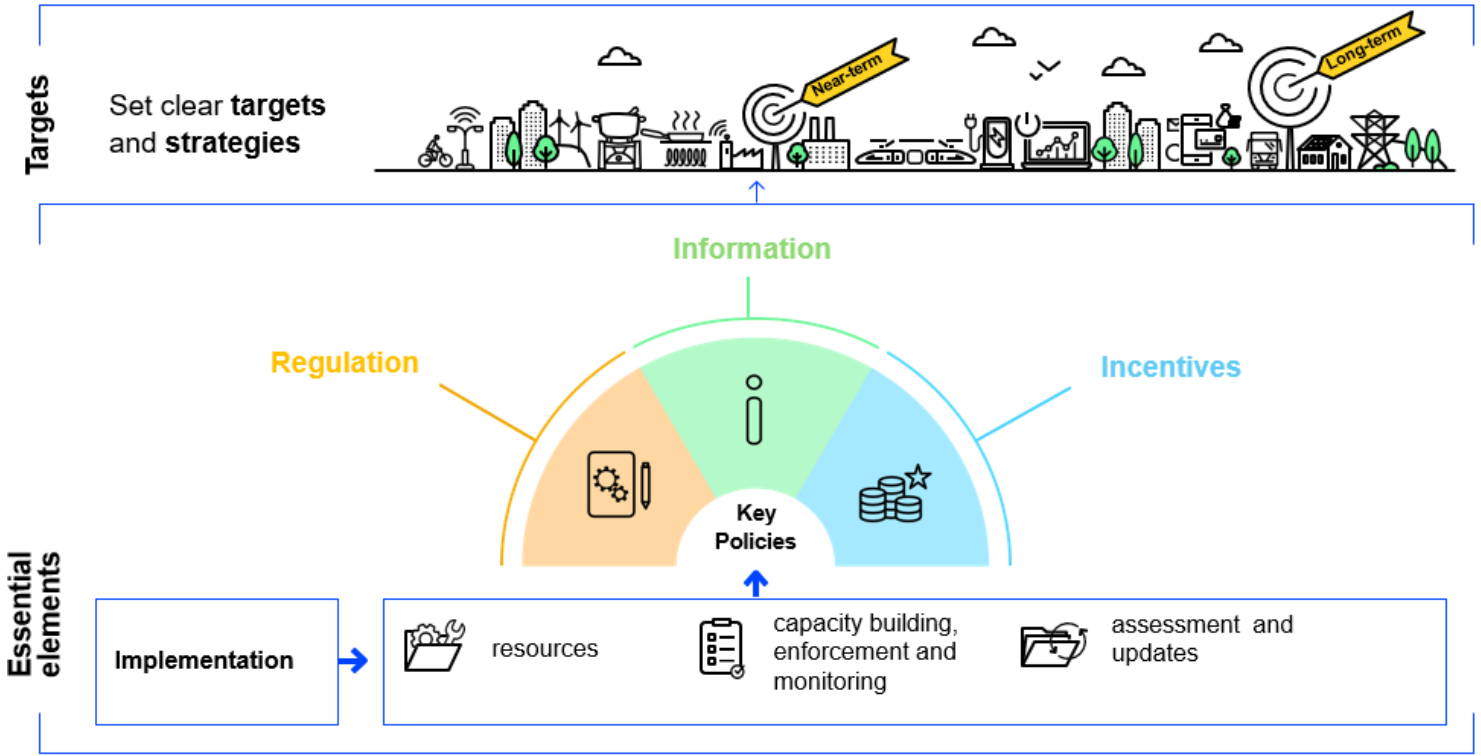
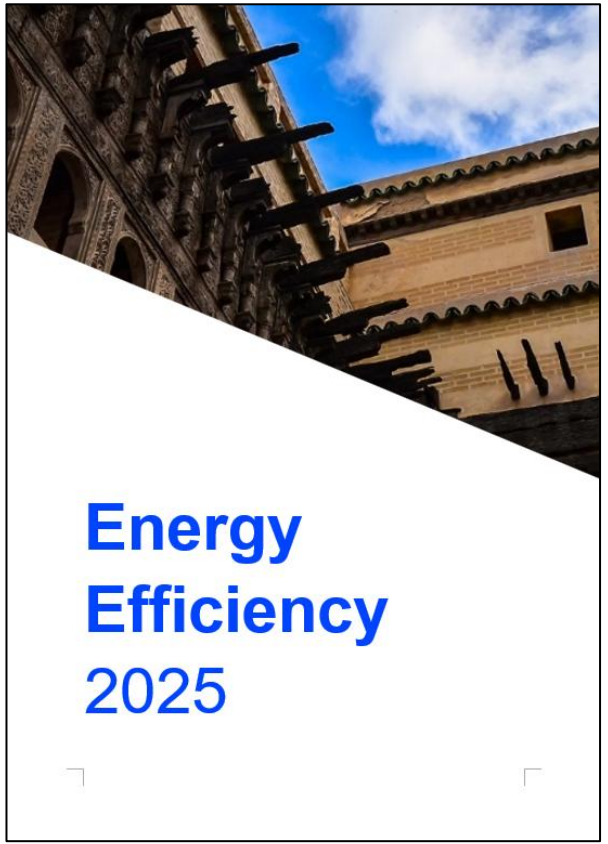
IEA policy toolkit provides practical advice for policy implementation



As part of the launch, the IEA added over 100 case studies for energy efficiency policy in the online database

Energy Efficiency 2025

- Read all this and more in the report:
  - In-depth insights for each end use sector
  - Trends in efficiency investment and employment
  - Key regional policy developments
  - New analysis on the benefits of efficiency
- In parallel to the report, the IEA also updated its Energy Efficiency Progress Tracker
- Find out more: iea.li/efficiency25



User-Centred Energy Systems

A Technology Collaboration Programme by IEA

UsersTCP

Our Vision

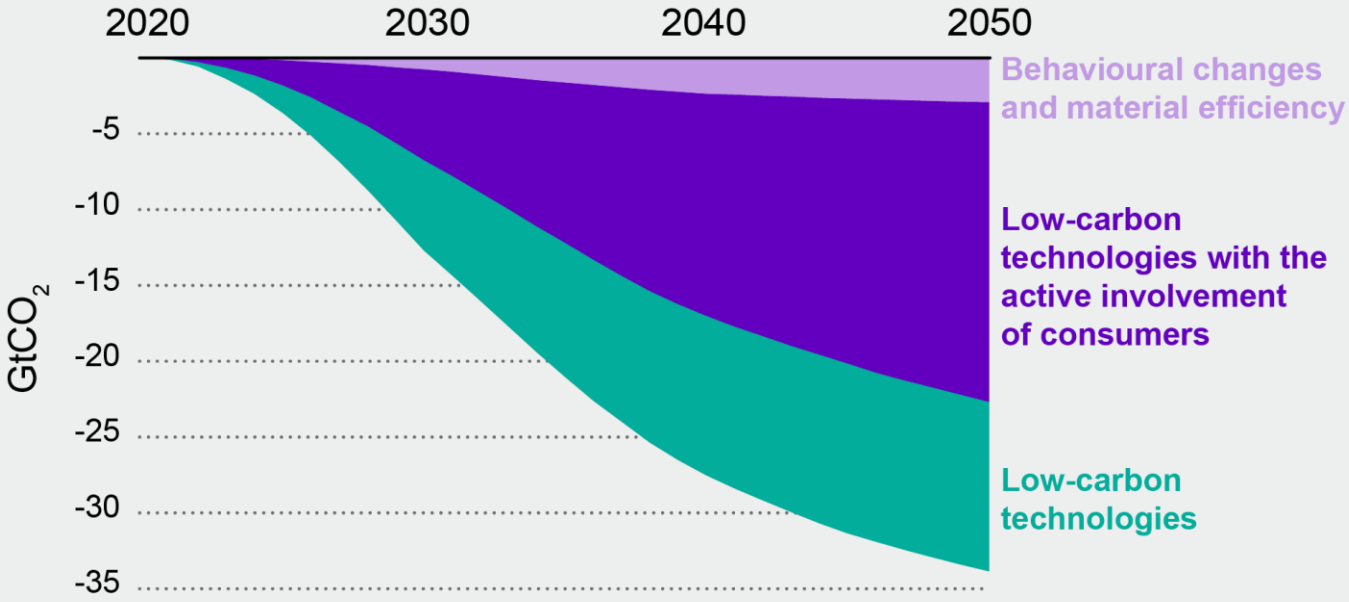
To provide a platform for international collaboration on policy-relevant socio-technical research on user-centred energy systems.

The Mission

To provide policy-relevant evidence on factors influencing energy use, including technology acceptance, and their impact on society.

UsersTCP

Role of technology and behavioural change in emissions reductions in the IEA's Net Zero Emissions Scenario

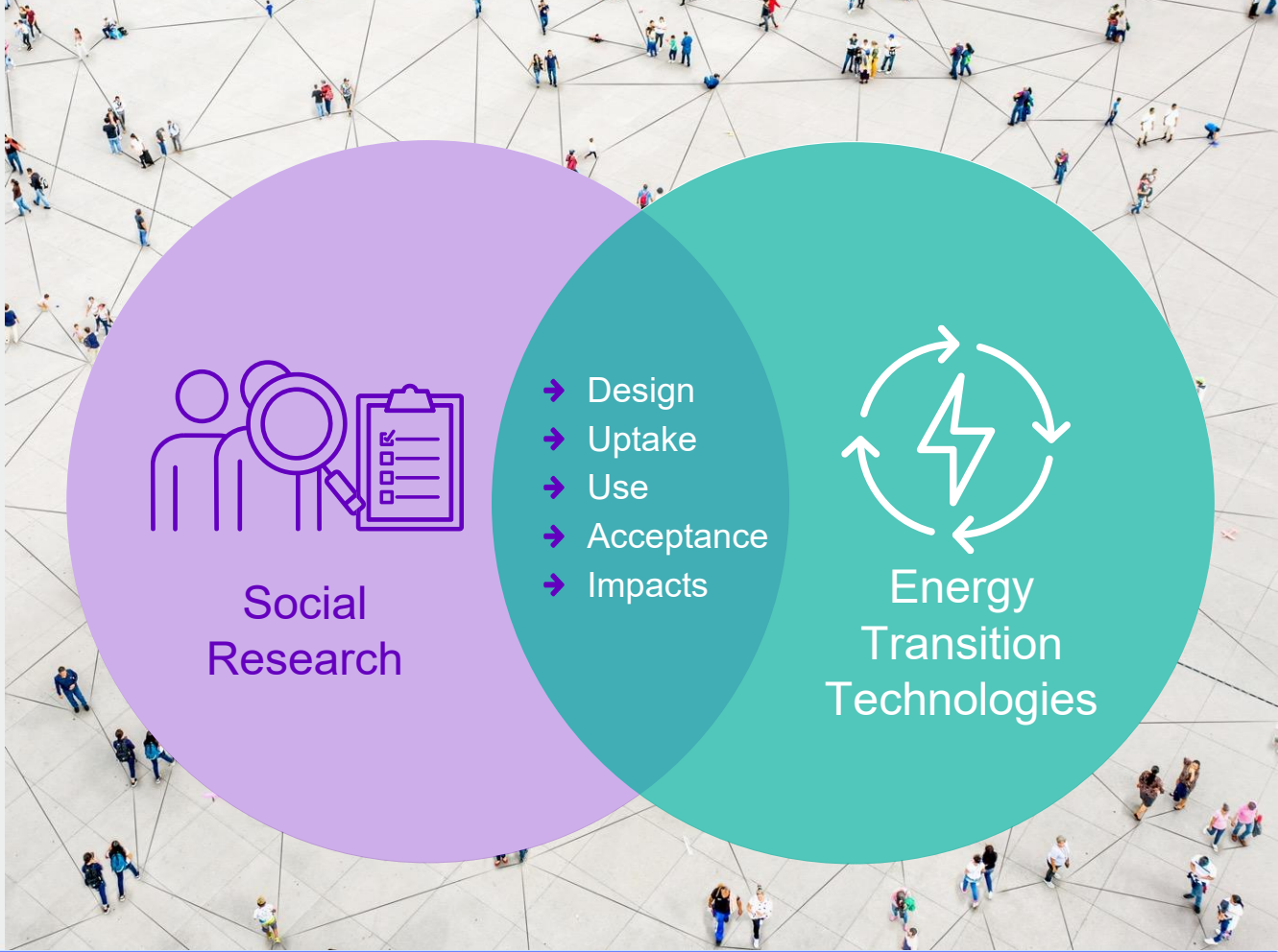


Source: Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, IEA (2023)

UsersTCP

What we do

Social research to support energy transition policy goals



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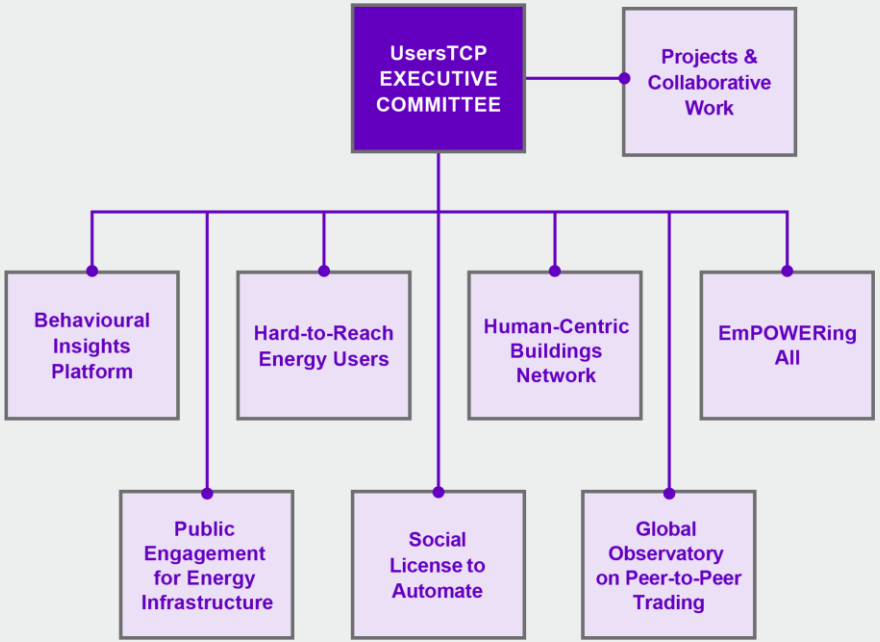
Structure

The Users TCP's Tasks are the main international collaborative mechanisms through which we deliver on our strategy.



UsersTCP

Contact Us

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or email TCP Secretariat
at admin@userstcp.org