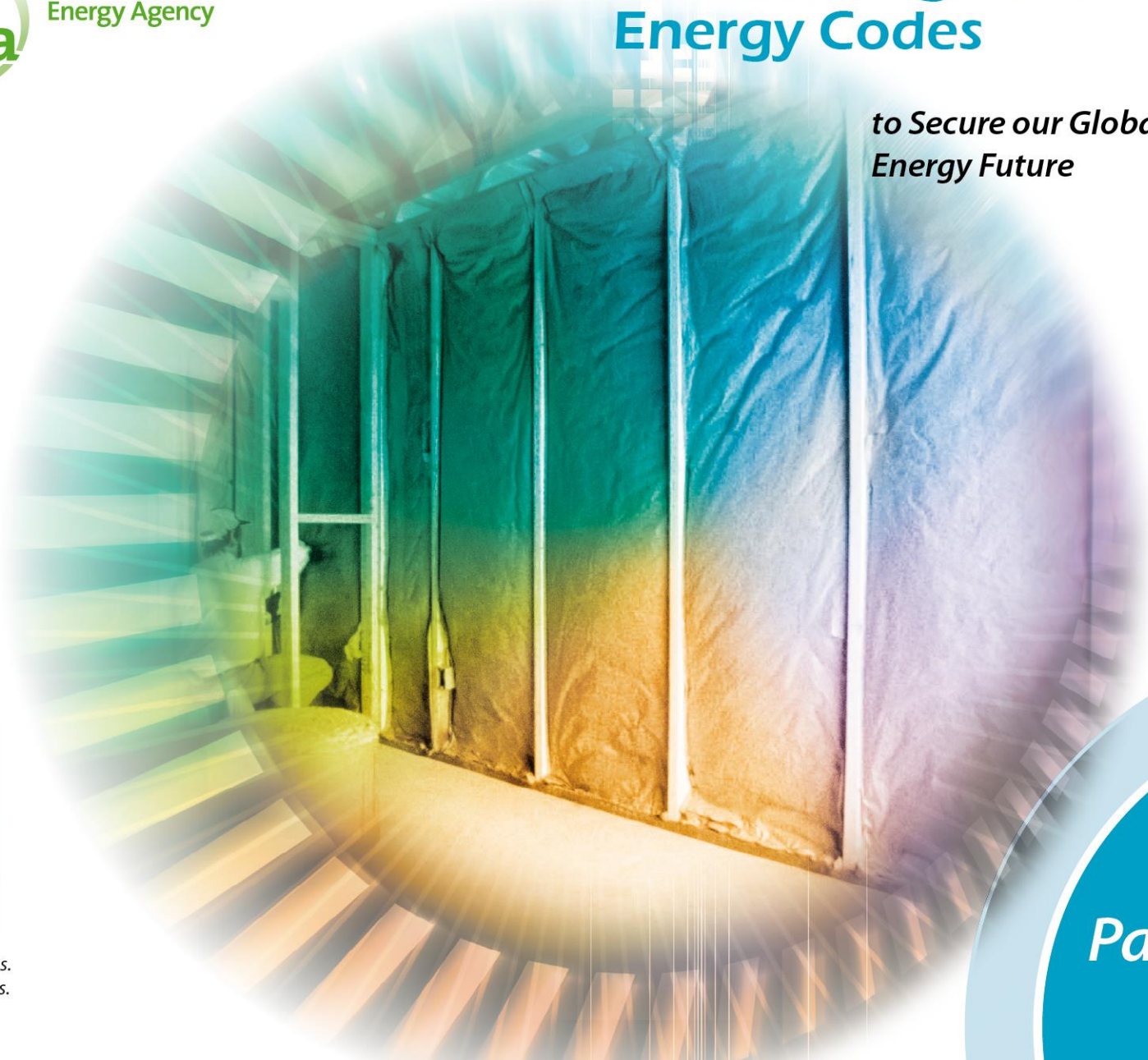




International
Energy Agency

Modernising Building Energy Codes

*to Secure our Global
Energy Future*



*Empowered lives.
Resilient nations.*

*Policy
Pathway*

Building energy code is the first IEA EE policy recommendation for buildings

The IEA recommends in its 25 Energy Efficiency Policy Recommendations that governments *“require all new buildings, as well as buildings undergoing renovation, to be covered by energy codes and meet minimum energy performance standards (MEPs) that aim to minimise life-cycle costs.*

Energy codes and MEPs should be enforced, regularly strengthened and take a holistic approach that includes the building envelope and equipment”



Modernising
Building
Energy Codes

to Secure our
Global Energy
Future

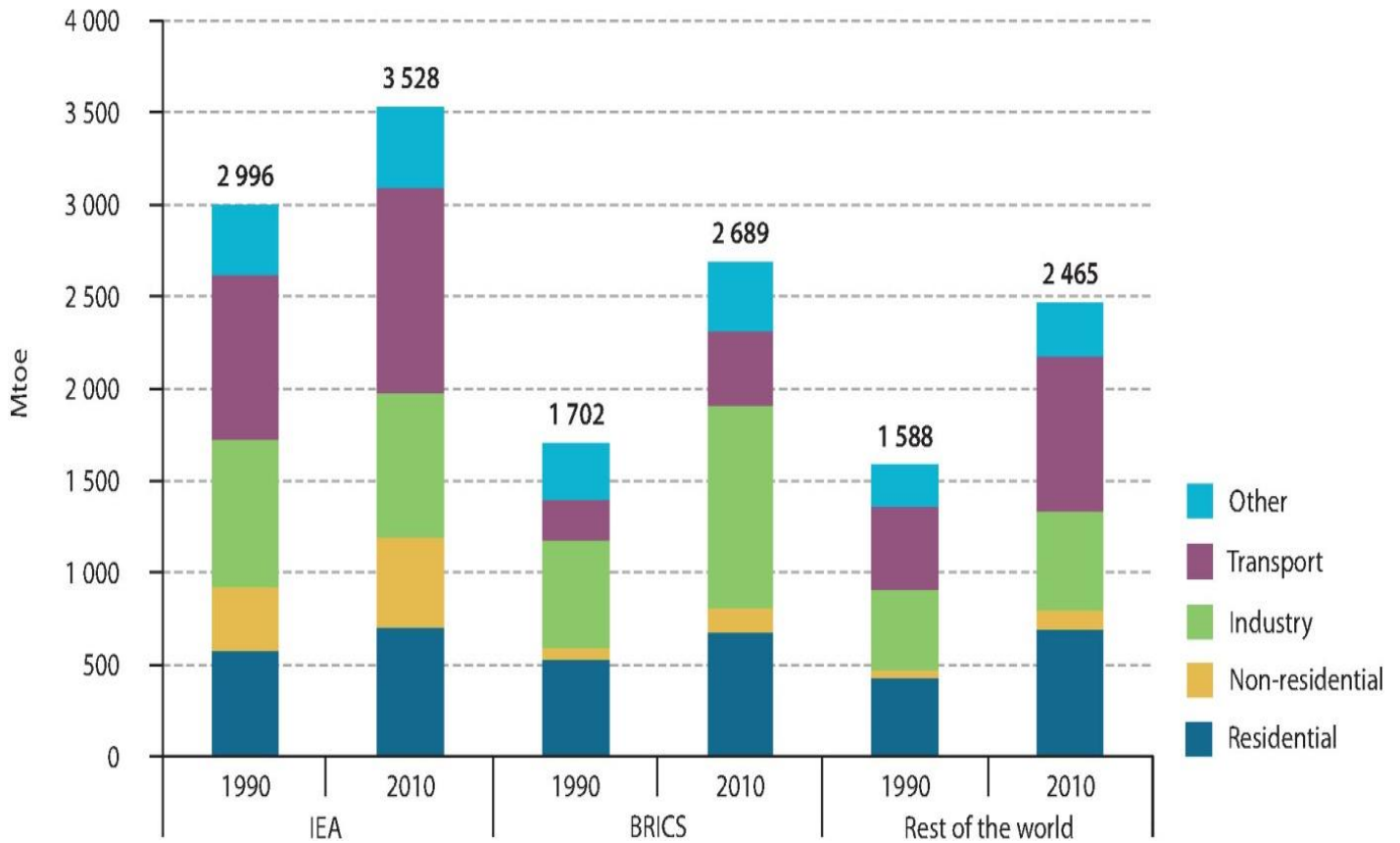


Empowered lives.
Resilient nations.



The buildings sector is the largest consumer of energy globally

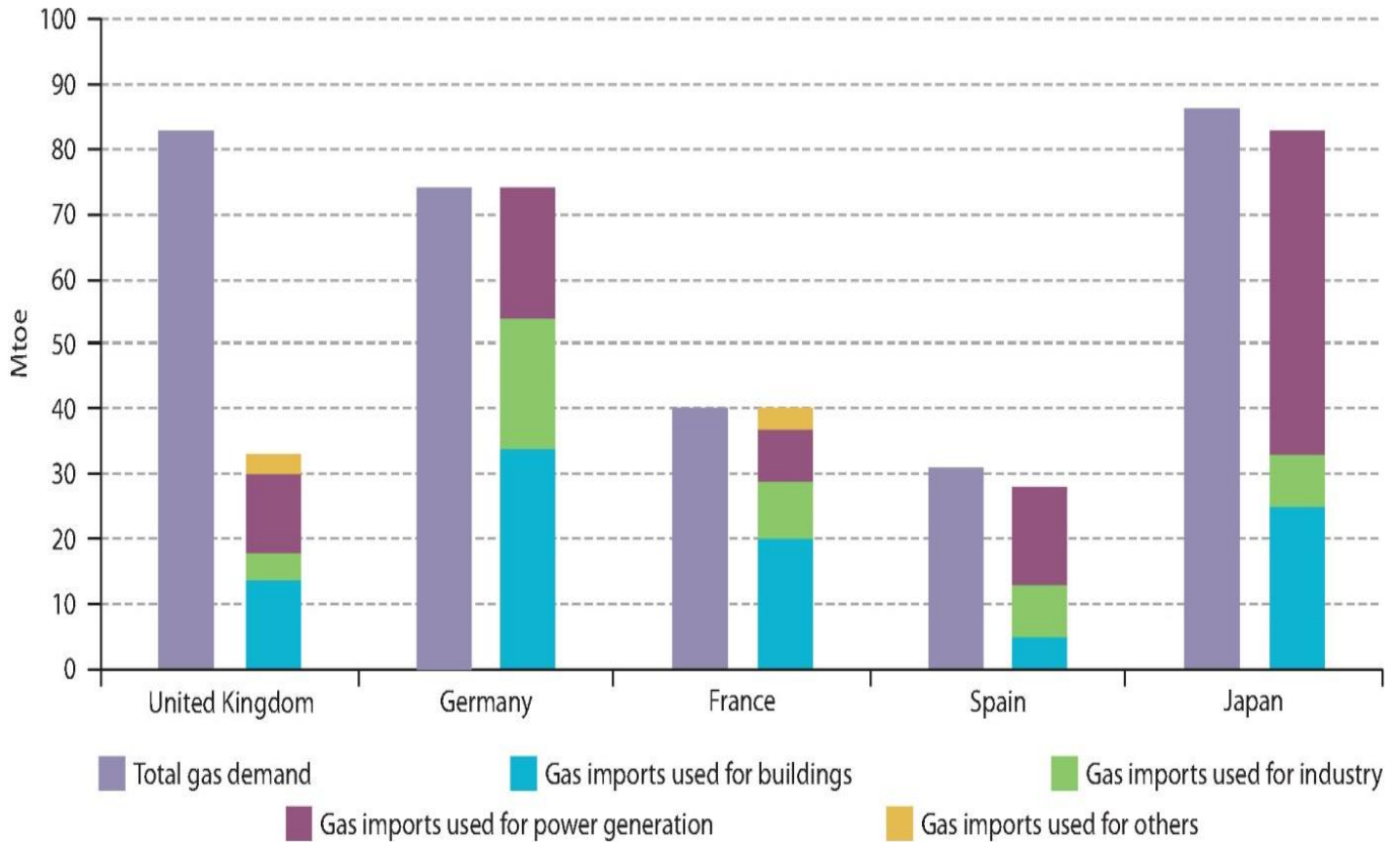
Modernising Building Energy Codes to Secure our Global Energy Future



Empowered lives. Resilient nations.

The buildings sector exerts a heavy pressure on global energy supply

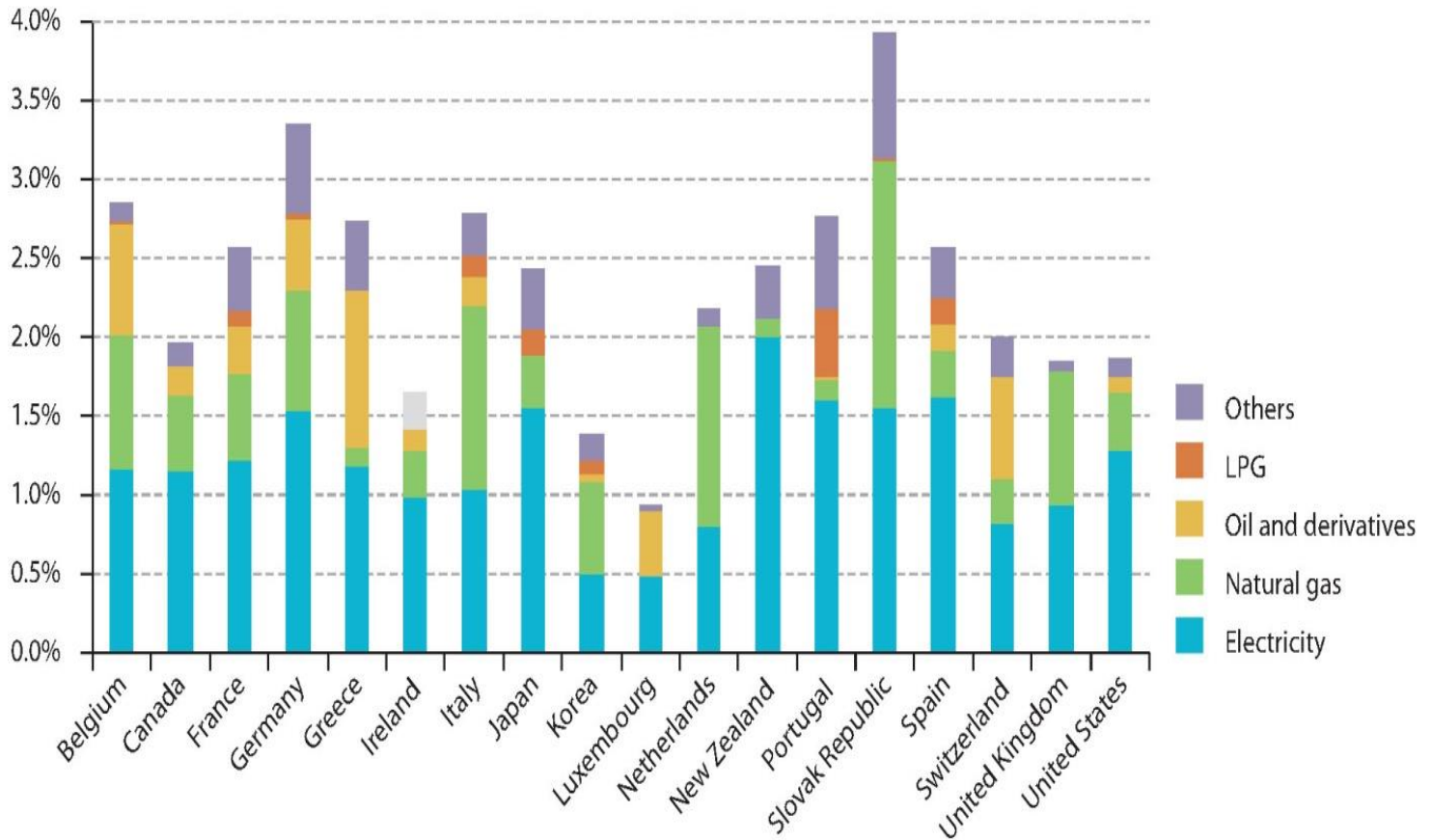
Modernising Building Energy Codes
to Secure our Global Energy Future



Residential energy expenditures place a heavy burden on households

Modernising Building Energy Codes

to Secure our Global Energy Future



UN
DP

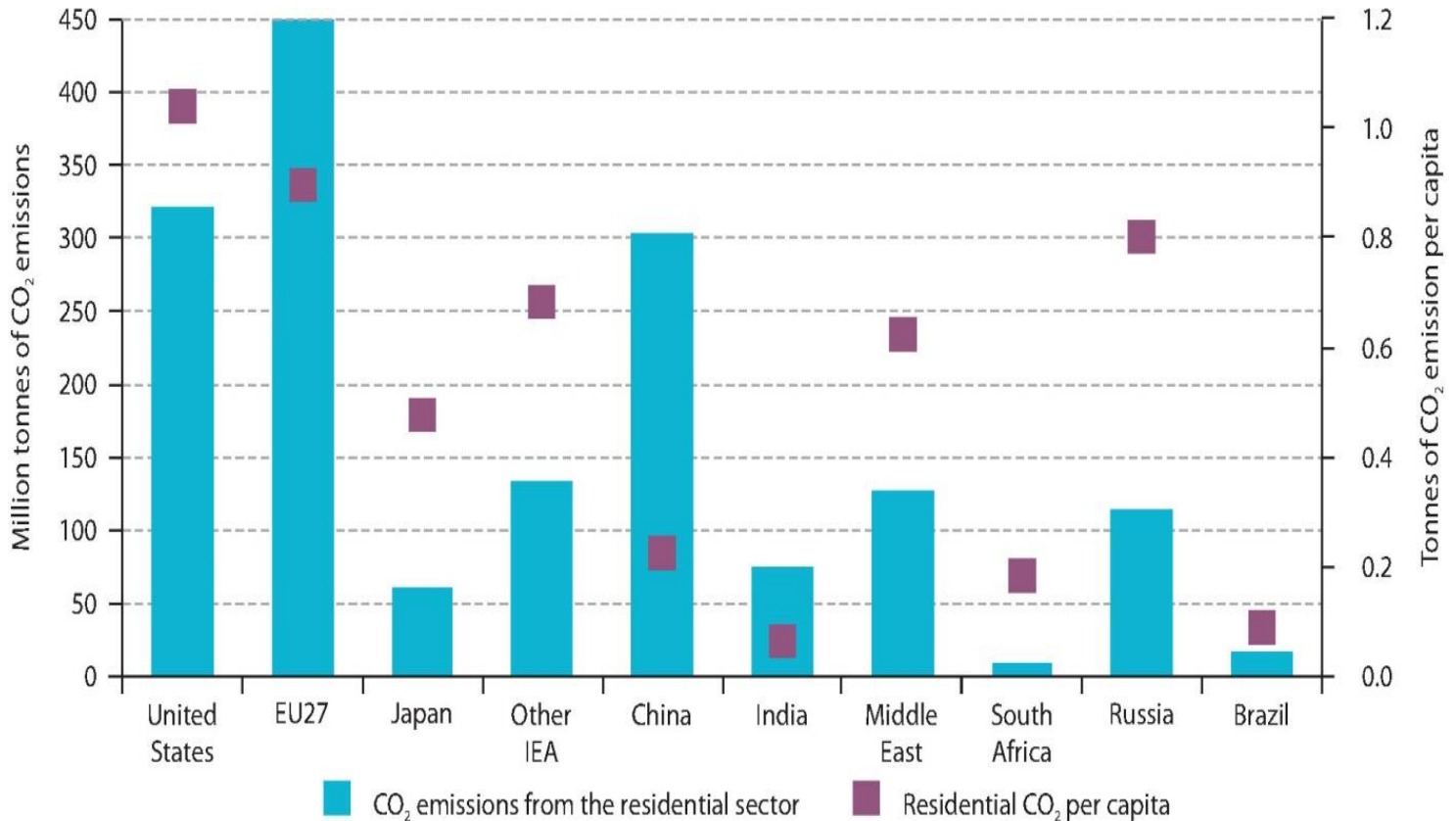
Empowered lives.
Resilient nations.



Energy used in buildings generates significant GHG emissions

Modernising Building Energy Codes

to Secure our Global Energy Future



UN
DP

Empowered lives.
Resilient nations.



Building energy codes: the policy instrument to reduce buildings' energy consumption

1970

- Prescriptive energy codes (trade-off could be made between energy performance of the envelope and those of HVAC systems)

1990

- Model energy codes (called also performance code in some countries) (energy requirements vary from one reference building to another)

2000

- Overall performance code (integrated design & holistic approach, standard energy performance requirements for each building type in each climate zone)

Modernising
Building
Energy Codes

to Secure our
Global Energy
Future



UN
DP

Empowered lives.
Resilient nations.

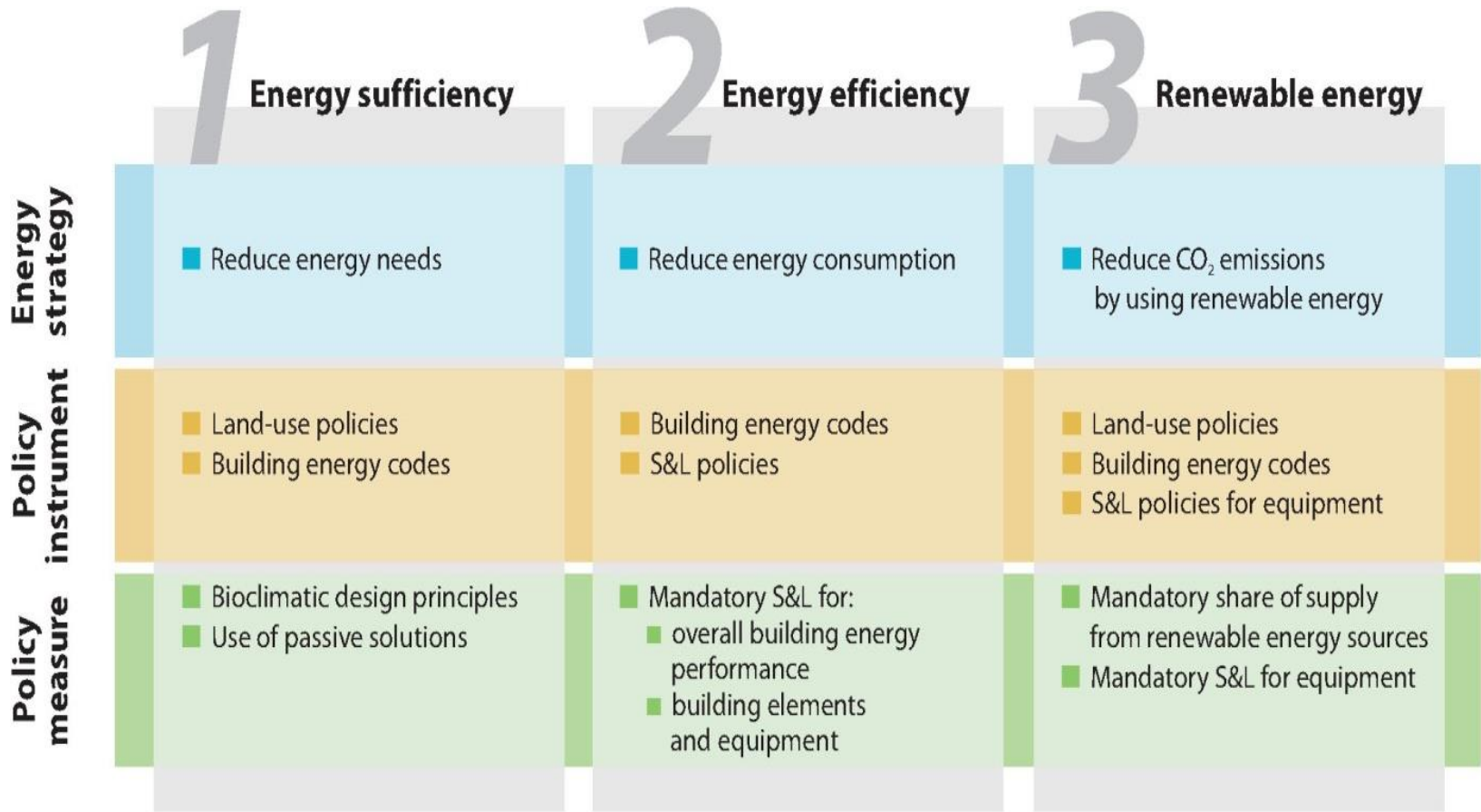
Policy Pathway

Modern building energy codes: energy sufficiency, energy efficiency and renewable energy

Modernising Building Energy Codes
to Secure our Global Energy Future

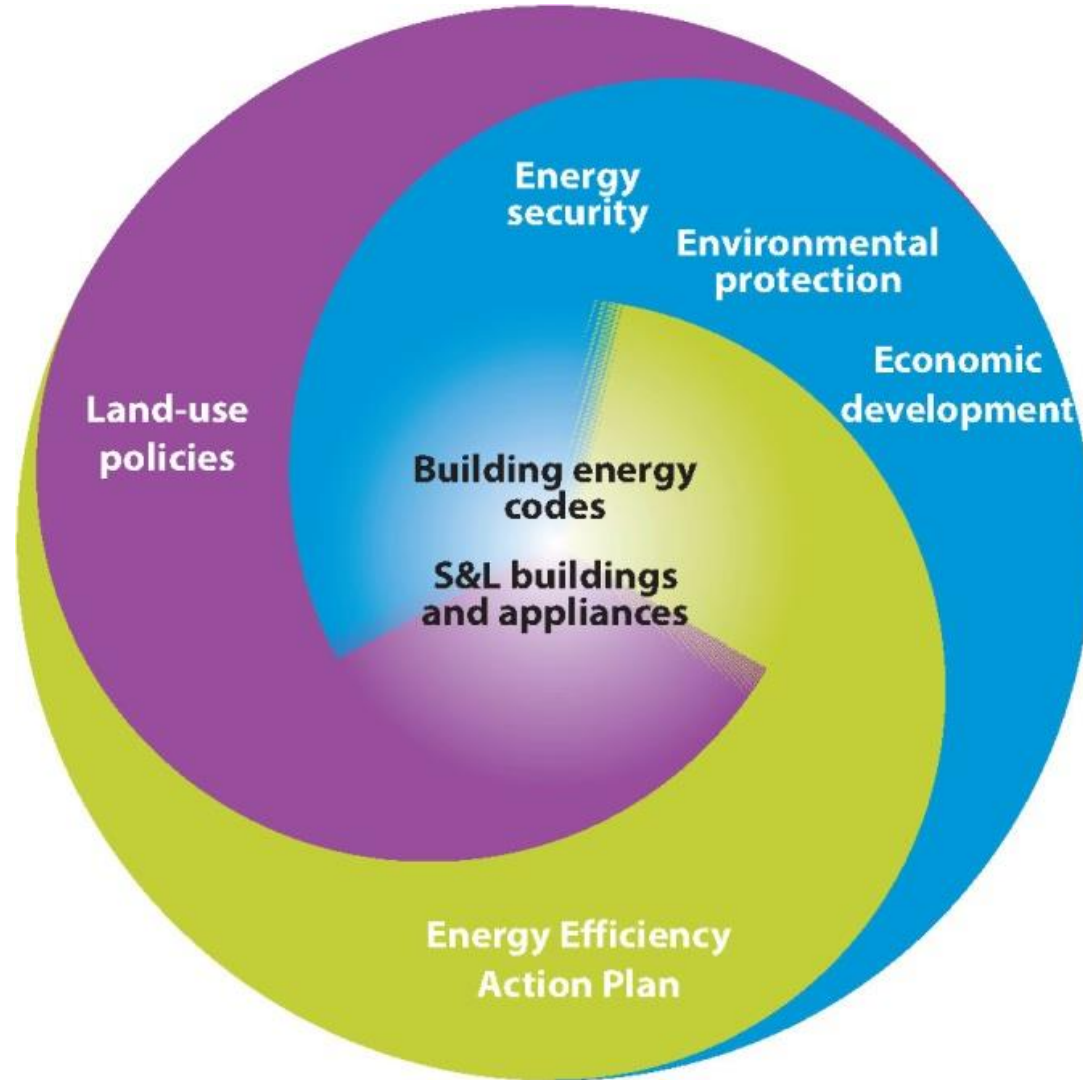


Empowered lives.
Resilient nations.





A policy package to increase the stringency of energy requirements and to avoid the lock-in effect



**Modernising
Building
Energy Codes**

*to Secure our
Global Energy
Future*



**UN
DP**

*Empowered lives.
Resilient nations.*

Policy Pathway



Getting it right from the start is crucial given the long lifespan of buildings

Modernising Building Energy Codes

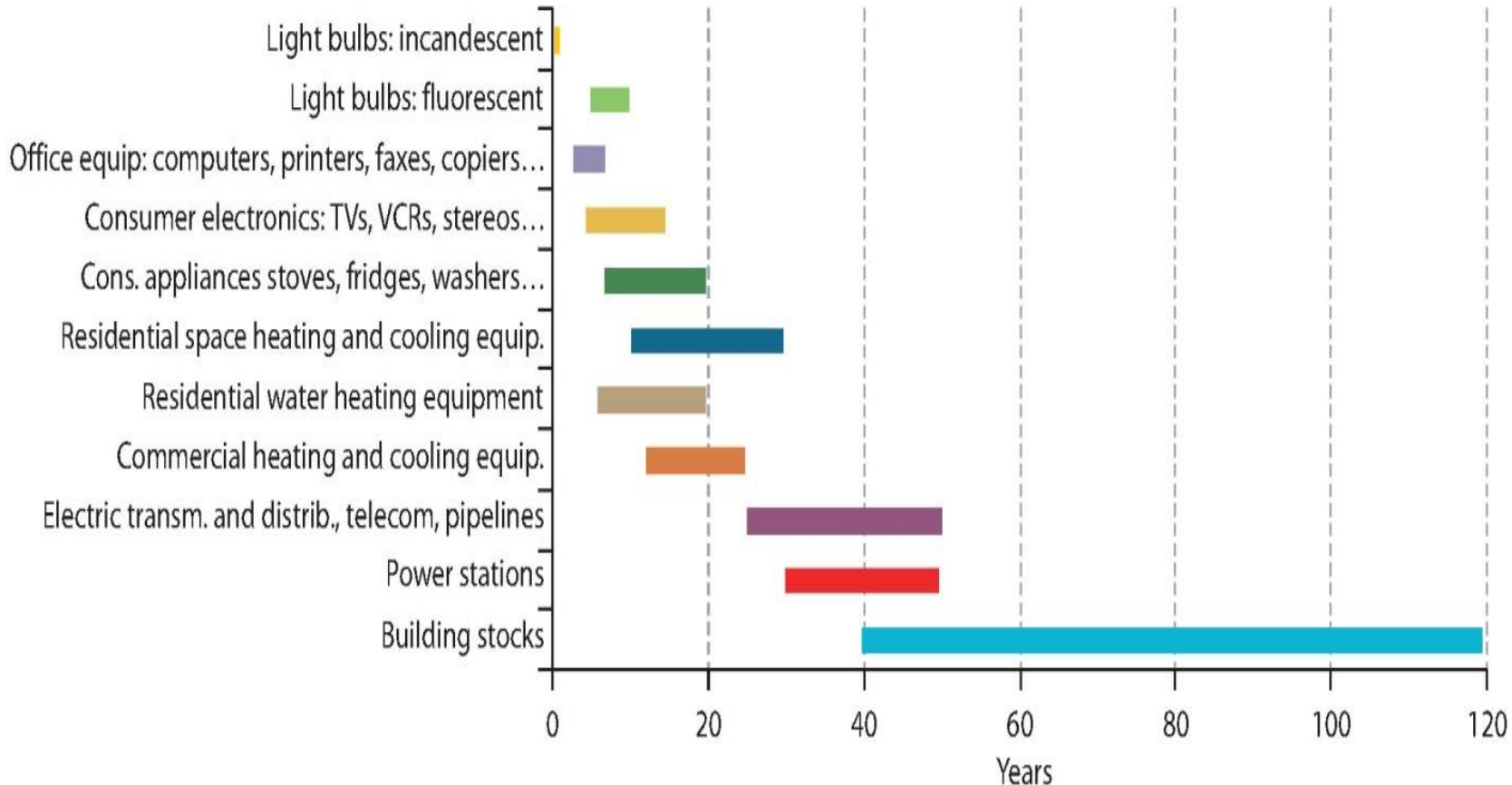
to Secure our Global Energy Future



UNDP

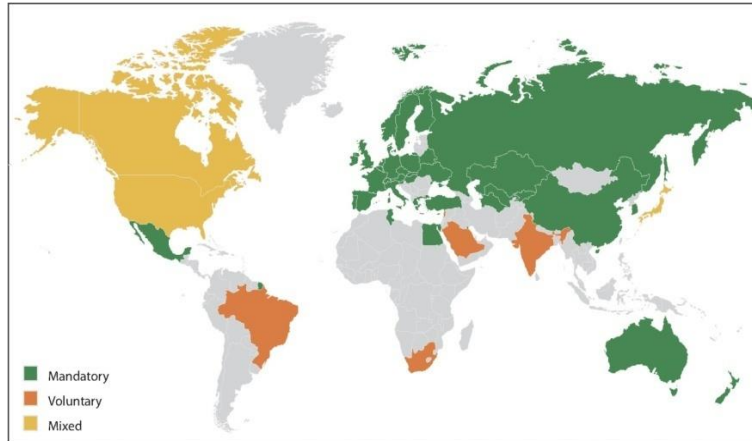
Empowered lives. Resilient nations.

© OECD/IEA/UNDP 2013

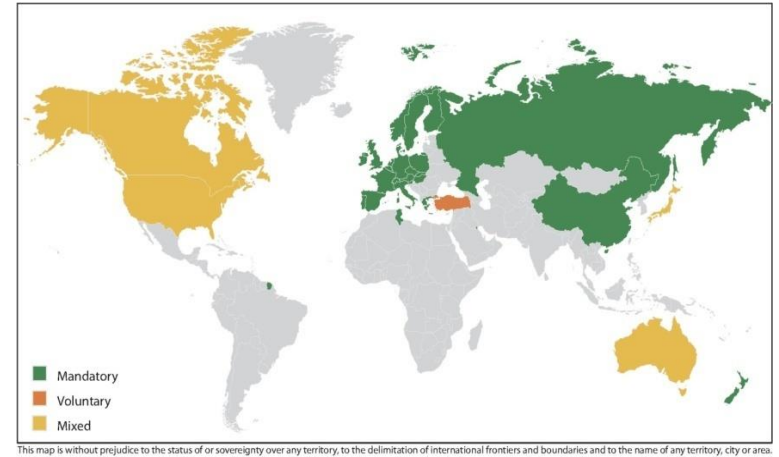


Policy Pathway

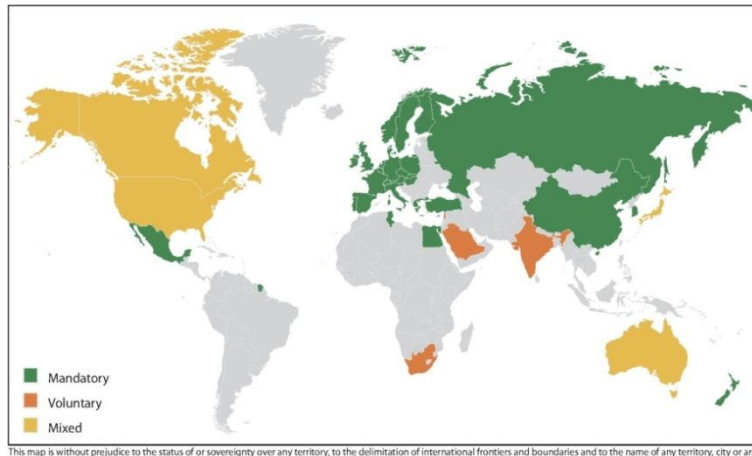
Progress needs to be made in the implementation of building energy codes



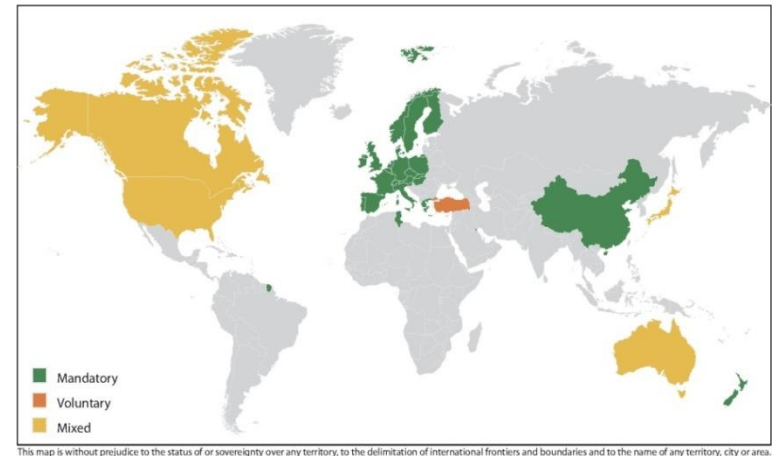
New residential buildings



Existing residential buildings



New non-residential buildings



Existing non-residential buildings

Modernising Building Energy Codes
to Secure our Global Energy Future



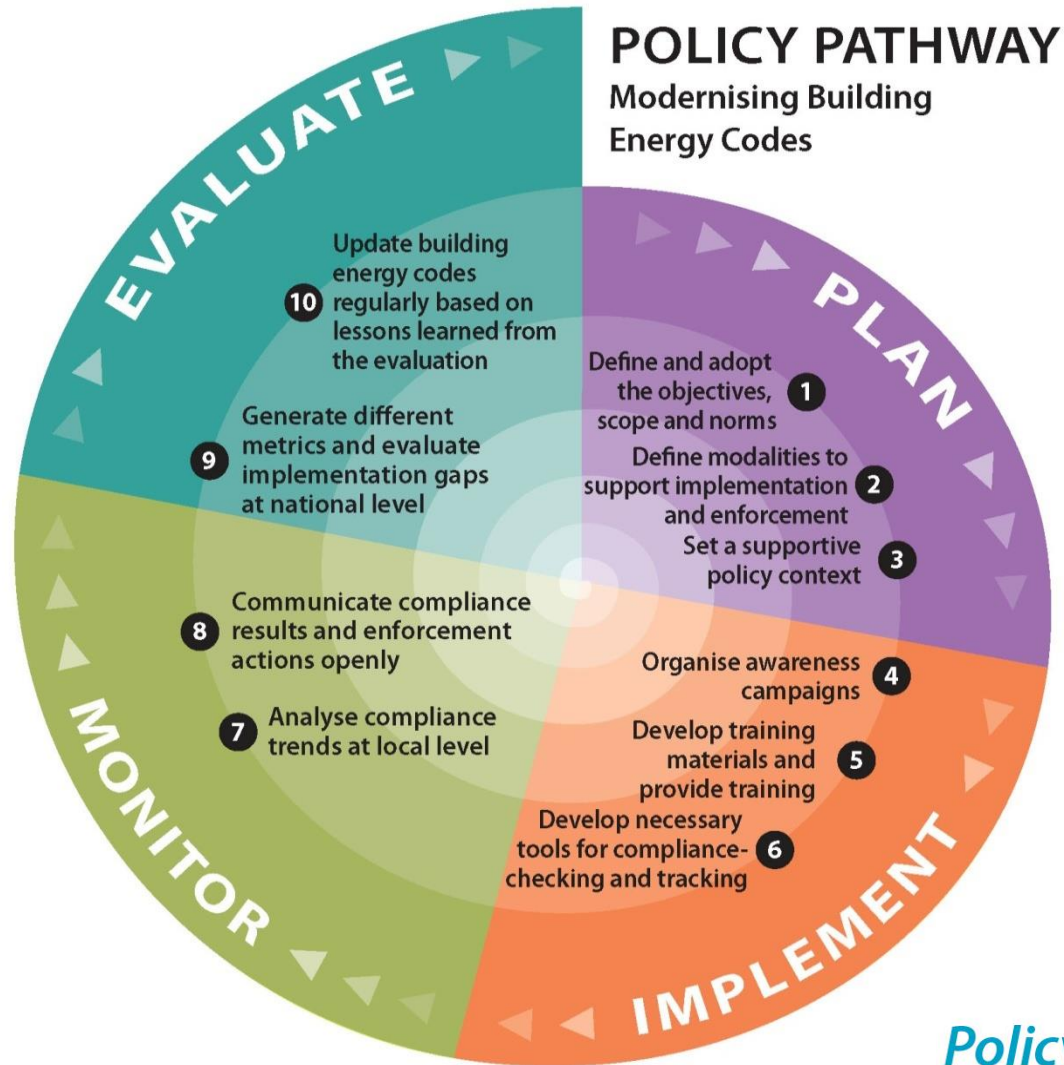
Effective building energy codes to secure our global energy future

Modernising Building Energy Codes

to Secure our Global Energy Future



Empowered lives. Resilient nations.

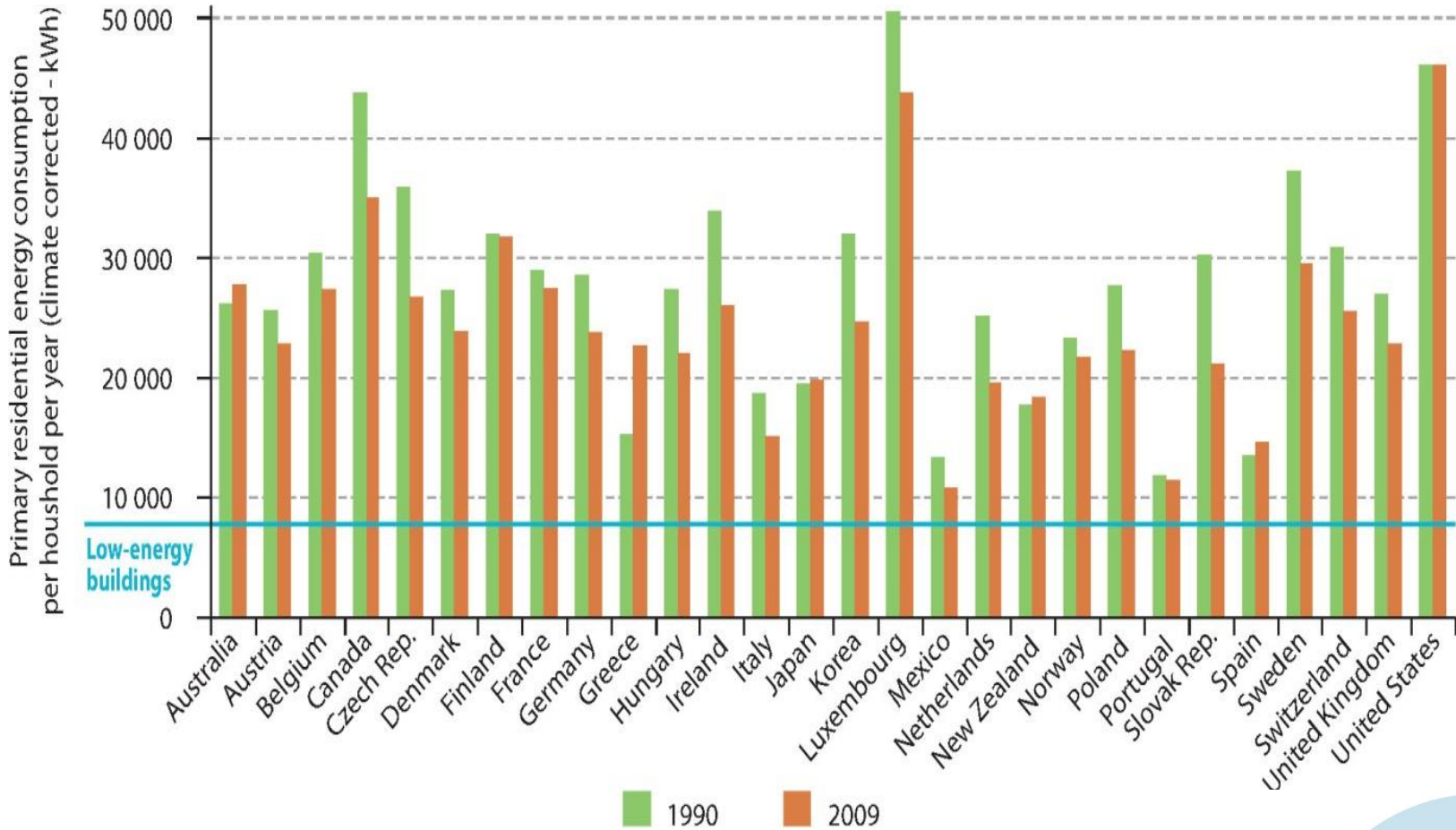


Policy Pathway

Challenges to effective building energy codes at the planning phase (1)

Modernising Building Energy Codes

to Secure our Global Energy Future



UN
DP

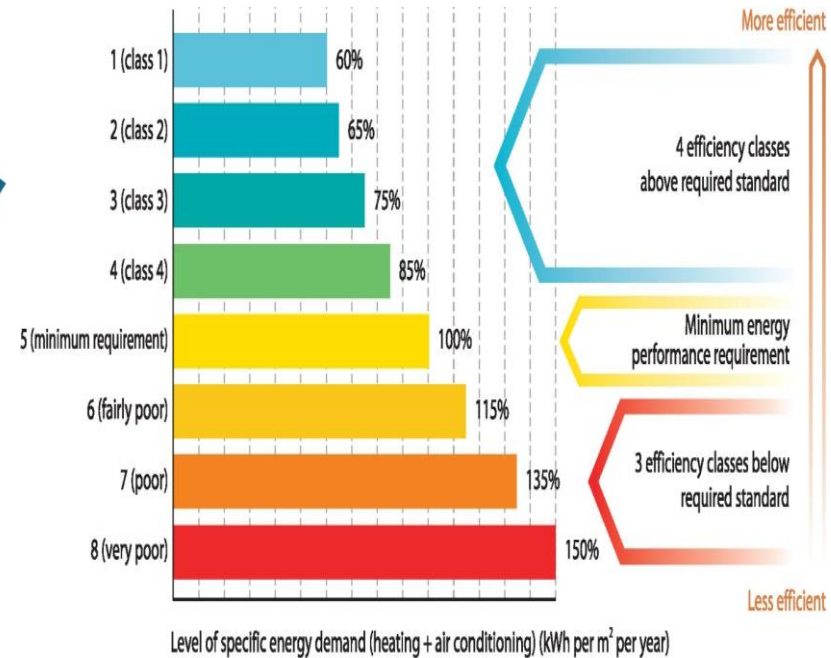
Empowered lives.
Resilient nations.

Challenges to effective building energy codes at the planning phase (2)

Modernising Building Energy Codes
to Secure our Global Energy Future



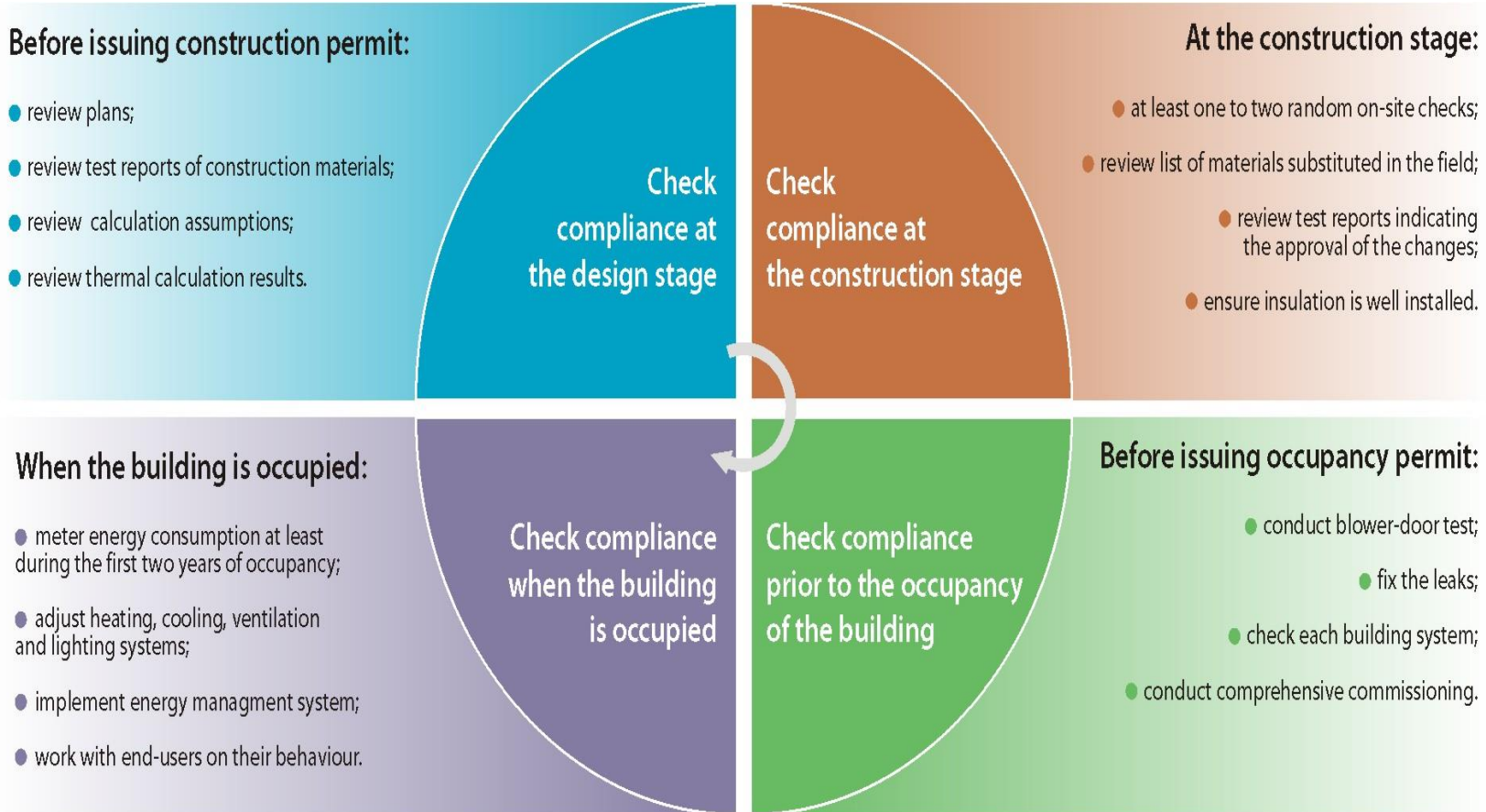
Fragmentation of the buildings sector



Alignment of energy requirements in different policy instruments

Policy Pathway

Challenges to effective building energy codes at the implementation phase



Modernising Building Energy Codes
to Secure our Global Energy Future



Demonstration projects to develop baselines and build technical capacity

Modernising
Building
Energy Codes

to Secure our
Global Energy
Future



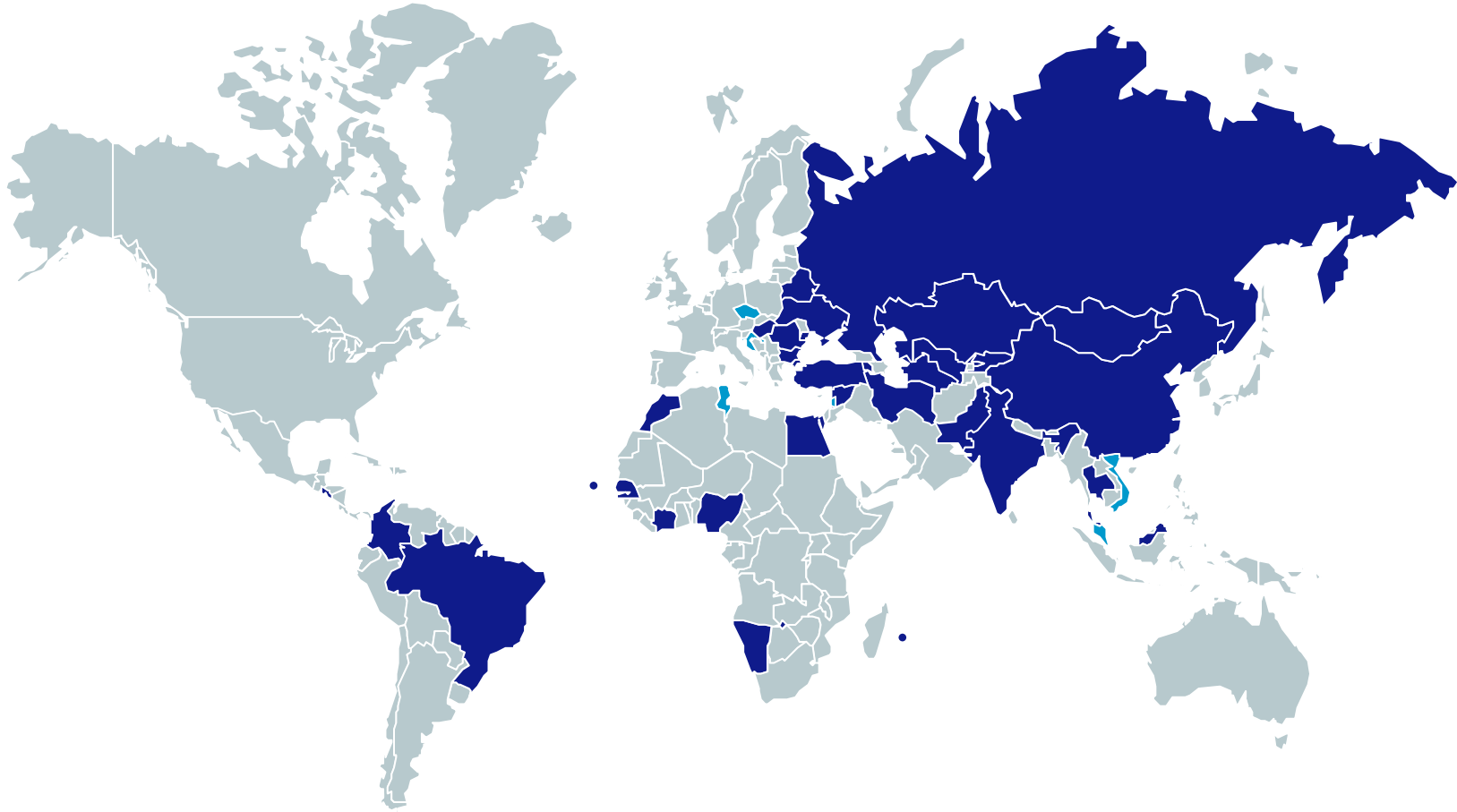
External insulation of walls of new buildings in Kyrgyzstan



Empowered lives.
Resilient nations.



More than 40 countries benefit from UNDP support for effective building energy codes



Modernising
Building
Energy Codes

to Secure our
Global Energy
Future



Empowered lives.
Resilient nations.

Policy Pathway



International collaboration to achieve an efficient buildings stock globally

- IEA Sustainable buildings Centre,
www.sustainablebuildingscentre.org
- Sample of UNDP/GEF projects: in Central Asia
www.beeca.net
- NAMAs (Nationally Appropriate Mitigation Actions)
<http://www.lowemissiondevelopment.org/knowledge-center/namas>
- The UN-SE4ALL (Sustainable Energy For All) initiative
www.sustainableenergyforall.org

Modernising
Building
Energy Codes

to Secure our
Global Energy
Future



Empowered lives.
Resilient nations.



The publication and the presentation are now available for free download at the following link

<http://www.iea.org/publications/freepublications/publication/name,42535,en.html>

Contact information:

- **International Energy Agency**
9, Rue de la Federation
75739 Paris Cedex 15, France
- **UNDP – GEF**
304 E 45th Street, FF-928
New York, NY 10017, USA

**Modernising
Building
Energy Codes**

*to Secure our
Global Energy
Future*



*Empowered lives.
Resilient nations.*