



4th International Low Carbon Expo in Zhenjiang

EU International Urban Cooperation (IUC)

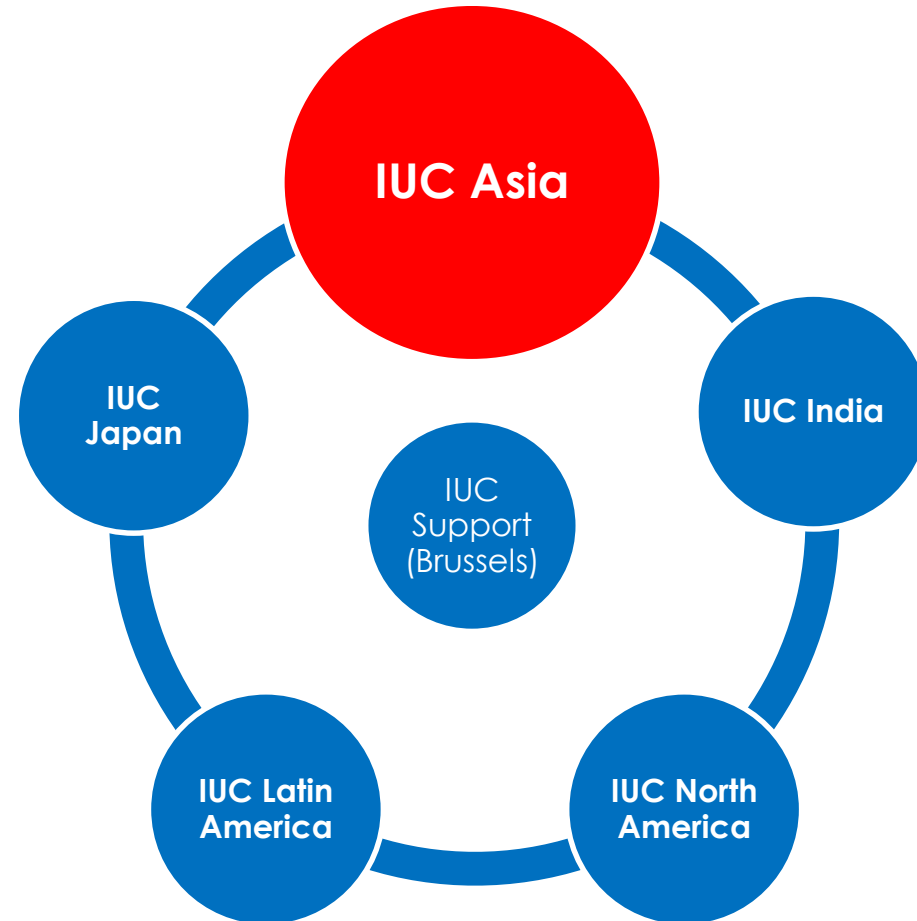
EU Clean Energy Package: Challenges – Policies

**Pablo Gándara, Team Leader IUC ASIA
Zhenjiang, 23 October 2019**

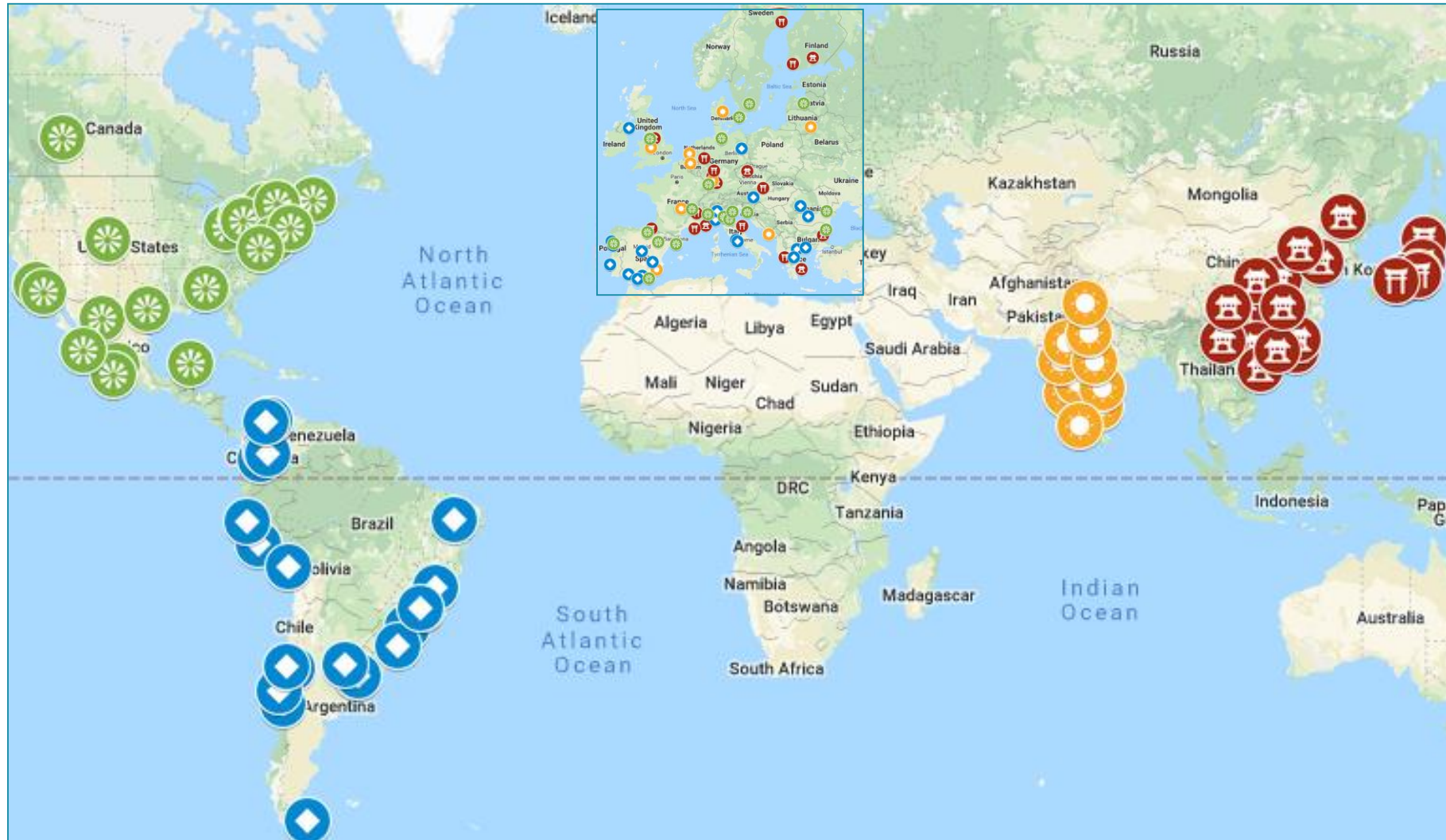
The EU's IUC Programme

Global EU Programme launched 2017 managed by the **Foreign Policy Instrument (FPI)**. It is working in two main areas:

- Component 1: CITY-TO-CITY COOPERATION ON SUSTAINABLE URBAN DEVELOPMENT
 - Component 2: SUPPORT CITIES IN ASIA ON CLIMATE CHANGE MITIGATION AND ADAPTATION
- Timeline: 2017 – 2020 (1st Phase)
 - Team based in Beijing and Indonesia



IUC – A GLOBAL PROGRAMME



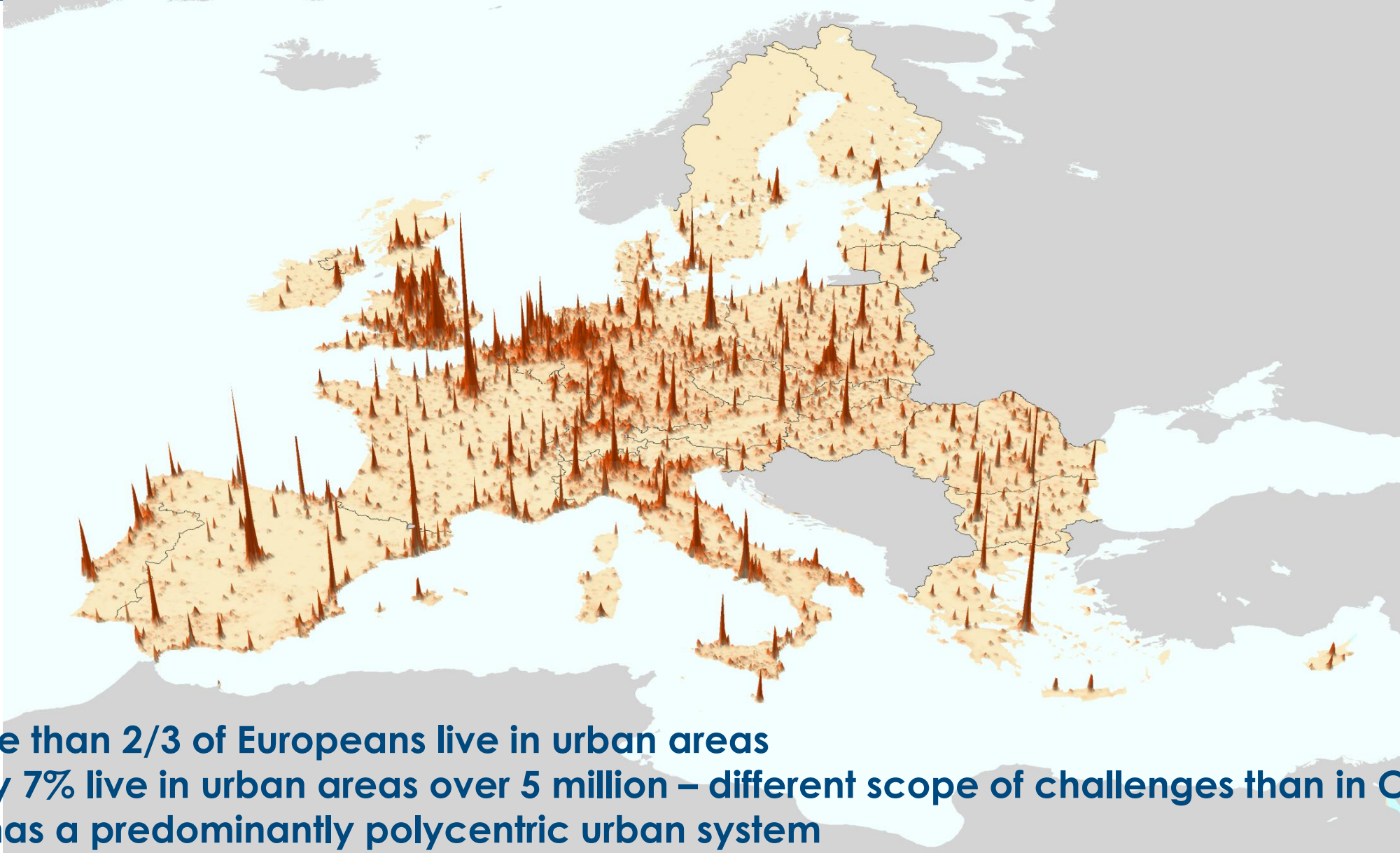
Over **150** cities already involved

• **18 Chinese cities**

Policy Exchange: EU-China Low Carbon Cities Partnership

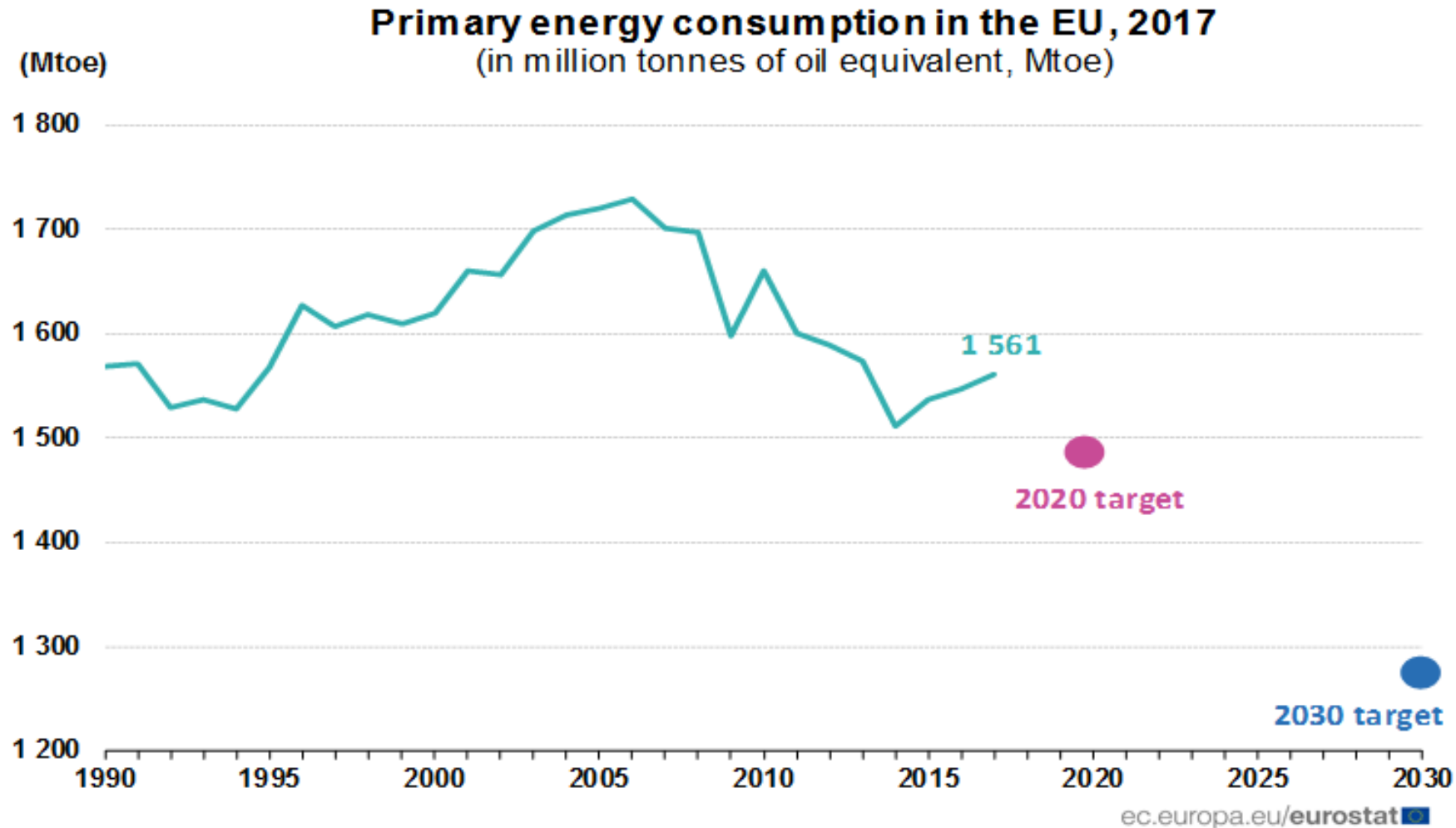


Europe: A Continent of Small & Medium Size Cities



- **More than 2/3 of Europeans live in urban areas**
- **Only 7% live in urban areas over 5 million – different scope of challenges than in China**
- **EU has a predominantly polycentric urban system**

Challenge - Energy consumption in EU cities is increasing



Energy production and use, including transport fuels, account for some 80% of the EU's greenhouse gas emissions, making energy consumption a key indicator in the fight against global warming

But EU the Takes Action: The *Clean Energy for All Europeans* Package (2019)

The law was passed in May 2019 and includes:

- **Energy efficiency first:** the revamped directive on energy efficiency sets a new, higher target of energy use for 2030 of **32.5%**, and the new Energy performance of buildings directive maximizes the **energy saving** potential of smarter and greener **buildings**.
- **More renewables:** an ambitious new target of at least **32%** in renewable energy by **2030** has been fixed, with specific provisions to foster public and private investment, in order for the EU to maintain its global leadership on renewables.
- **A better governance of the Energy Union:** A new energy rulebook under which each Member State drafts **National Energy and Climate Plans (NECPs)** for 2021-2030 setting out how to achieve their energy union targets, and in particular the 2030 targets on energy efficiency and renewable energy.

The Clean Energy for All Europeans Package (Part 2)

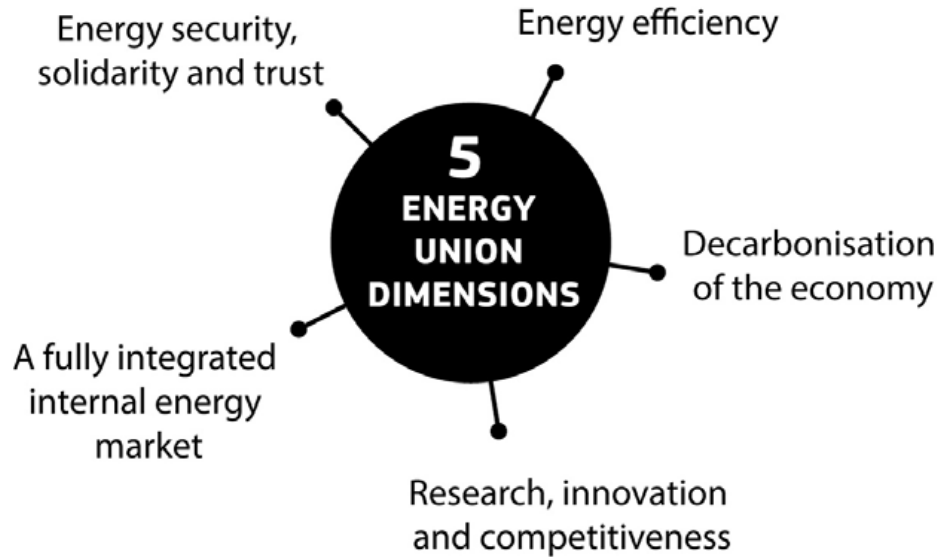
The law was passed in May 2019 and includes:

- **More rights for consumers:** the new rules make it easier for individuals to produce, store or sell their own energy, and strengthen consumer rights with more transparency on bills, and greater choice flexibility.
- **A smarter and more efficient electricity market:** the new laws will increase security of supply by helping integrate renewables into the grid and manage risks, and by improving cross-border cooperation.

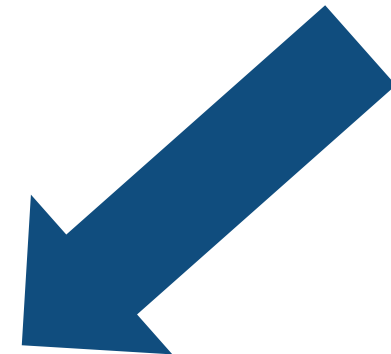
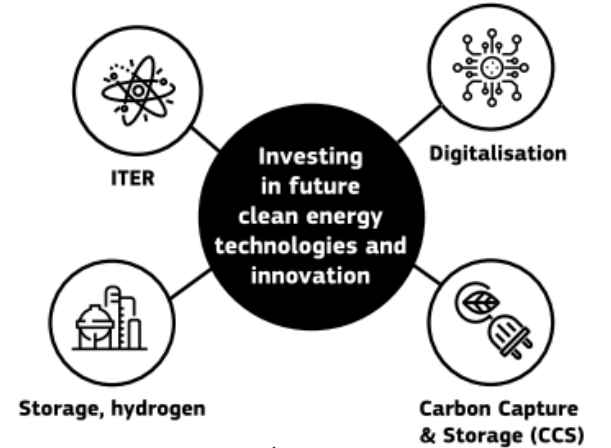
For more information :
ec.europa.eu/energy/
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[#CleanEnergyEU](https://twitter.com/Energy4Europe)



Clean Energy Package – Dimensions, Investments and Benefits

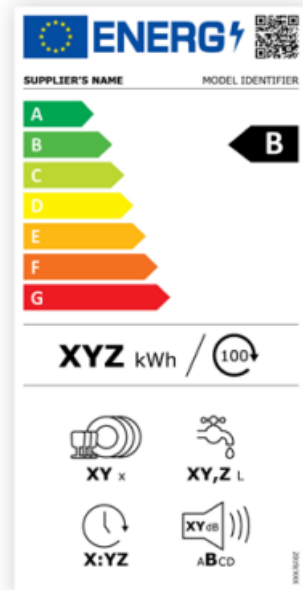


Investing in future clean energy technologies and innovation



But !

Consumers at the heart of the energy transition



€180 billion

Mobilising up to €180 billion of public and private funds per year until 2021



1% increase

Generating up to a 1% increase in economic growth over next decade



900,000 new jobs

Creating around 900,000 new jobs in Europe linked to the clean energy sector

Resilience: A holistic approach to policy supported by investment



European Union
European Regional
Development Fund



European Union
European
Social Fund



Challenge 1 - Phasing Out from Coal in the European Union

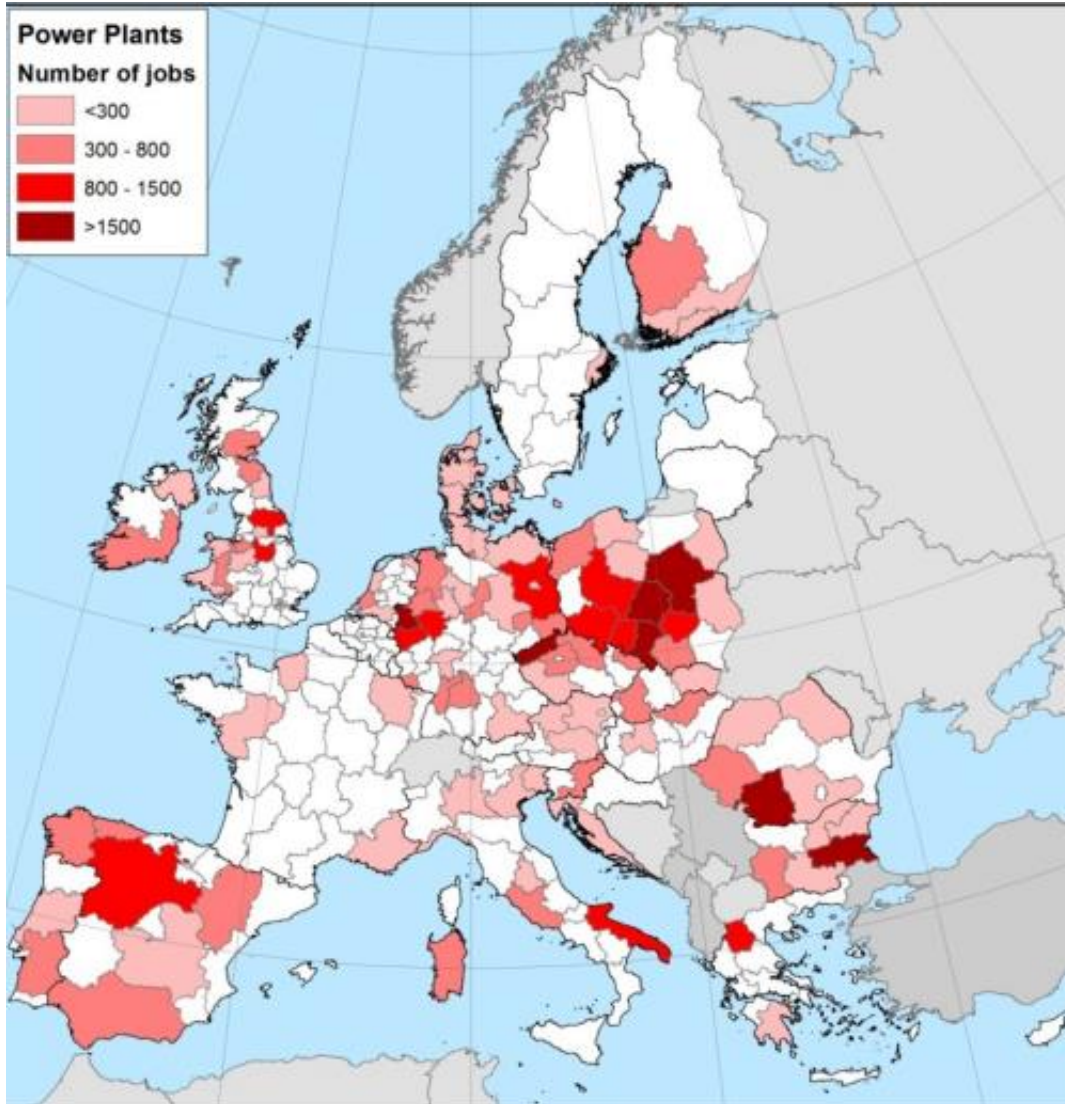
Coal accounts for nearly **a quarter of the total electricity** production in the EU (mainly in industrial processes such as steel production), but production and consumption of coal has been steadily declining over the past few decades.

Coal is currently mined in **41 regions** across **12 EU countries**, making it the most abundant fossil fuel in the EU and a significant source of economic activity.

Additionally, the coal sector provides **direct jobs** to an estimated **240,000 people**, including 180,000 in the mining of coal and lignite and 60,000 in coal- and lignite-fired power plants. By 2030, **160,000 jobs** will be lost (JRC, 2018). The total number of **indirect jobs** is up to around **215,000** (JRC, 2018).

The declining use of coal has led to mines **closing down** in a number of regions across Europe.

Jobs in coal-fired power plants 2018 (207 units, 150 GW output)

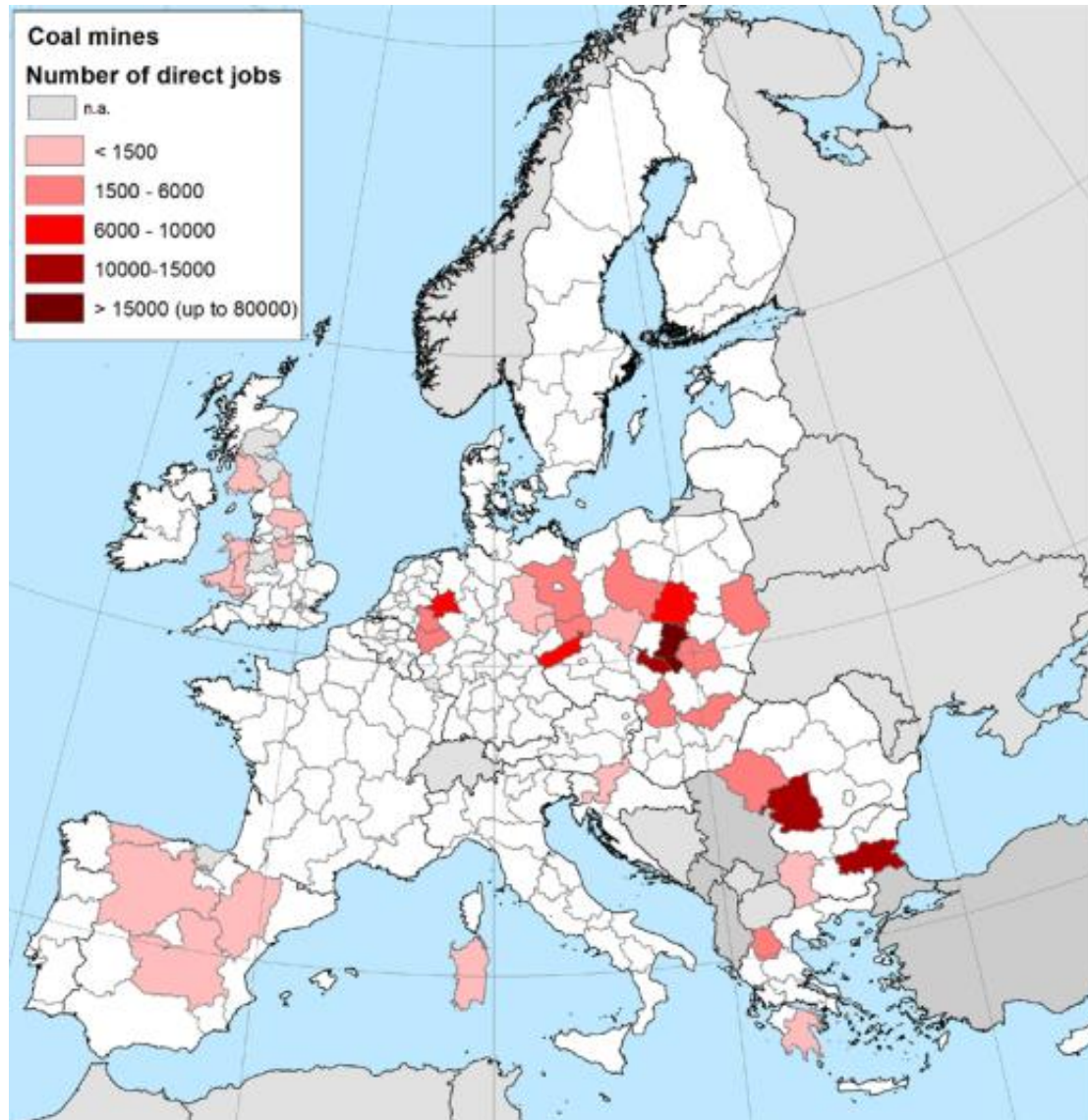


It is estimated that around **53,000** people work in **coal-fired power plants** in the EU (JRC, 2018).

The number of **jobs** per Member State ranges from just above 100 in Sweden to around 13,500 in Poland.

The most **modern** power plants exhibiting the highest efficiencies are located in Germany and the Netherlands. The **least efficient** power plants are located in eastern and south-eastern Europe.

Jobs and skills in coal mining 2018 (128 mines)



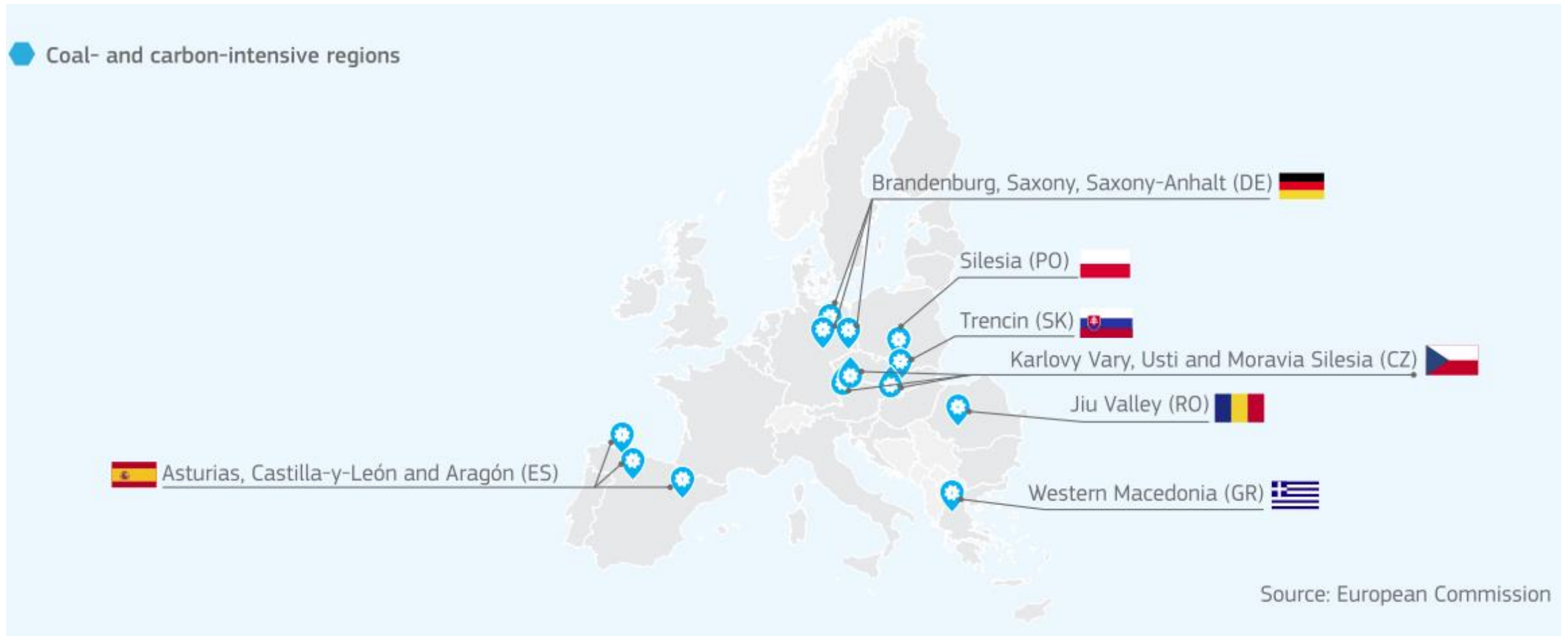
It is estimated that coal mining provides for **185,000** jobs across Europe (JRC, 2018).

Employment at national level ranges from around 350 in Italy to just below 100,000 in Poland.

Overall, **Poland** hosts the largest number of jobs on coal (about 112,600), followed by **Germany** (35,700), the **Czech Republic** (21,600) and **Romania** (18,600).

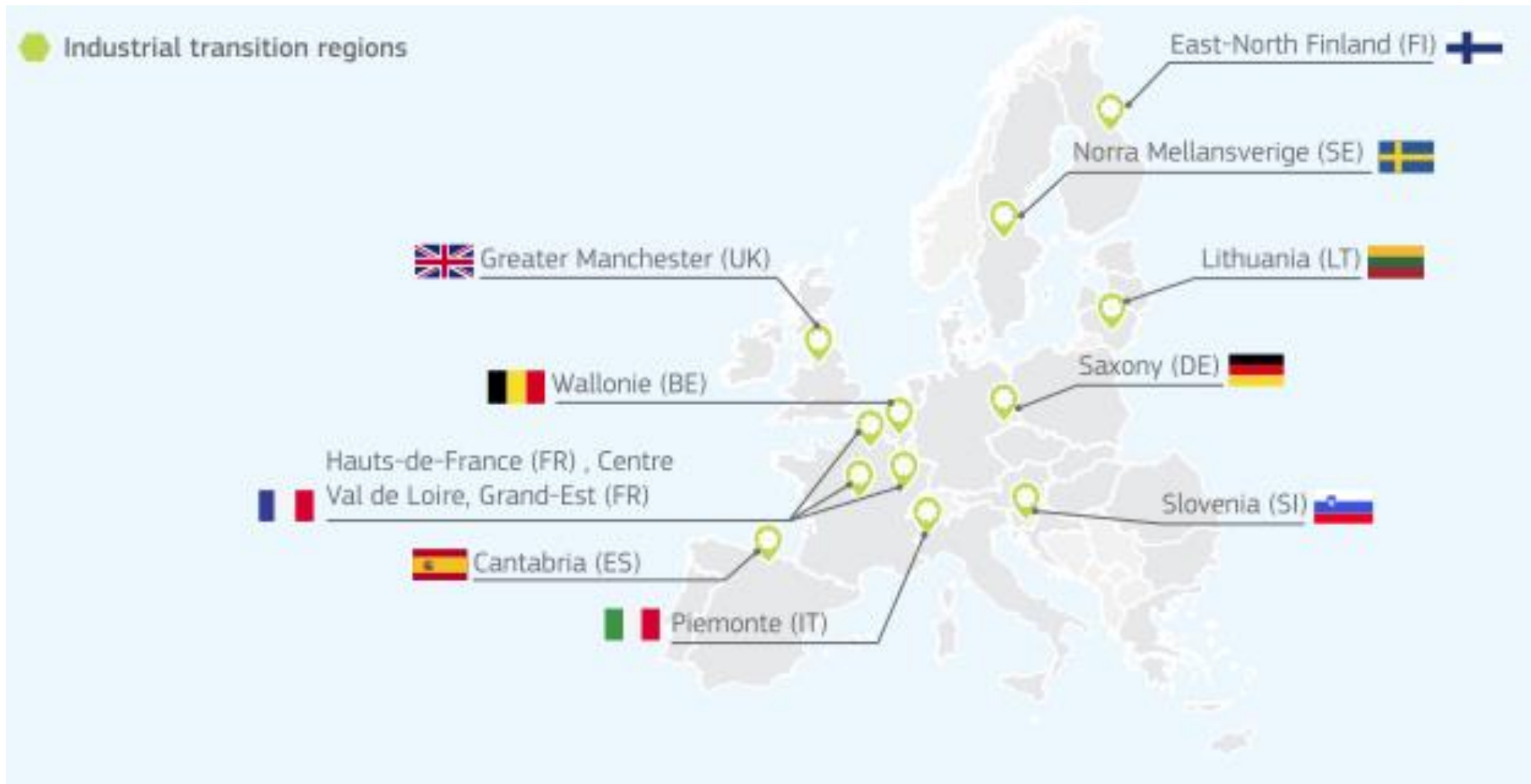
EU Pilot Programme 1: Coal and carbon-intensive regions

Delivering tailor-made assistance to 13 pilot regions in 7 Member States:



EU Pilot Programme 2: Industrial transition regions

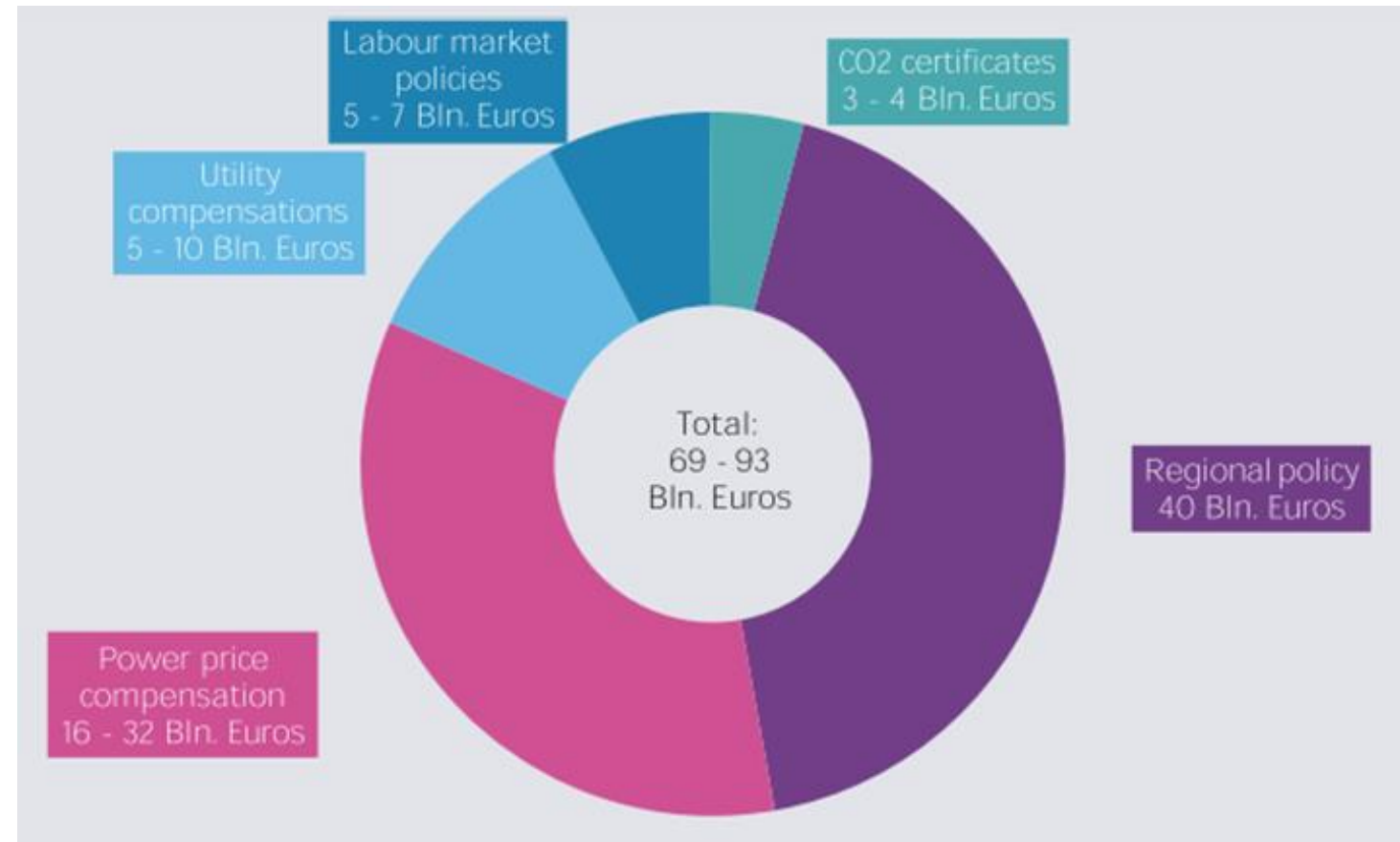
Delivering tailor-made assistance to 12 pilot regions in 10 Member States:



Best Practice – Germany's Phasing Out from Coal Production

The **German „Coal Commission“** (2019)

- Goal CO₂ savings of some **one billion tonnes** by **2038**.
- The Coal Compromise will ensure a **just transition** for coal regions and employees.
- The compromise guarantees that no worker will be left high and dry and that coal mining regions will have sufficient **time and resources** to adapt economically.
- To this end, the compromise foresees (at least) **2 billion euros** in federal spending per year (**40 billion in total**) – hidden costs probably much higher, i.e. **3.6 to 4.9 billion euros p.A.** (see next slide)



Costs* to the German federal budget for implementing the Commission's recommendations

(source: AGORA Analysis)

EU Best Practices – Energy Coaching in Ghent (Belgium)



85 companies in diverse sectors (automotive, agro-industry, cooling, steel construction, printing industry, R&D centers, ...)

Gedimat
BOUWMATERIALEN MÉT ADVIES
De Groote


HOUTBOERKE
Hout mét advies.

Coaching companies in energy management: What?

Energy Management Guidance route STEPS:

- Energy Audit
- Energy Action Plan (validated by management)
- Follow-up guidance in implementation
 - Intensity guidance depends on energy consumption
- Contribution company = 10%
 - **(max 700 euro)**
- Duration = 1 year



Coaching companies in energy management: results so far?

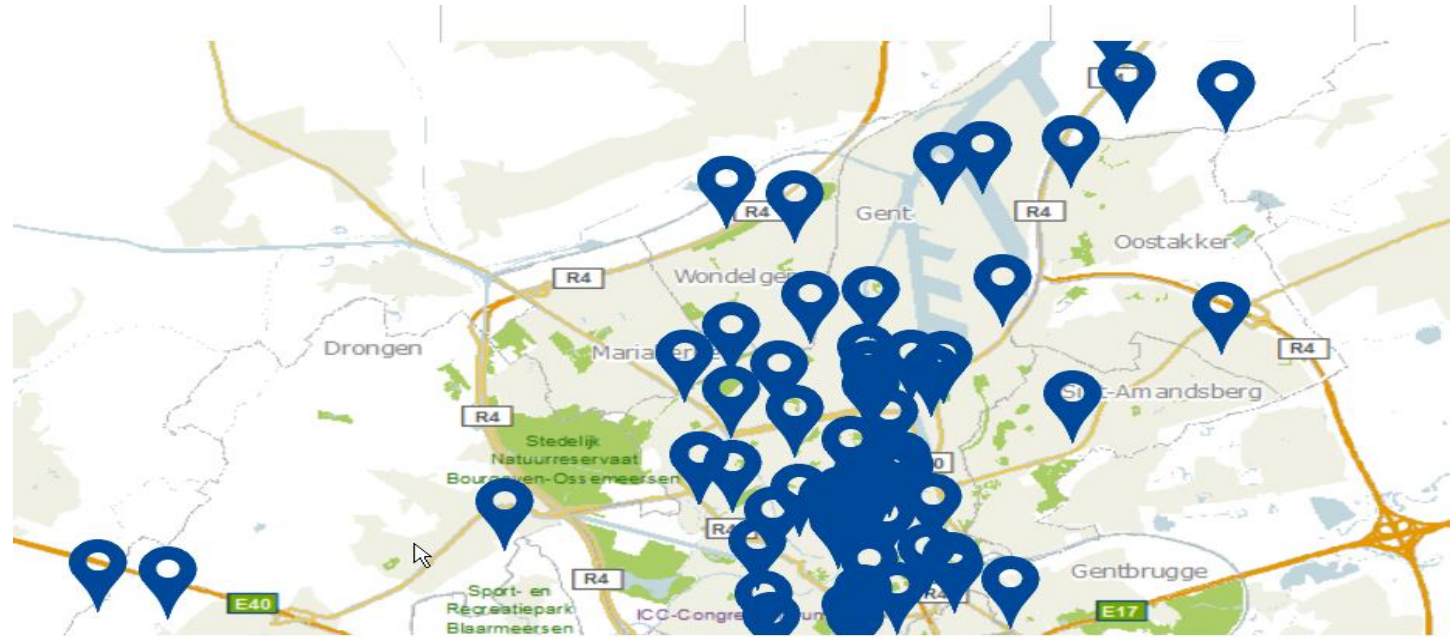
- 43 companies completed energy coaching
- Temporary assessment:
 - CO2-footprint ↓ 2.500 tons
 - Energy bill ↓ 600.000 euro yearly
- Customised guidance = added value
- Guidance after audit = time to persuade management


Frequently recurring measures:

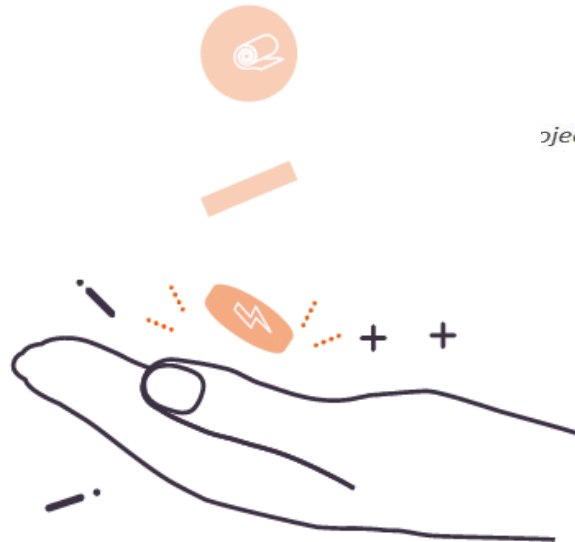
- Monitoring compressed air circuits, thermography;
- Insulation, relighting,
- Behaviour change for slumber consumption,
- Studies for investments in CHP, heat recovery, renewable energy,...

Energy grants after coaching

- Energy grants for energy efficiency measures
- Payback > 5 years
- Max. 10.000 euro per premise



objecten  Energiecoaching bedrijven  Klimaatprojecten  Klimaatscholen  Begeleiding bu



The EU-China Low carbon cities joint study

The **EU-China Study on Low Carbon Cities** was elaborated in **2018** by a team of European and Chinese experts as one of the policy exchange actions.

The document provides:..

● Analysis of Europe's and China's institutional **mechanisms and policy frameworks for low-carbon development**

Main challenges faced by both sides and the main sectors for intervention for local governments

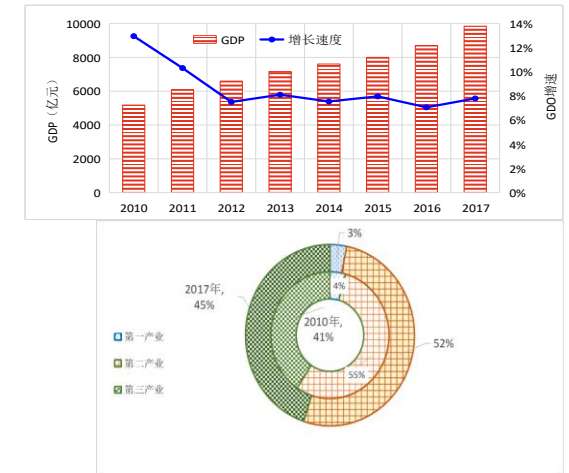
● The **relevant instruments available** for funding and implementing low carbon projects

● **Comparison of three categories of Chinese and European cities** facing similar challenges and assesses the multi-level governance arrangements.

Concrete policy recommendations for the EU-China Low Carbon Cities Partnership

Comparison of three categories of Chinese and EU cities

1. Comparison of Port Cities Ningbo in China and Hamburg and Rotterdam in Europe



2. Comparison of multi-level governance regions Barcelona and Liverpool in Europe are compared with Jiangsu Province



3. Comparison of cities facing industrial decline Wuhan and two EU cities, Essen and Bilbao





OCTOBER 21, 2019

Call to reduce plastic pollution at the China International Circular Economy Exhibition & China Circular Economy Development Forum in Nanjing, China

IUC-Asia project partners are showing a strong presence at the China International Circular



OCTOBER 17, 2019

IUC-Asia engaging with key urban development experts at the Seventh Asia-Pacific Urban Forum (APUF-7), Penang, Malaysia

The IUC ASIA Programme participated at the Seventh Asia-Pacific Urban Forum (APUF-7), held in Penang, Malaysia, from 15-17 October 2019. The aim of the APUF-7 is to mobilize partners from across the region to focus on



OCTOBER 17, 2019

IUC-Asia supporting the Asia-Pacific Forum on Green Low-Carbon Development 2019, Changsha, PR China

IUC-Asia is also present with European and Chinese delegations at the Asia-Pacific Forum on Green Low-Carbon Development 2019, held in Changsha, Hunan Province, PR China, from 16-18 October 2019 (<http://en.aplctsummit.com/>). The Forum