

European Union Politics

SESSION 9: **ENERGY AND ENVIRONMENT**

EU Energy Policy – a “mixed bag”

- ▶ Energy ‘rooted’ in the founding treaties (European **Coal** and Steel Community; Eur**Atom**) – yet policy never really developed into a cohesive “common” policy

→ internal **market**, **environment**, agriculture, **foreign policy**

- ▶ Mix of national **intergovernmental** / **supranational** policy-making
- ▶ Spread among several Commission **DGs** and **agencies**

- ▶ **Specifics of energy sectors:**

- different **national mixes**: gas, oil, coal, nuclear, renewable sources (+ infrastructure)
- differing **ownership** structure: national champions vs. private companies
- **national energy preferences**: green/atomic energy
- external resources dependence and **geographic limitations**



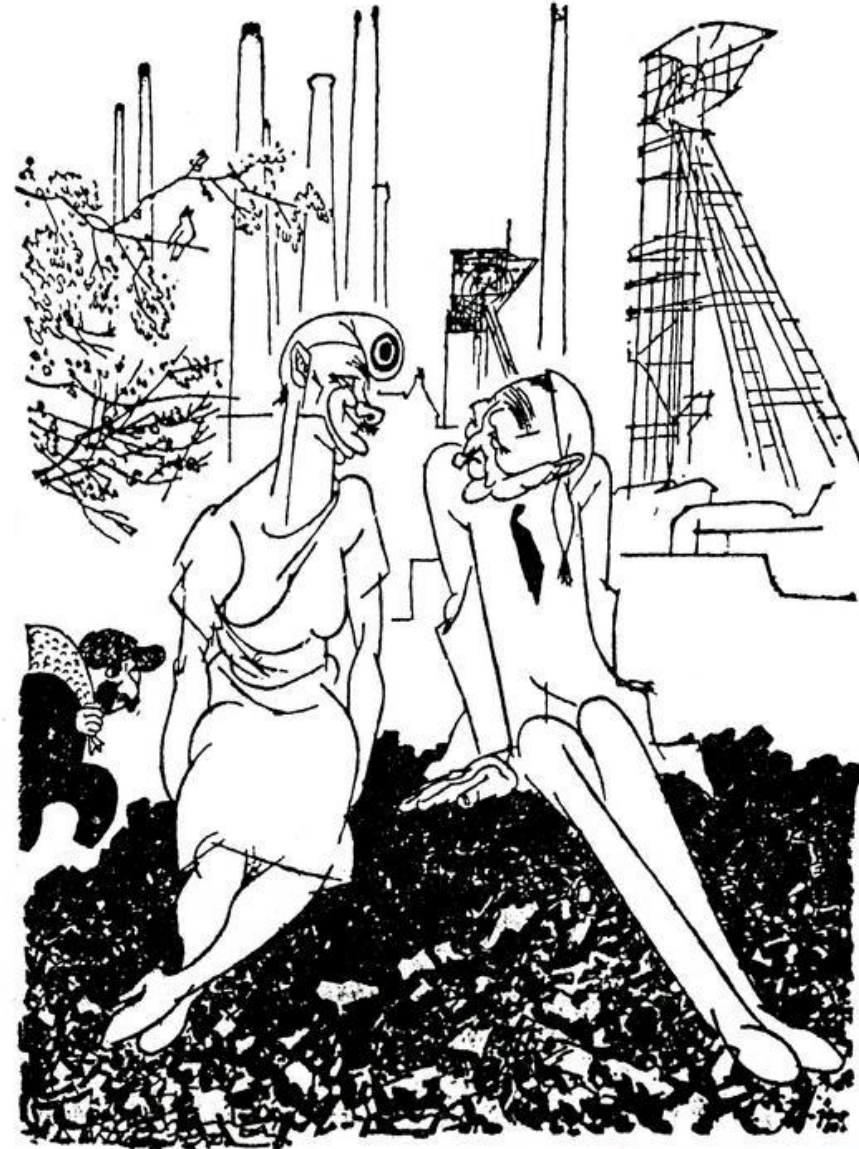
Early integration 1950s

Put “war-making” industries under common supervision

- **Coal** and steel industry
- **Atomic** (nuclear) energy

OIL CRISES in the 1970s saw the EC unable to respond

→ International Energy Agency...



Liebe und Kohle

Zeichnung: M. Szweduk [Copyright „DIE WELT“]

Development of EU energy market

► 1990s together **with the internal market**

- why should energy markets NOT be **liberalized**?

► 2000s **persisting push to liberalize**

- Attempts to “unbundle” owners of electricity grids from energy producers
- Internal market **antitrust/competition** policies to break up energy monopolies
- **Consumer** complaints about cartel energy prices and market dominance
- **Energy security(!)** comes into focus after 2004 enlargement
- **Global warming and climate change** concerns



Lisbon treaty framework

- Energy is a “**shared competence**” between the EU and MS (not much that the MS have actually **conferred** onto the EU)

*In the context of the establishment and **functioning of the internal market** and with regard for the need to **preserve and improve the environment**, Union policy on energy shall aim, **in a spirit of solidarity** between Member States, to:*

*(a) ensure the functioning of the **energy market**;*

*(b) ensure **security of energy supply** in the Union;*

*(c) promote energy **efficiency** and energy saving and the development of **new and renewable forms of energy**; and*

*(d) promote the **interconnection** of energy networks.*

[...]

*Such measures shall **not affect a Member State's right to determine** the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply...*

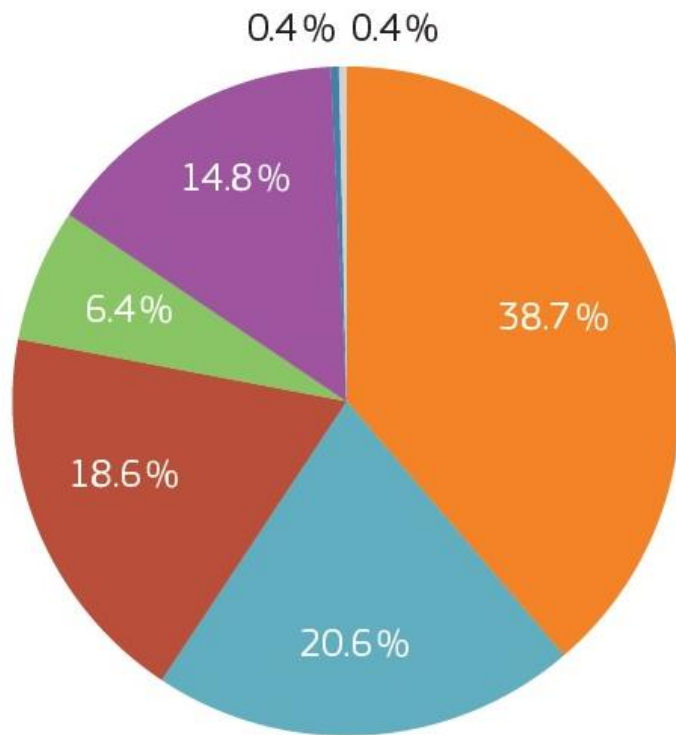
2022

TOTAL PRIMARY PRODUCTS 2022: 1 355.4 Mtoe

(Total Primary and secondary products 2022: 1 354.2 Mtoe)

TOTAL PRIMARY PRODUCTS 2000: 1 497.4 Mtoe

(Total Primary and secondary products 2000: 1 498.2 Mtoe)



Oil and petroleum products

Natural gas

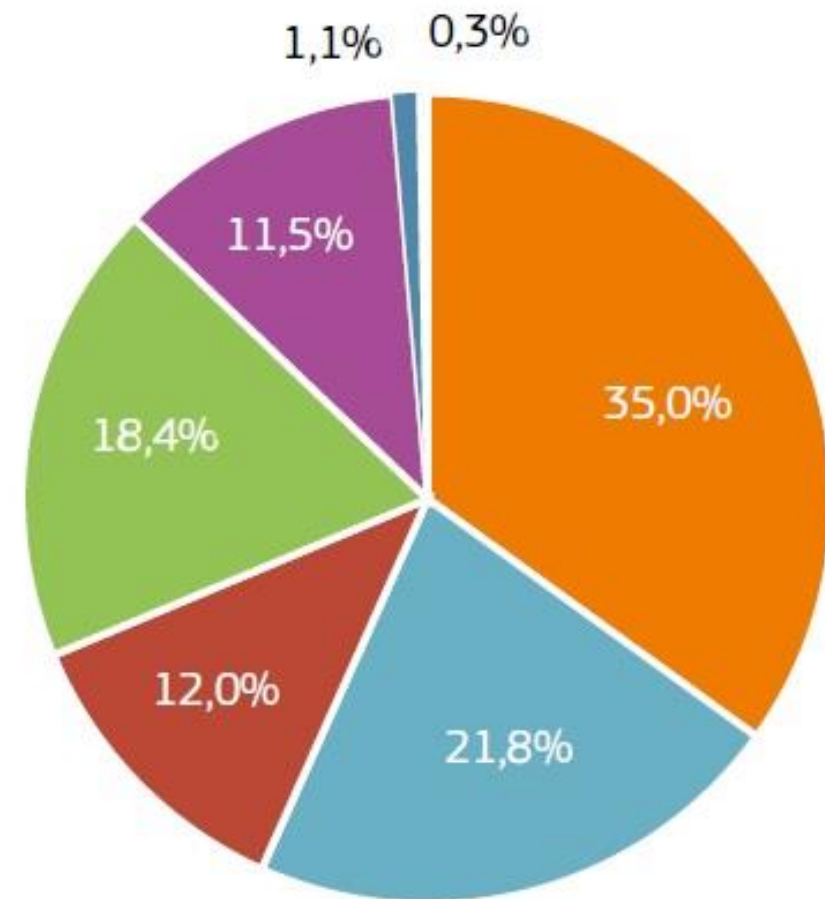
Solid fossil fuels

Renewables and biofuels

Nuclear

Waste, non-renewable

Others*



Different national energy preferences

- ▶ Different national “energy mixes”
- ✓ Based on **availability of own resources** (own coal mines, oil fields, offshore wind, mountain water, geothermal, total average sunny days)
- ✓ Based on **import dependence** (suppliers, infrastructure)
- ✓ **State majority stakeholders** energy champions (Gaz de France, ČEZ) X **private companies** (German RWE, E.ON)
- ✓ **Nuclear** energy (France, CR, SWE) X refuse nuclear energy (Germany, Austria)
- ✓ **Green movements** (Austria, Germany, Denmark, Finland) vs. **traditional** energy sources (Poland, Hungary)
- ✓ **Pro and anti-integration states**



RWE



Countries' energy mixes

Oil and Petroleum Products

Natural Gas

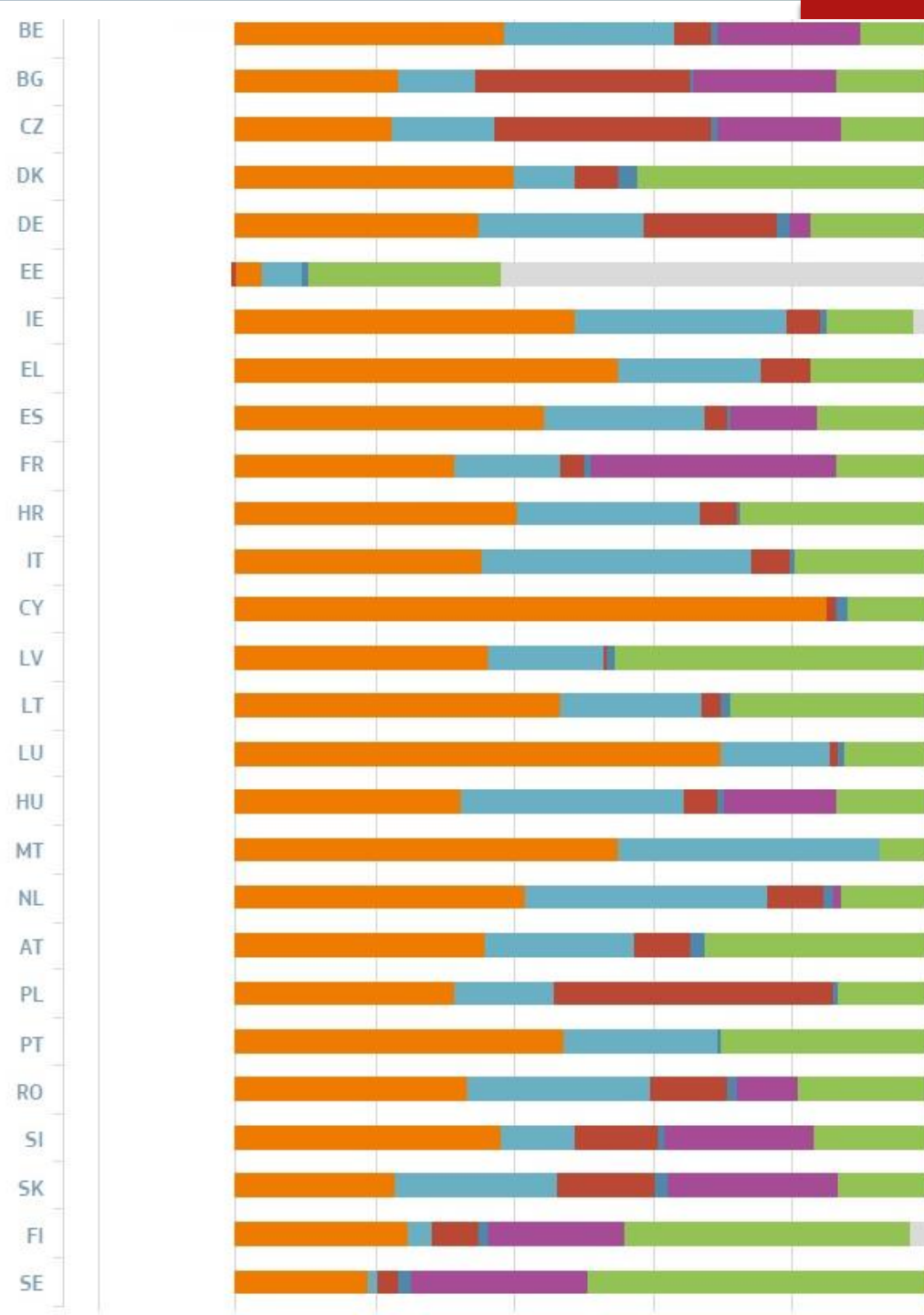
Solid Fossil Fuels

Renewables and Biofuels

Nuclear

Waste, Non-Renewable

Others*



EU energy market liberalization

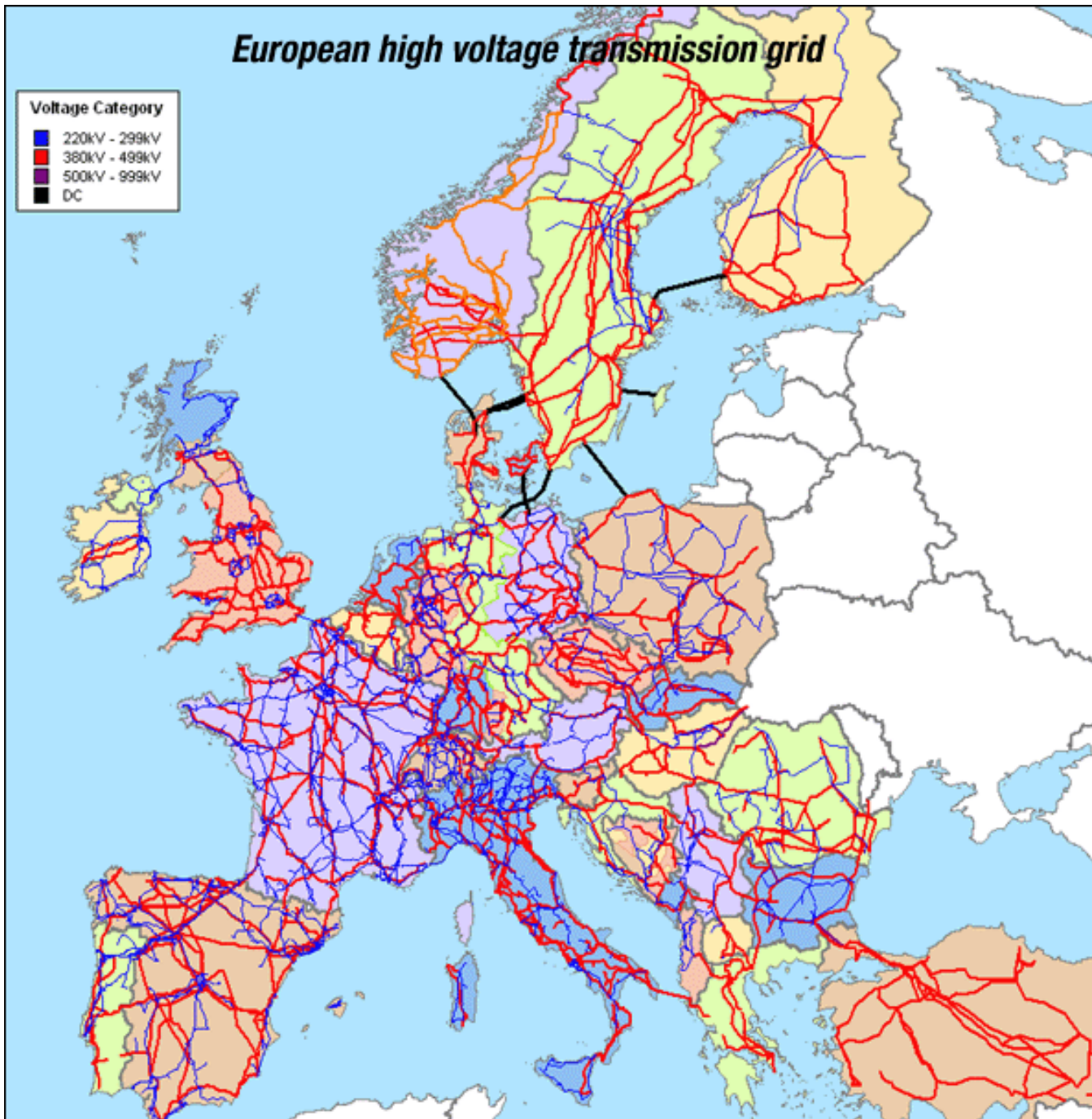


- ▶ 3 packages from mid-1990s to 2007/9
- ▶ Commission: competition in energy market would help **secure “fluid” energy supply** (infrastructure needed), would drive **prices down** (consumer complaints), and boost research and investment in **green/renewable energy**
- ▶ **Breaking links** between energy **producers** and **transmission networks** (grid) ...**ownership unbundling** ...so that any energy producer could use the infrastructure grid (just like different company trucks use a highway)
- ▶ **Imperfect implementation**: some states keep on subsidizing (jobs, infrastructure)

European high voltage transmission grid

Voltage Category

■	220kV - 299kV
■	380kV - 499kV
■	500kV - 999kV
■	DC



Energy integration

NEGATIVE INTEGRATION

(removing barriers)

► Tools of the internal market

Antitrust investigation: allow access to energy grids (infrastructure) to other energy producers

Competitive public procurement, misuse of supplier monopolies



Energy integration

POSITIVE INTEGRATION (regulating)

- ▶ Secondary law: directives, Energy Union project
- ✓ **European stakeholder networks** (producers, transmitters, social committee, consumers)
- ✓ Commission DGs: Energy, Transport, Market
- ✓ Lobbyist expertise

X

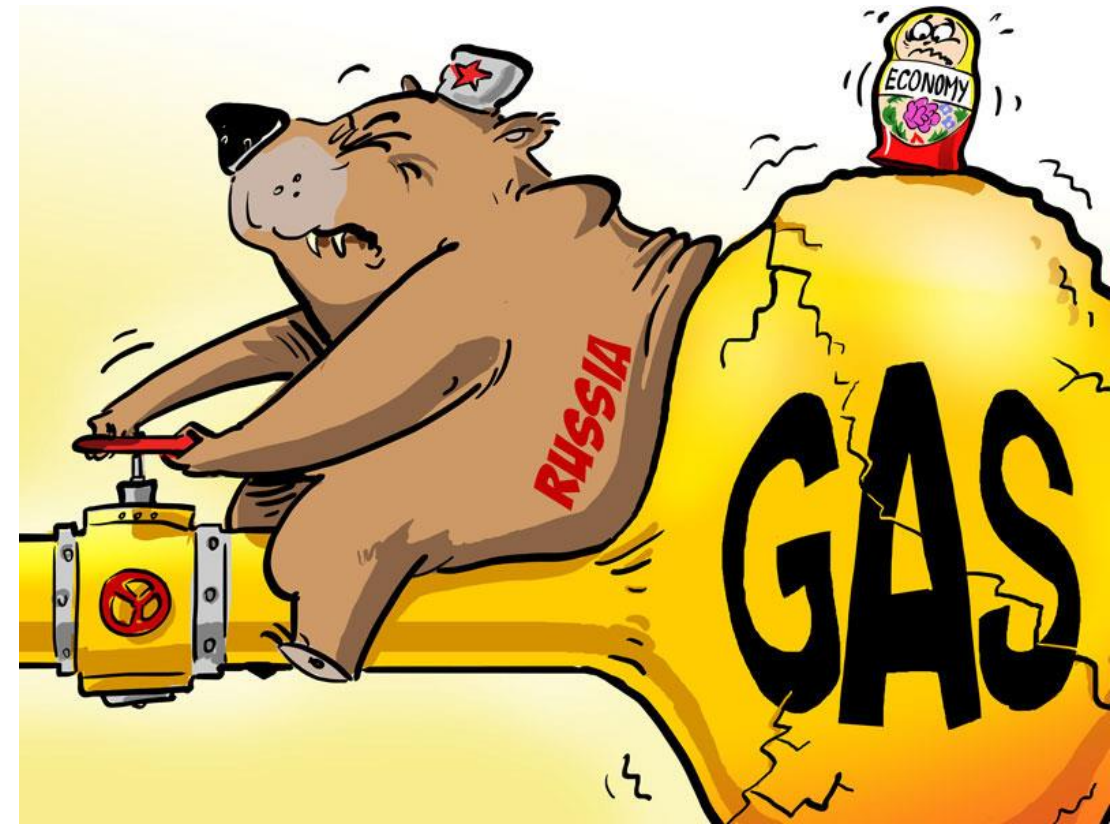
- ✓ **Not much will to create a common European regulator**
- ✓ **Bottom up subsidies for renewables are outpacing top down liberalization**

Energy Security

- ▶ 1970s - **Middle East** instability of Yom Kippur War and Iranian Revolution
- ▶ 2010s - CEE historical energy ties to **Russia**
- Specificity of **natural gas** as a source of energy (infrastructure dependent)

How to stay energy secure (geographic limitations), how to help Ukraine (reverse flow), how to **diminish Russian influence** in Europe (*Nordstream/Gazprom vs US shale gas*)?!?

Lisbon gives the EU right to represent MS in energy deals (just like trade) **BUT** this does not exclude states from bi-lateral sweetheart deals with Russia



1.2.4 Energy Import Dependency

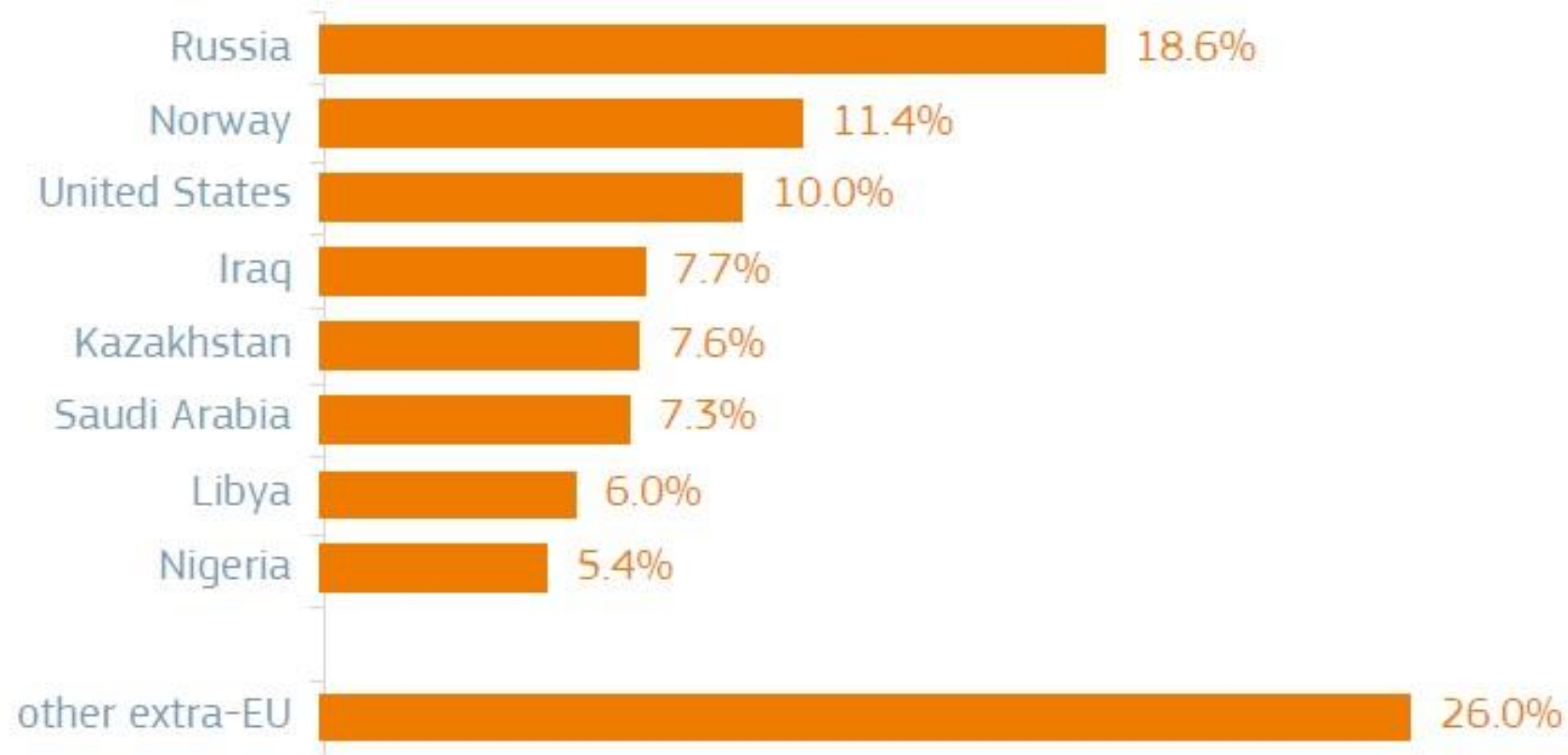
BY FUEL – (%)

	2000	2010	2019	2020	2021	2022
Total	57.8%	57.4%	62.3%	59.1%	57.1%	64.4%
Solid fossil fuels	29.8%	38.2%	43.3%	35.8%	37.3%	45.8%
of which Hard Coal	43.2%	57.7%	68.0%	57.4%	59.2%	74.4%
Oil and petroleum products	99.8%	102.1%	105.0%	105.3%	99.7%	106.3%
of which Crude and NGL	92.5%	94.4%	96.6%	96.1%	95.1%	97.6%
Natural Gas	65.7%	67.8%	89.7%	83.6%	83.7%	97.6%

EU OIL dependence

EU27_2020 IMPORTS* OF CRUDE OIL AND NGL - 2022

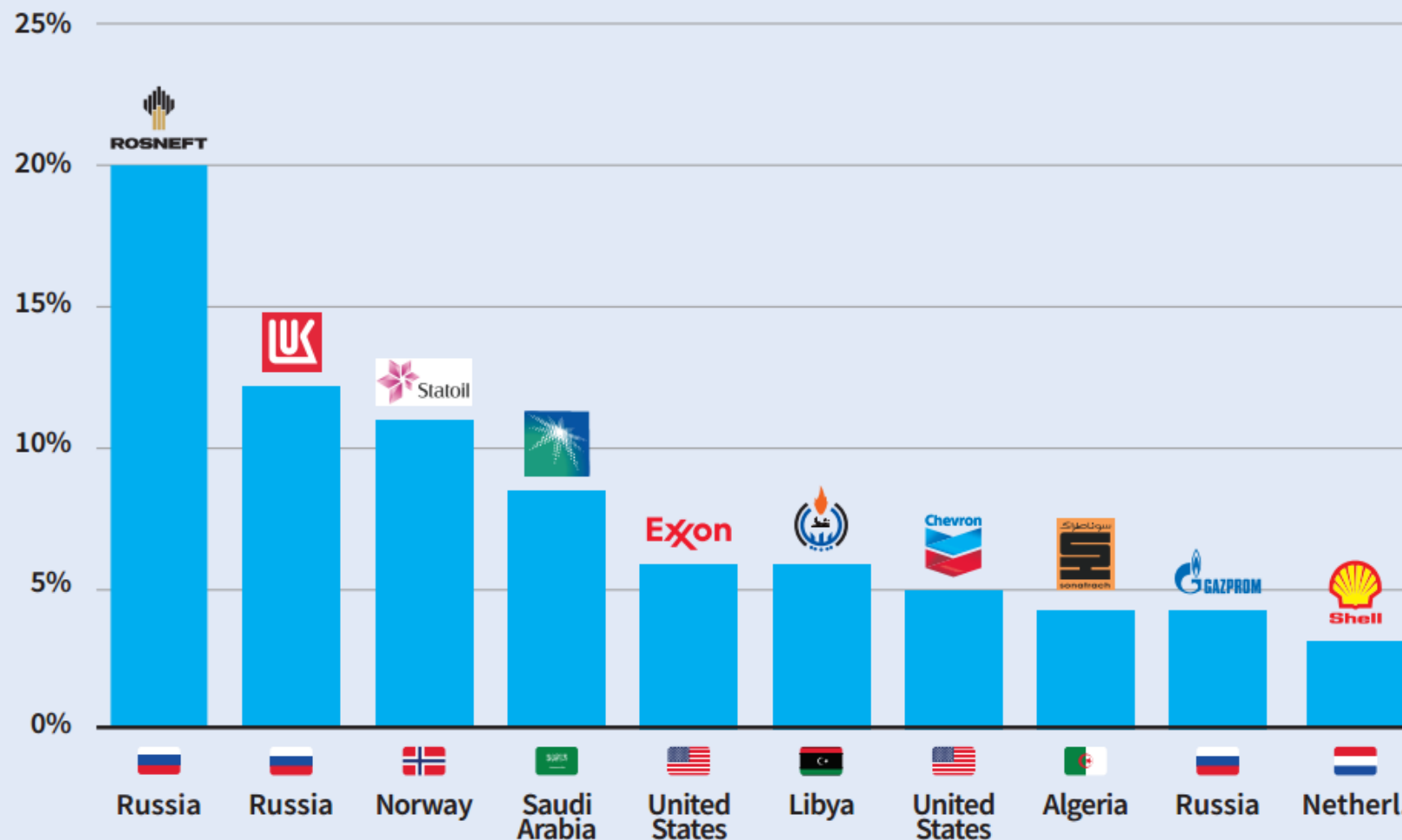
Total extra-EU = 483 902.4 kton



EU Oil dependence

Who supplies Europe's oil?

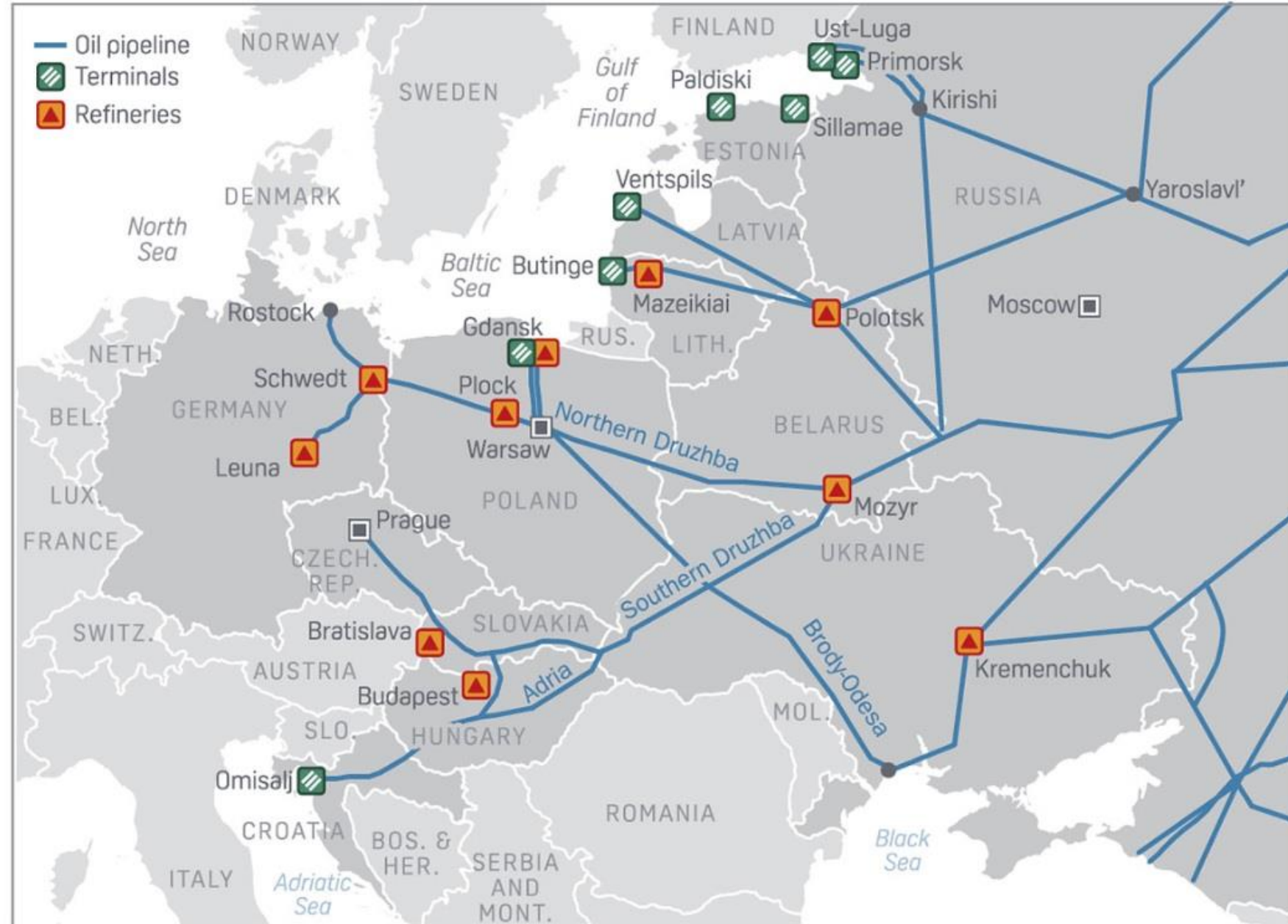
8 of the top 10 oil suppliers are non-European companies



Central European OIL pipelines

Uneasy interdependence

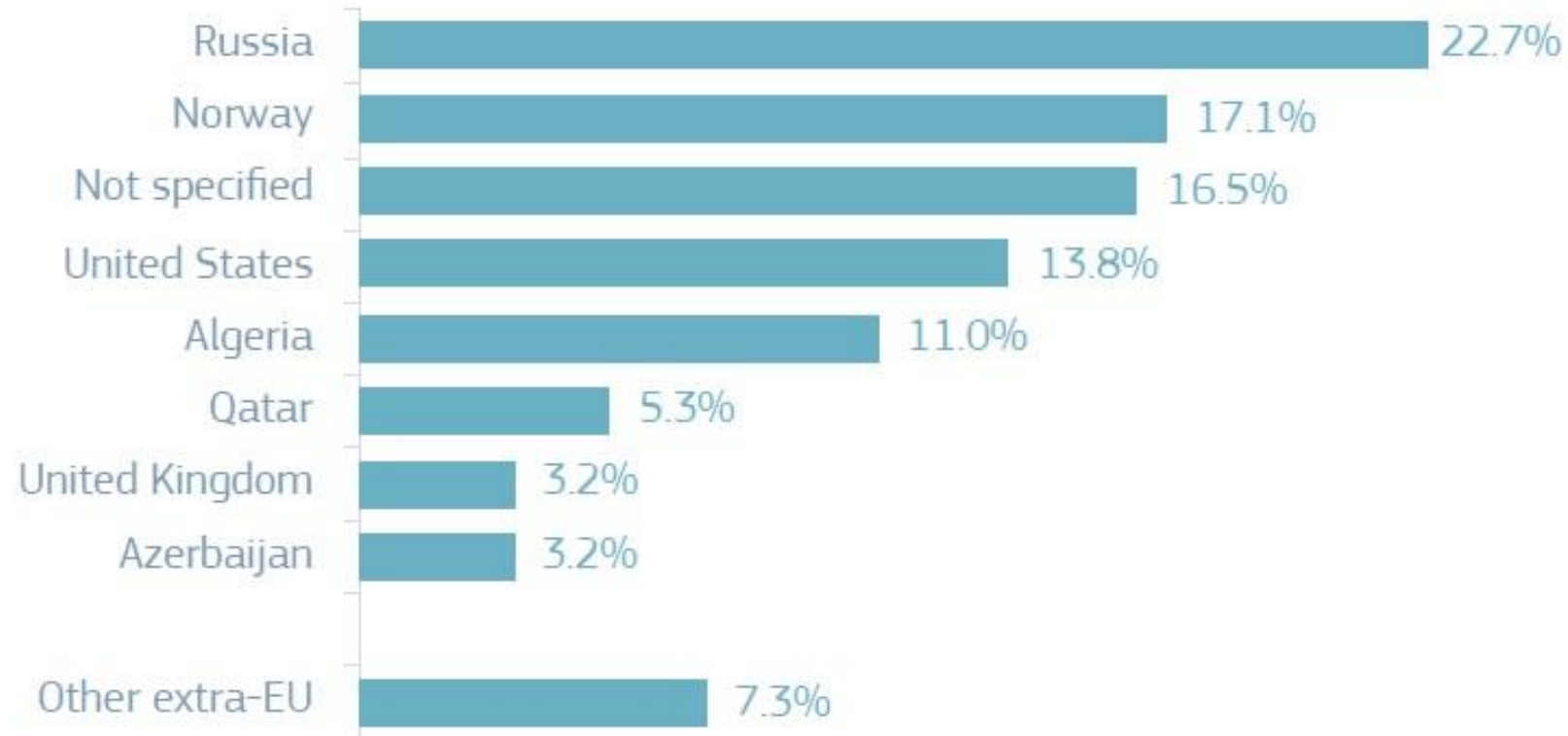
CENTRAL EUROPE'S OIL INFRASTRUCTURE



EU GAS dependence

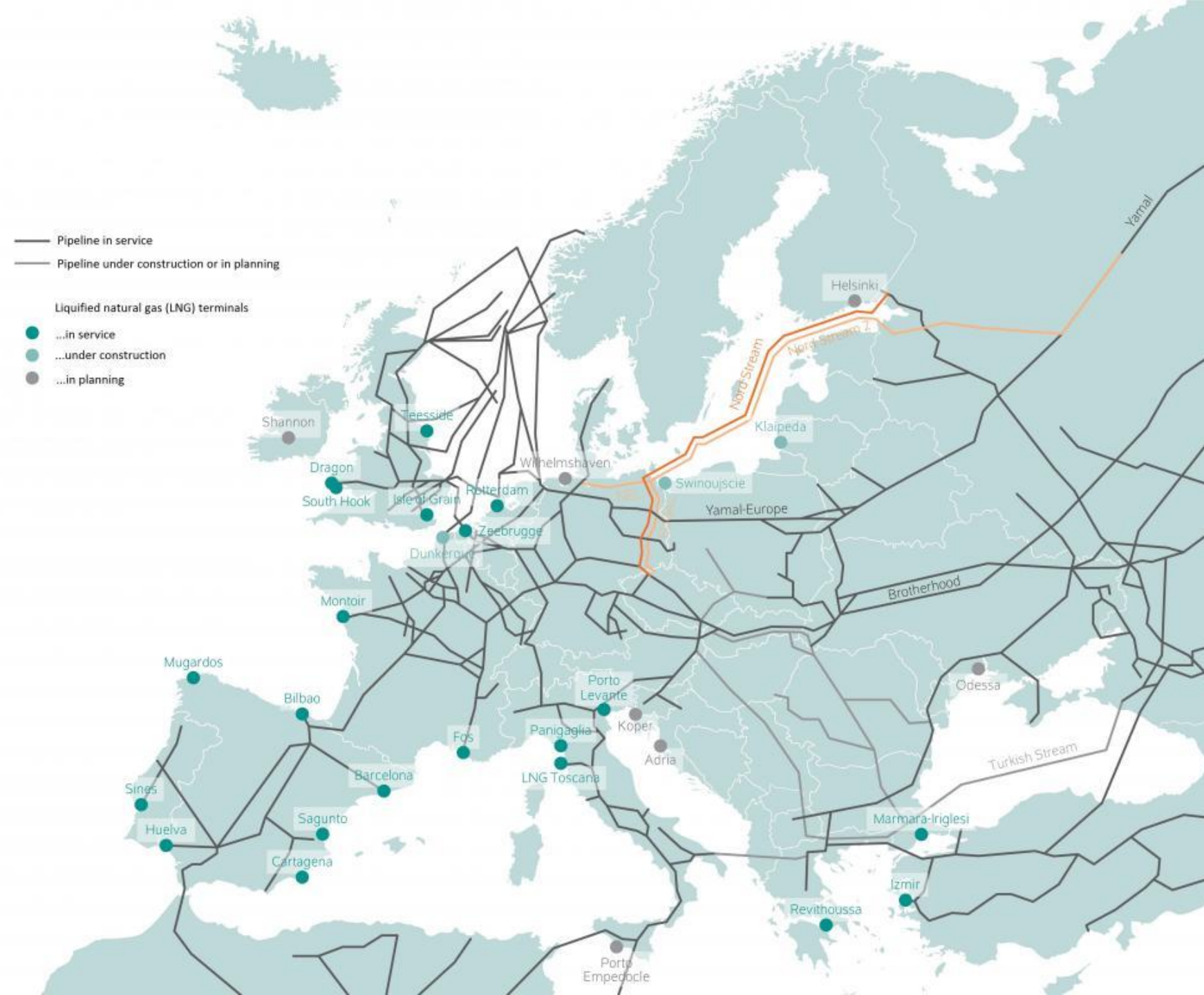
EU27_2020 IMPORTS* OF NATURAL GAS - 2022

Total extra-EU= 14 503 257.3 TJ-GCV (376.4 bn m³)



European Gas pipelines

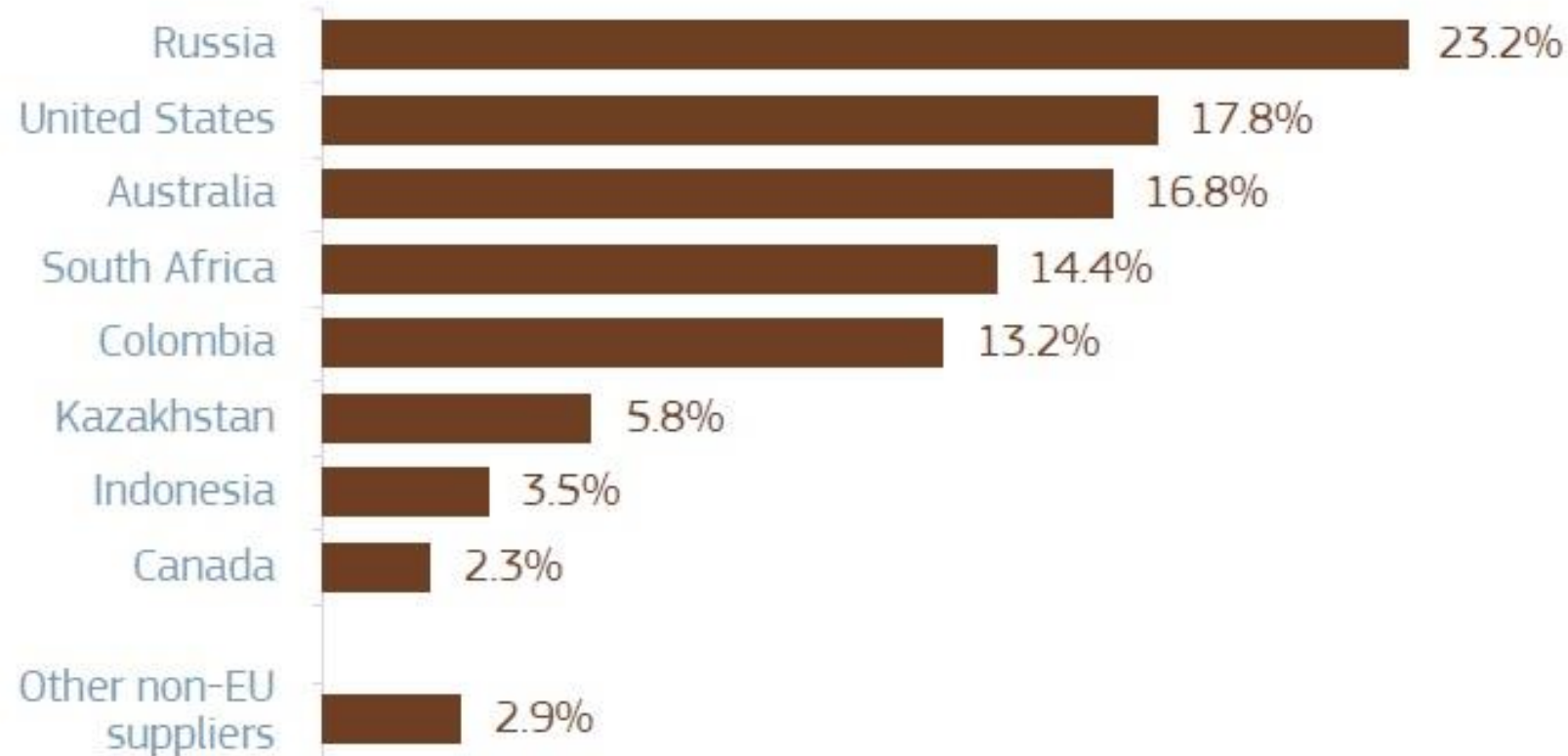
Uneasy
interdependence



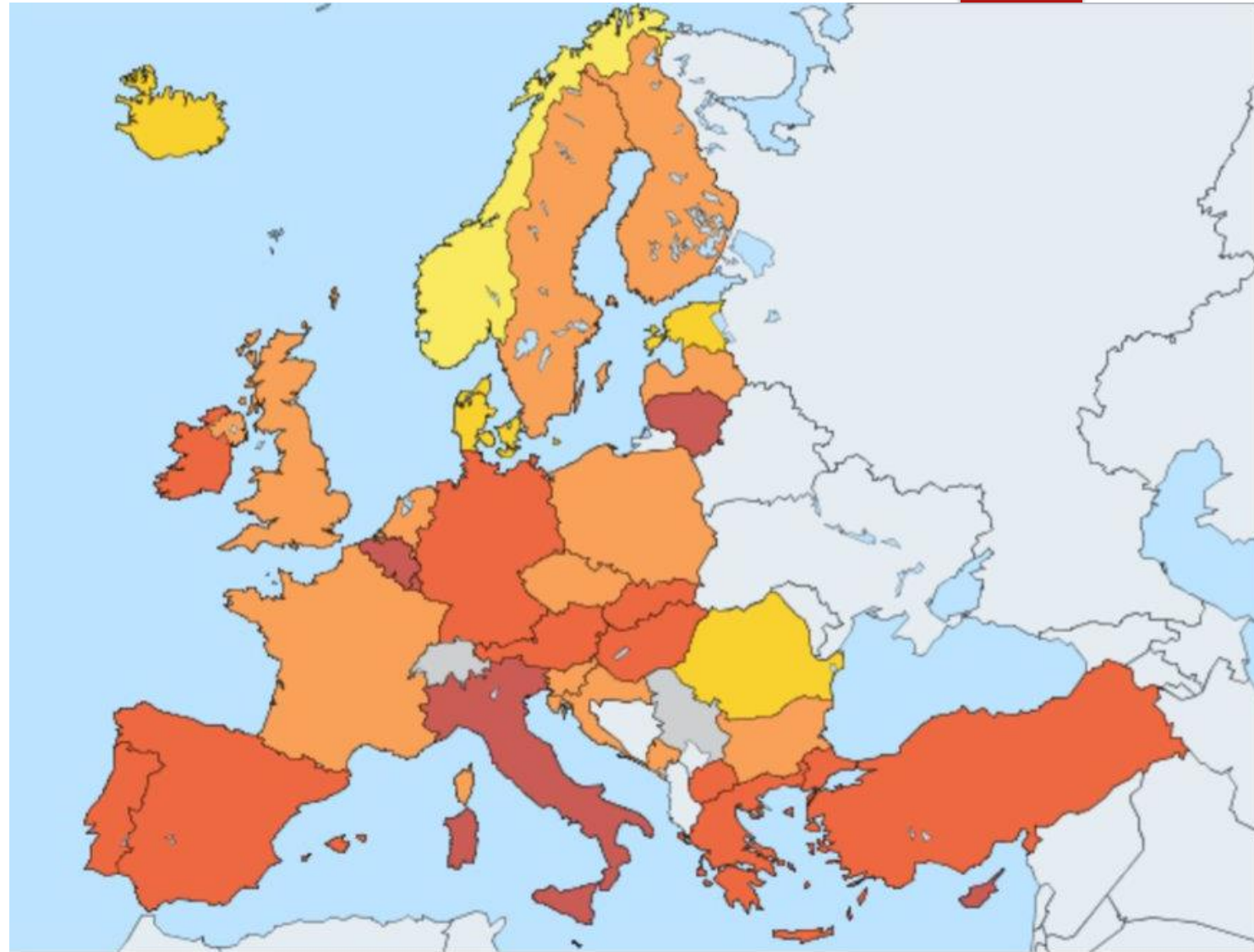
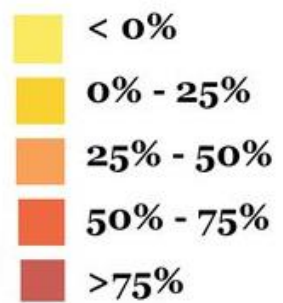
EU COAL dependence

EU27_2020 imports* of hard coal - 2022

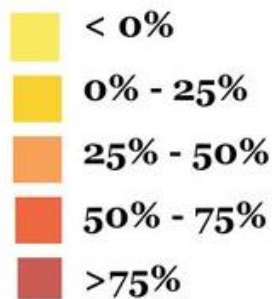
Total Extra-EU= 117 253.9 kton



EU Energy Dependence 2016



EU Energy Dependence 2022

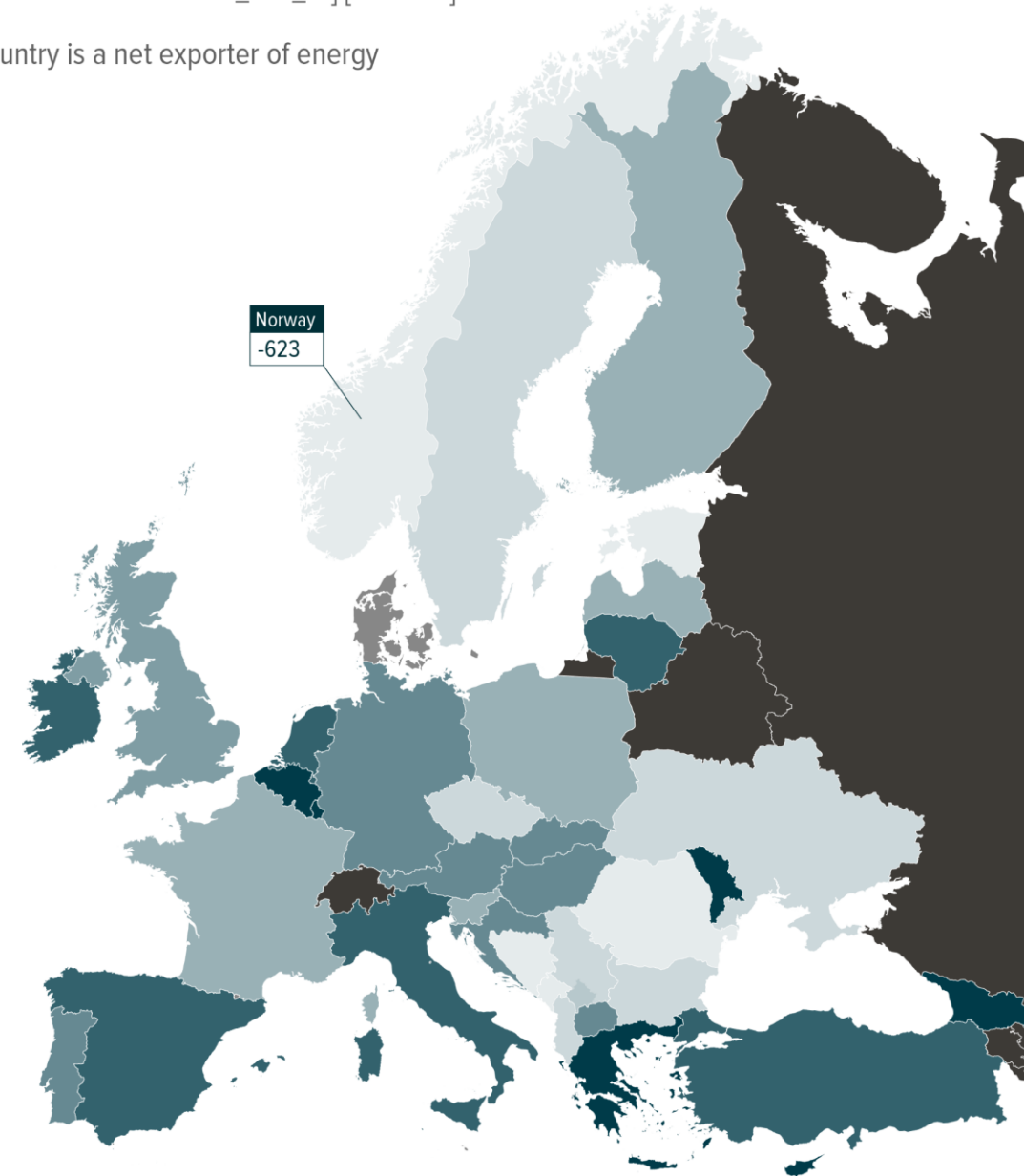
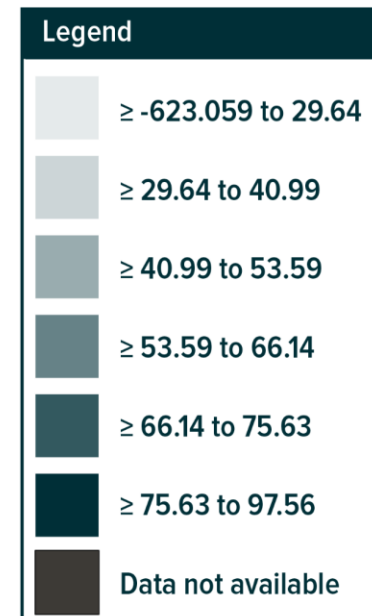


ENERGY IMPORT DEPENDENCE RATIOS IN EUROPE

Sources: Global X ETFs with information derived from: Eurostat. (2022, April 14).

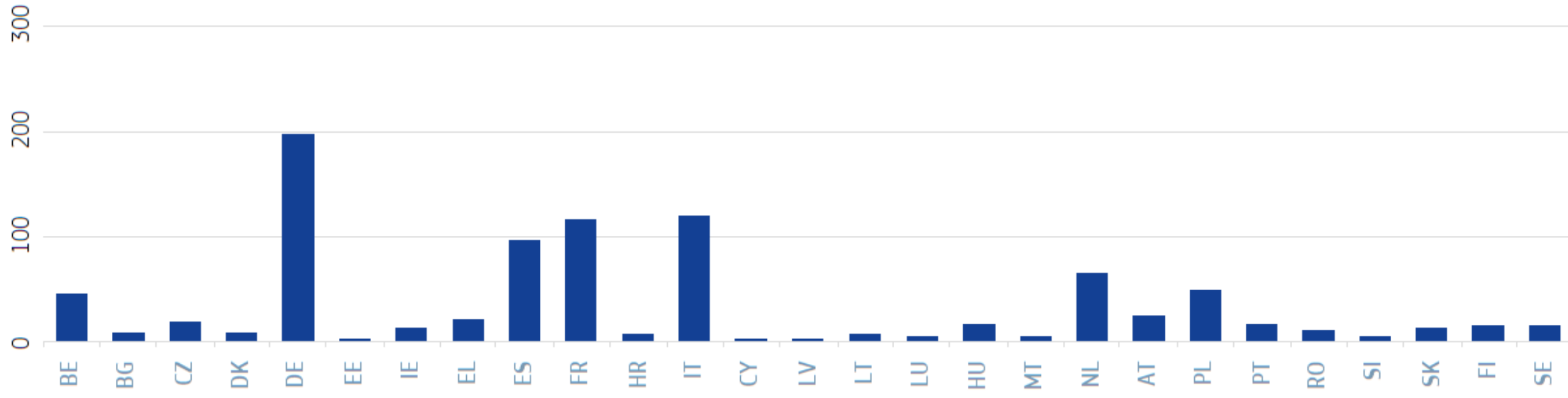
Energy imports dependency [online data code: NRG_IND_ID] [Data set].

*A negative value indicates a country is a net exporter of energy

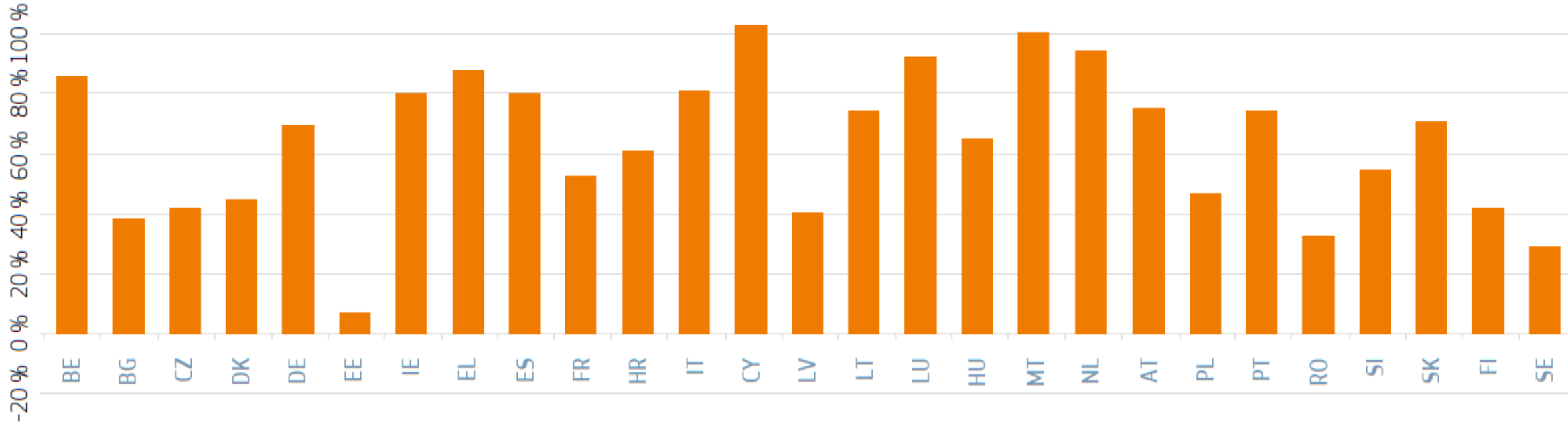


2022

NET IMPORTS (Mtoe)



ENERGY IMPORT DEPENDENCY (%)

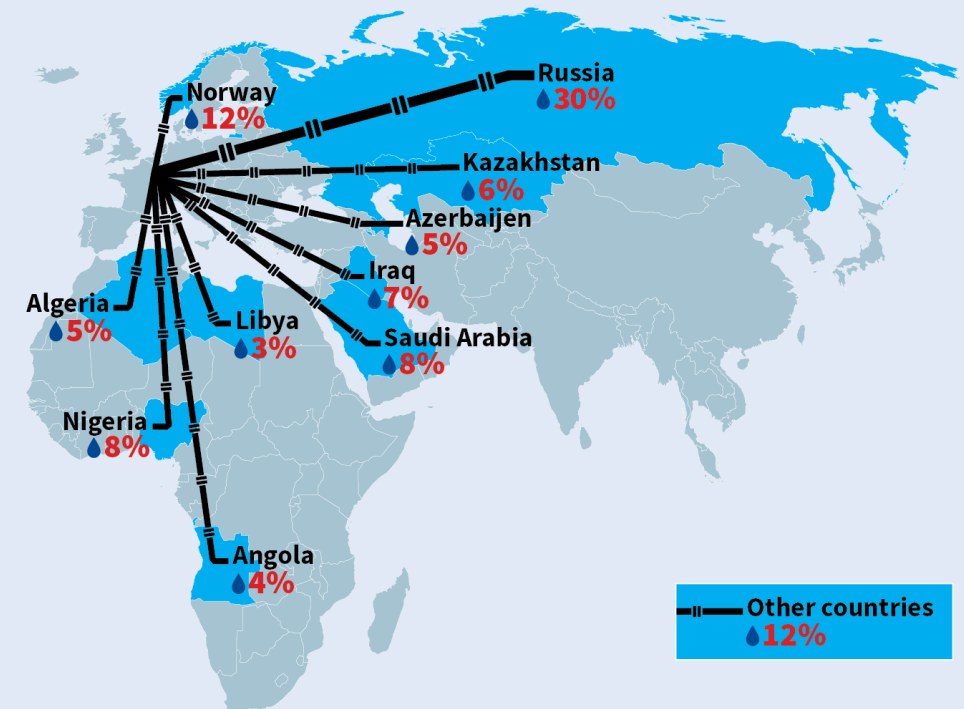


European Energy Security

- ▶ EU resources of oil and gas are **depleted**
- ▶ **Diversification of sources ...limited geologically and geopolitically**

- Reliable suppliers
- Build oil and gas stocks
- Availability and stability of infrastructure (electricity grid/product pipelines)
- Potentially strong EU voice or bilateral deals by MS
- Gas industry lobby
- Weak CFSP

Russia: EU's main oil supplier



WINTER IS COMING

WE BETTER HAVE A STRATEGY THIS TIME

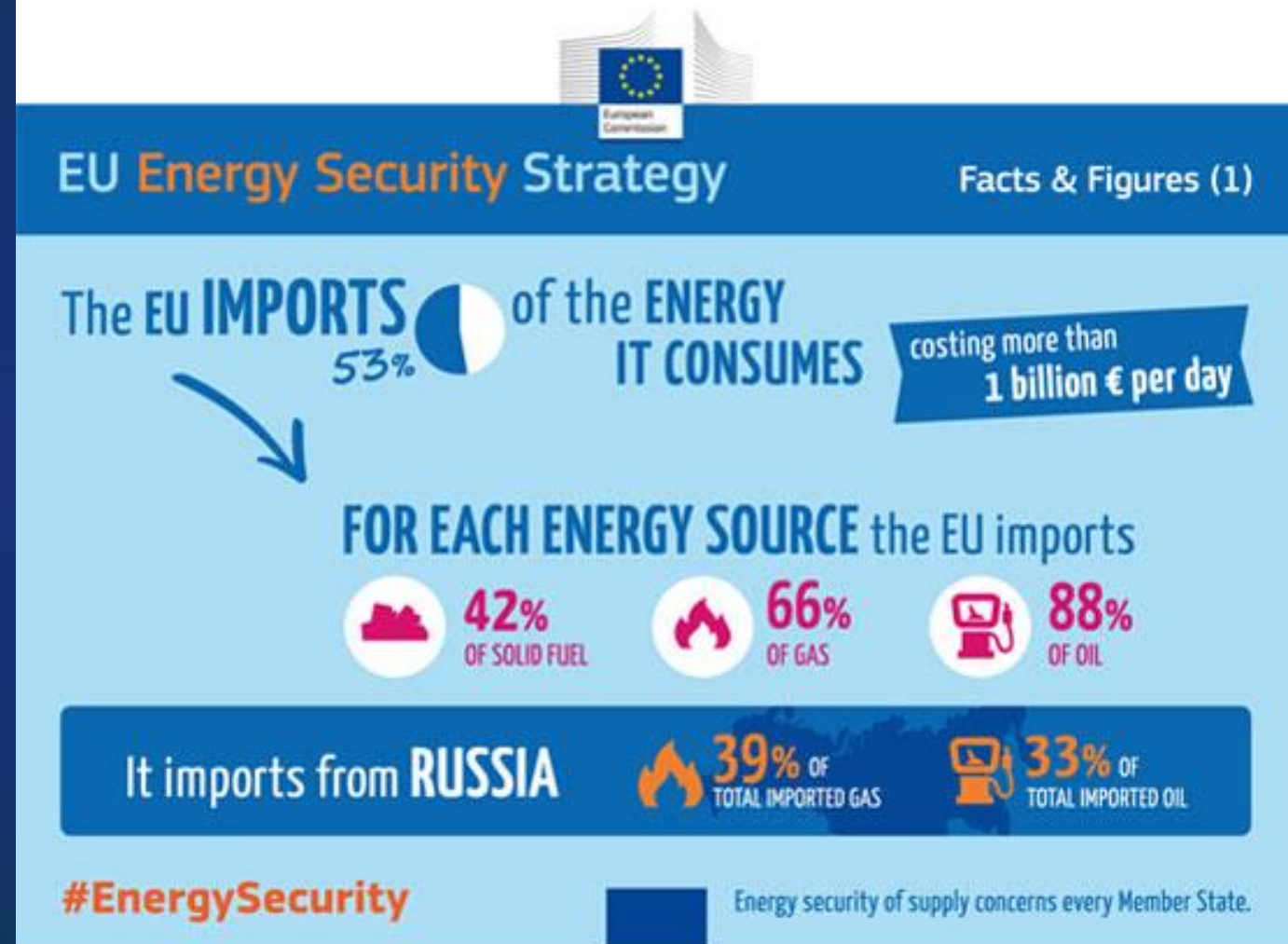
imgflip.com

EU Energy Security Strategy 2014

EU remains vulnerable to external shocks

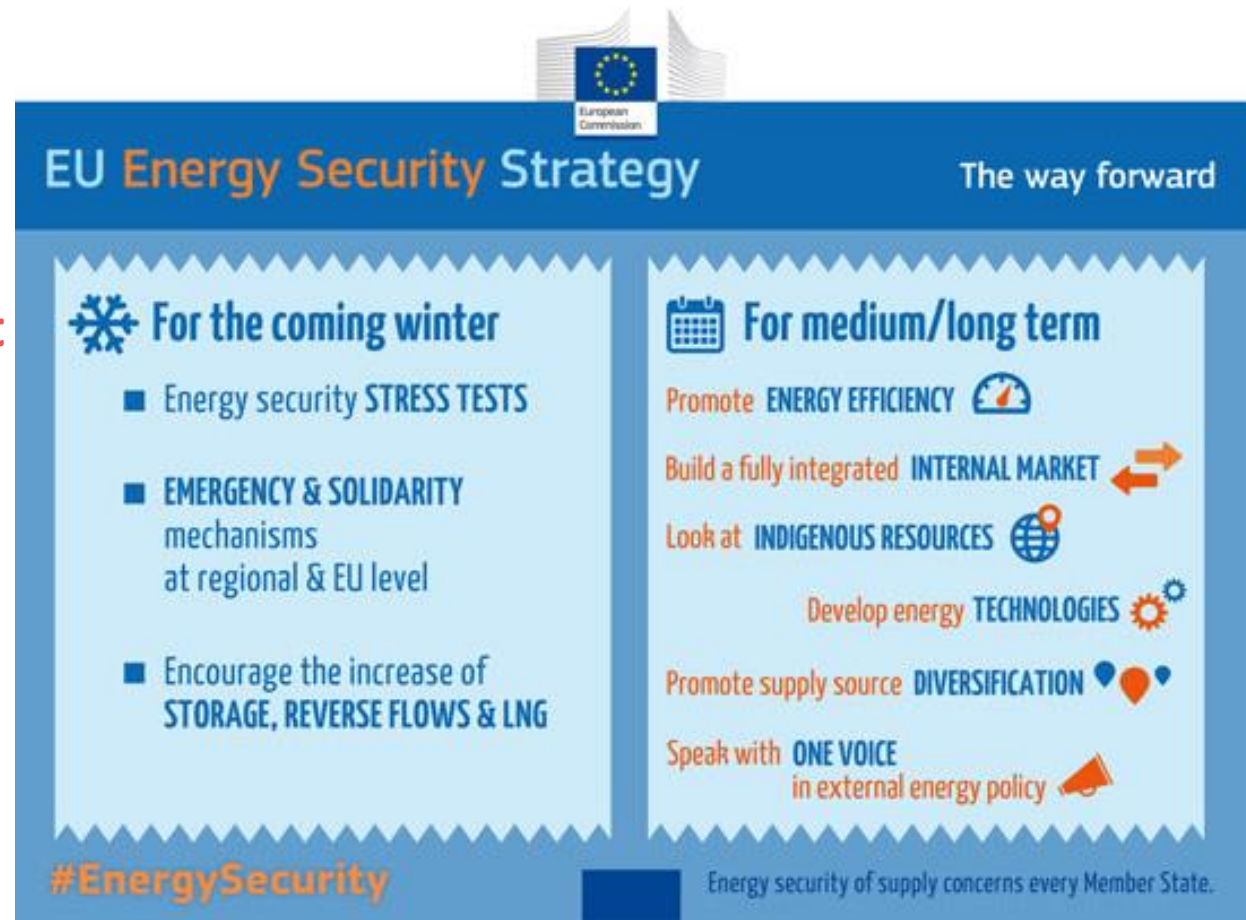
Energy policy remains fragmented among the MS

Gas, oil, ...but also **nuclear fuel!**



EU Energy Security Strategy 2014

1. Prepare for **winter 2014/2015**
2. **Solidarity**, protect infrastructure
3. **Moderate** demand
4. Build a functionally integrated **internal market**
5. **Increase energy production in Europe**
6. Further develop **renewable technologies** energy and energy efficiency
7. **Diversify supplies** and infrastructure
8. Improve coordination of national policies!
Create an Energy Union



The infographic is titled "EU Energy Security Strategy" with the subtitle "The way forward". It features the European Commission logo at the top. The content is divided into two main sections: "For the coming winter" and "For medium/long term". The winter section includes three bullet points: "Energy security STRESS TESTS", "EMERGENCY & SOLIDARITY mechanisms at regional & EU level", and "Encourage the increase of STORAGE, REVERSE FLOWS & LNG". The medium/long term section includes five bullet points: "Promote ENERGY EFFICIENCY", "Build a fully integrated INTERNAL MARKET", "Look at INDIGENOUS RESOURCES", "Develop energy TECHNOLOGIES", and "Promote supply source DIVERSIFICATION". It also includes the phrase "Speak with ONE VOICE in external energy policy". At the bottom, there is a hashtag "#EnergySecurity" and a statement: "Energy security of supply concerns every Member State."

EU Energy Security Strategy

The way forward

For the coming winter

- Energy security STRESS TESTS
- EMERGENCY & SOLIDARITY mechanisms at regional & EU level
- Encourage the increase of STORAGE, REVERSE FLOWS & LNG

For medium/long term

- Promote ENERGY EFFICIENCY
- Build a fully integrated INTERNAL MARKET
- Look at INDIGENOUS RESOURCES
- Develop energy TECHNOLOGIES
- Promote supply source DIVERSIFICATION
- Speak with ONE VOICE in external energy policy

#EnergySecurity

Energy security of supply concerns every Member State.

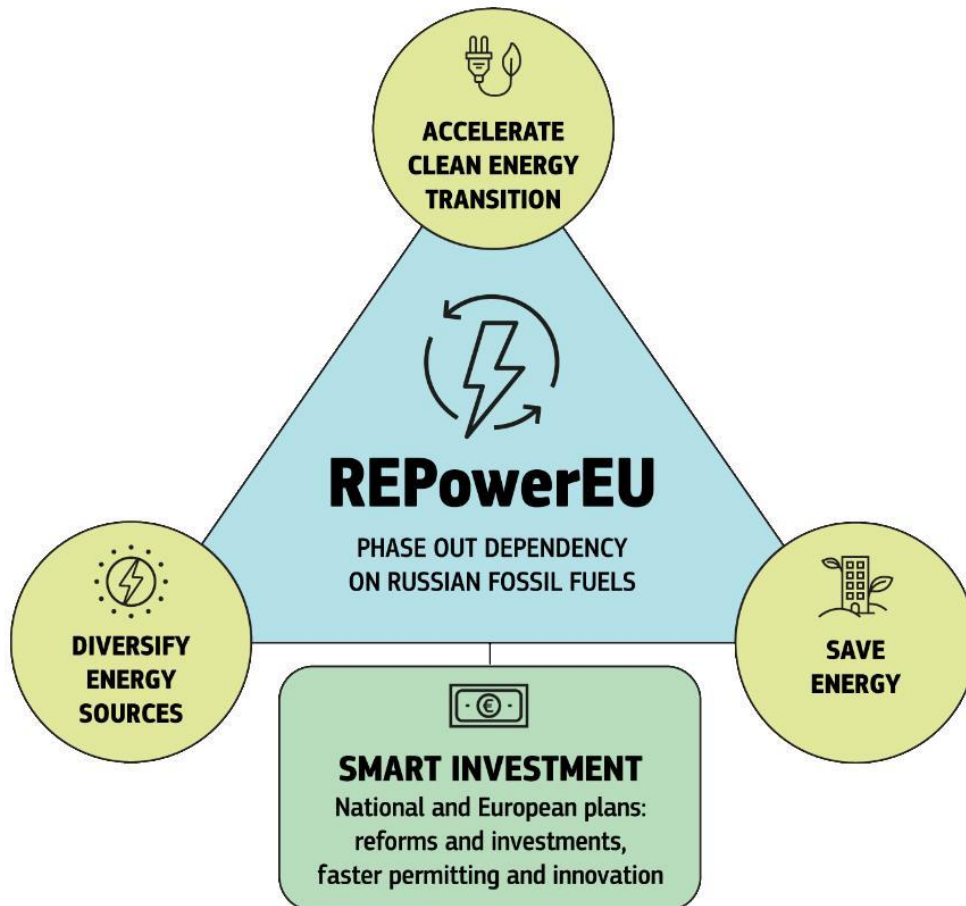
REPowerEU 2022(-2027)

In reaction to Russian war in Ukraine...

- Decrease EU dependence on Russian products
- Sanction and embargo Russian oil and gas

Plan to:

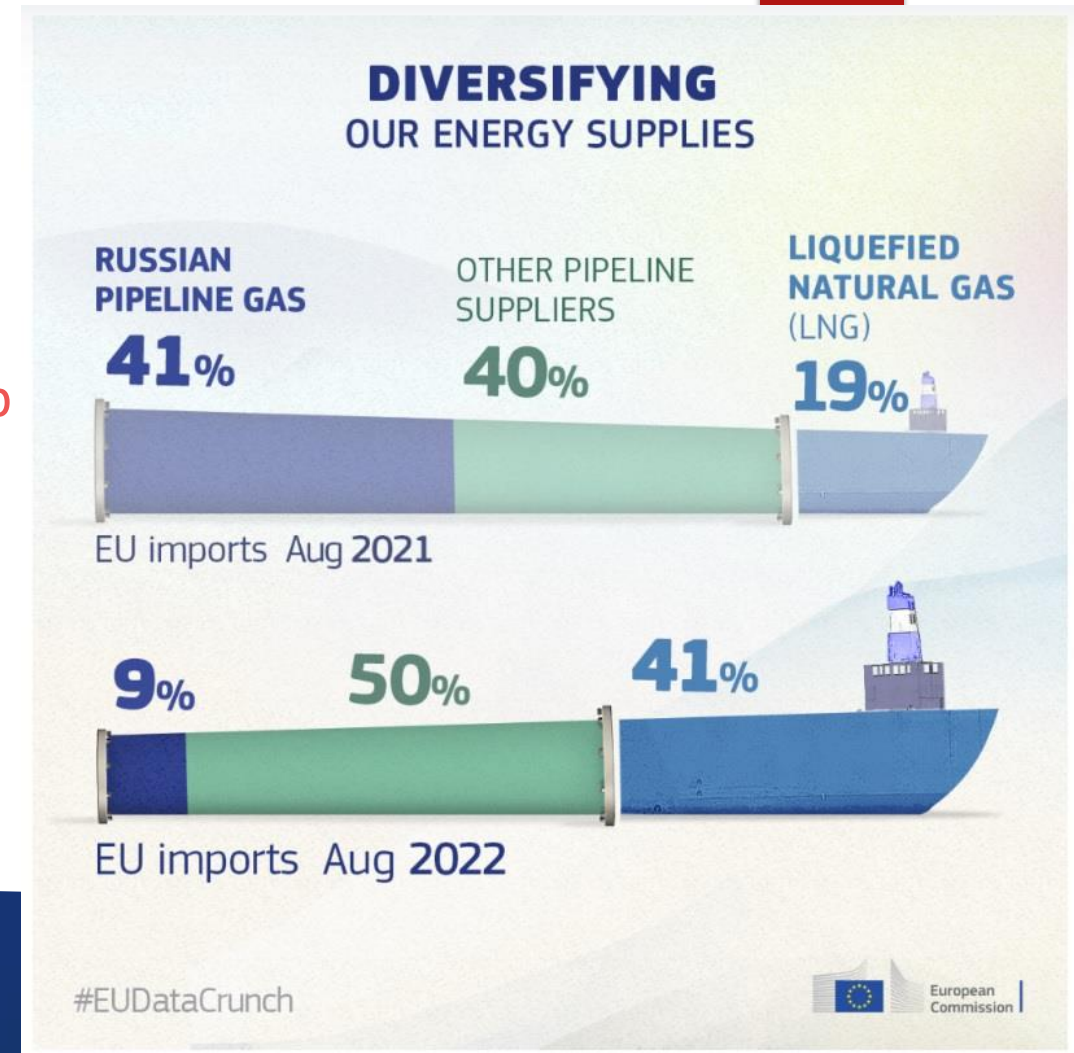
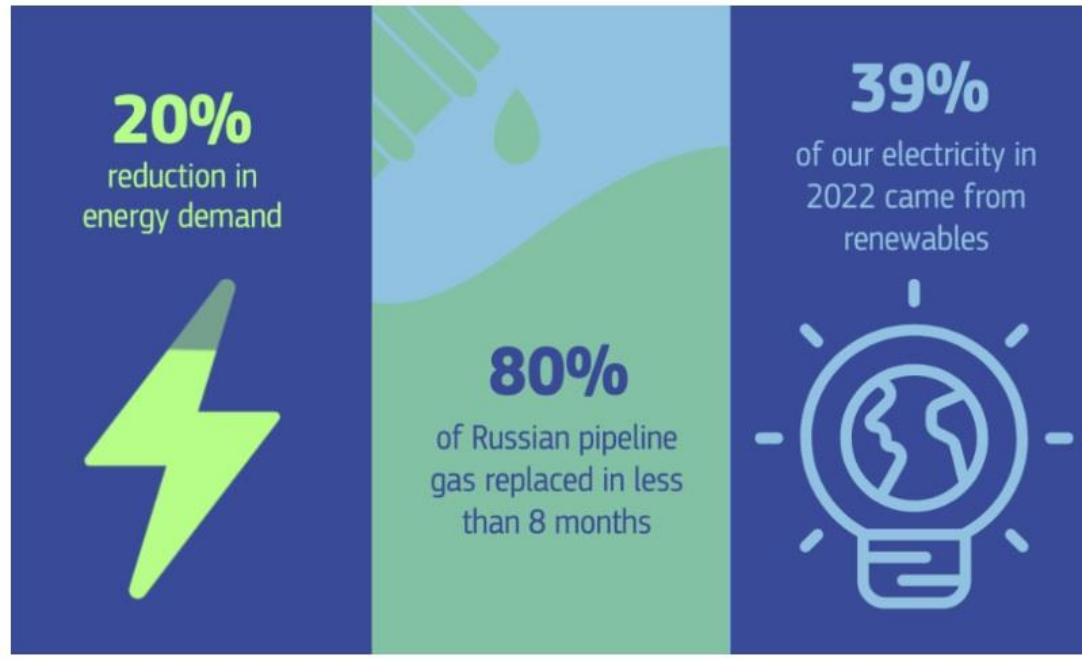
1. **Save energy** (heating, lights, more public transport...)
2. Produce more **clean energy** quicker (technology support)
3. **Diversify energy suppliers** (Norway, Egypt, Azerbaijan, Qatar; explore sub-Saharan options: Nigeria, Senegal or Angola)



Financing (€225 billion) from: cohesion policy, agriculture fund for rural development, innovation fund, private investment, national budgets, European Investment Bank

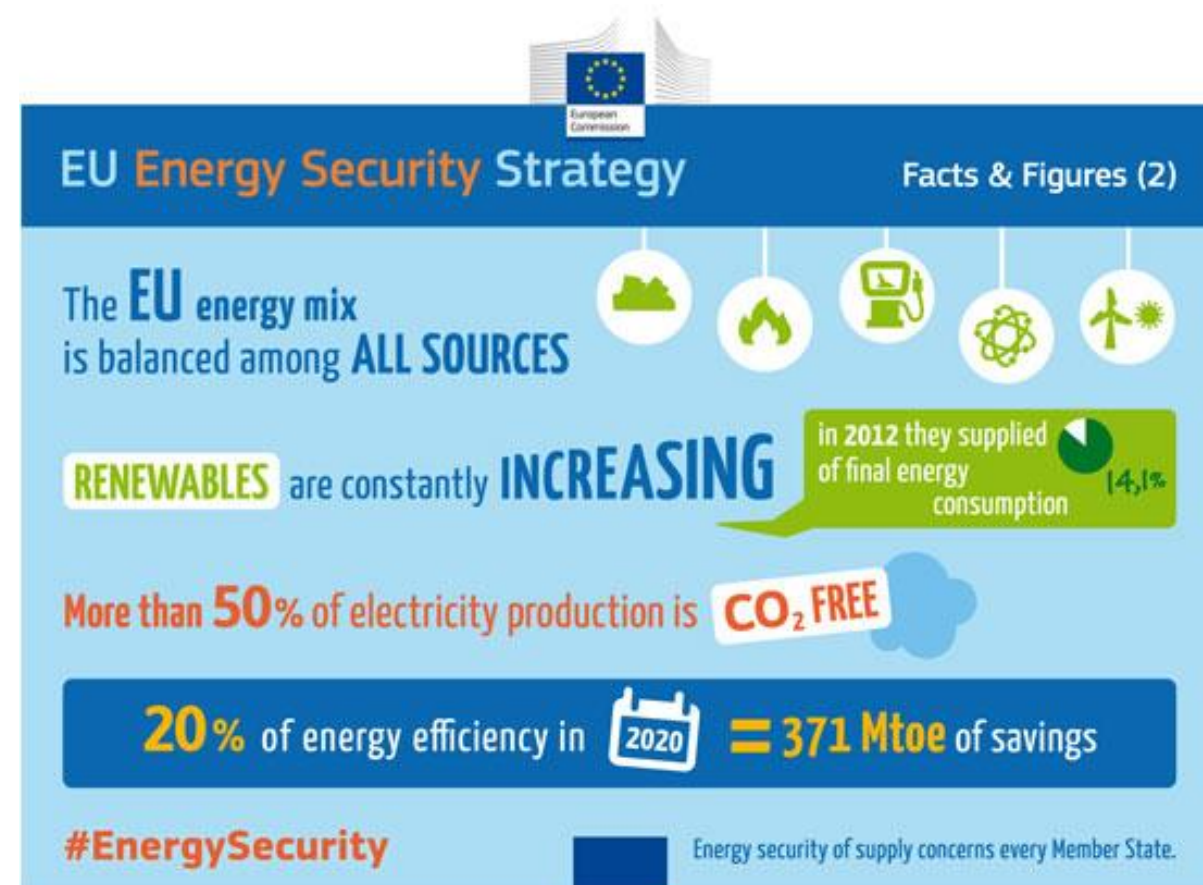
REPowerEU after 2 years

- **reduced** its dependency on Russian fossil fuels
- **saved** almost 20% of its energy consumption
- introduced the **gas price cap** and the global oil price cap
- **doubled** the additional deployment of renewables



Energy and Climate change

- ▶ Energy sector contributes heavily to global warming
- ▶ EU ambition to **lead by example**
- ▶ **European Commission** an active player especially in the international vacuum left by the US (Kyoto, Paris Agreements)
- ▶ **Carbon emissions trading scheme**
- ▶ Environmental aspects of EU policies (CAP, trade, transportation, housing...)
- ▶ Green Deal!



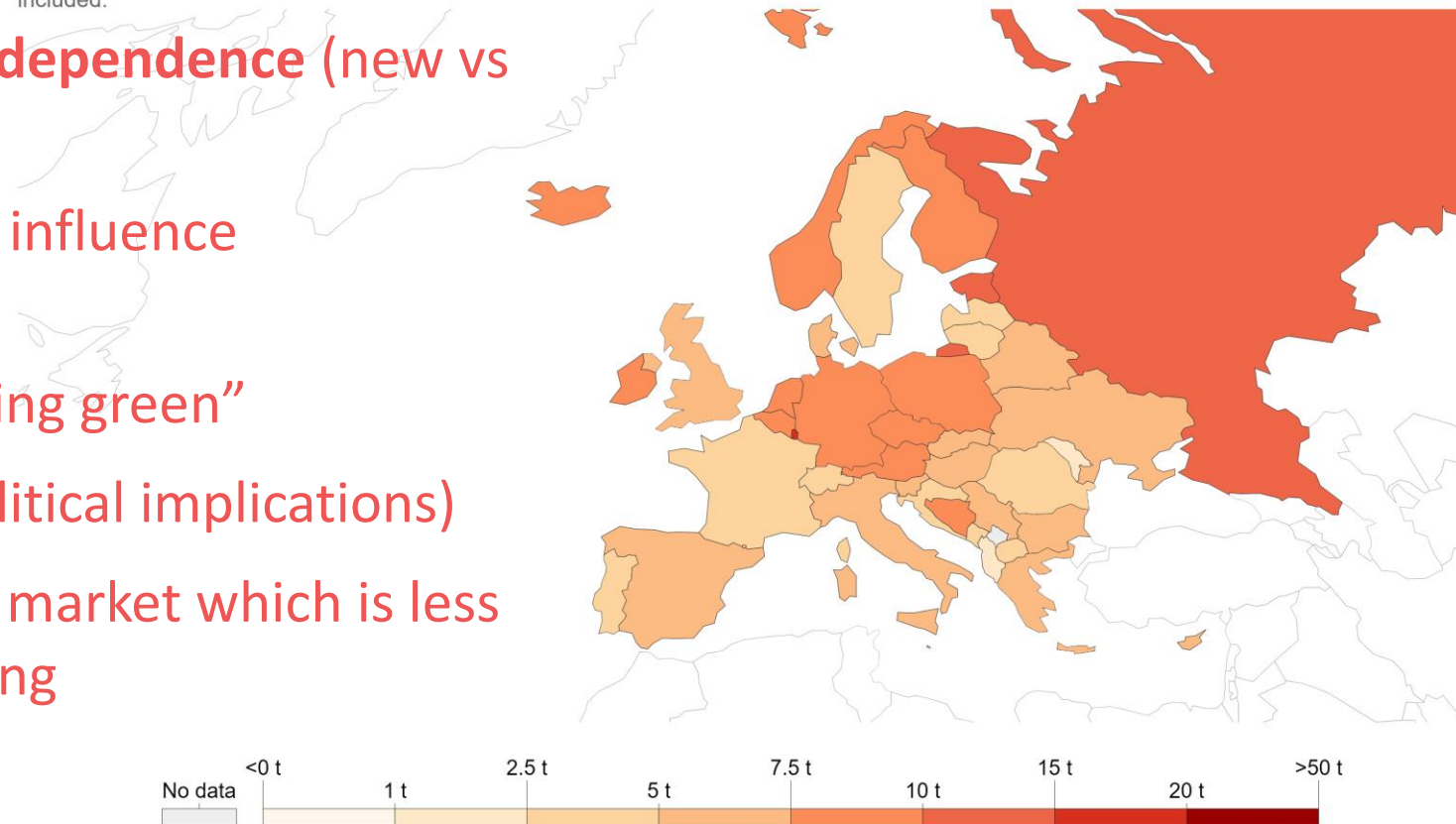
Energy and Climate change

Per capita CO₂ emissions, 2019

Carbon dioxide (CO₂) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Our World
in Data

- ▶ Different country **energy mixes** and **dependence** (new vs old members)
- ▶ Existence of **Green parties** and their influence (*Energiewende*)
- ▶ **Social and economic impacts** of “going green”
 - A European “rust belt” (and its political implications)
- ▶ **EU competitiveness** in international market which is less green and is not afraid to use dumping
- ▶ **“Externalization”** of pollution



Source: Our World in Data based on the Global Carbon Project; Gapminder & UN

Note: CO₂ emissions are measured on a production basis, meaning they do not correct for emissions embedded in traded goods.

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

2005/8 – Emissions trading system

- ▶ A market-based approach to lowering emissions
- ▶ “cap and trade” cap total and trade/buy unused/needed **permissions**
- ▶ **EU Emissions Trading Scheme** video

Market distortions:

- Different allowances between old and new
- Subsidized renewable energy (in the mix)
- Low cost of allowances...



Common targets (also on biofuels), but after 2008 economic downturn

Environmental policy

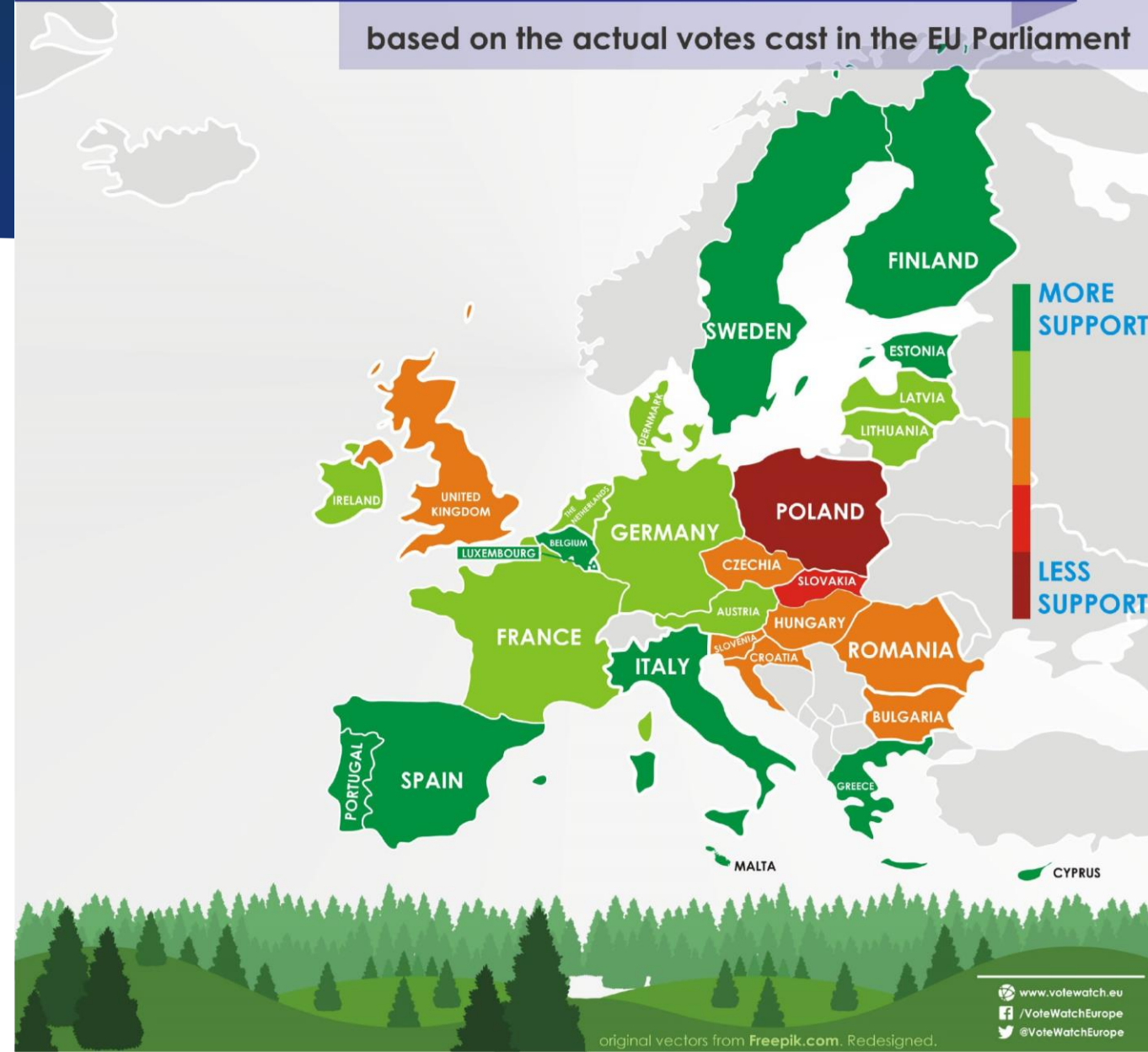
- ▶ Relatively new to the EU policy mix since 1972 (UN Conference on Human Environment, Stockholm)
- First mention only in 1987 Single European Act
- ▶ quickly grew in scope
- ▶ a “shared competence” in Lisbon but **more EU “governance” than in pure energy policy**

GOAL:

Sustainable development, environmental policy integration

Degree of support for environmentally progressive policy in the EP by country

based on the actual votes cast in the EU Parliament



Treaty of Lisbon Title XX, Art 191

1. Union policy on the environment shall contribute to pursuit of the following objectives:

- **preserving**, protecting and improving the quality of the environment,*
- **protecting** human health,*
- prudent and rational utilisation of **natural resources**,*
- promoting **measures at international level** to deal with regional or worldwide environmental problems, and in particular combating climate change.*

*2. Union policy on the environment shall **aim at a high level of protection** taking into account the **diversity of situations** in the various regions of the Union. It shall be based on the **precautionary principle** and on the principles that **preventive action** should be taken, that environmental damage should as a priority be rectified at source and that the **polluter should pay**.*

Principles of EU enviro policy

Environmental management:

- Prevention, action at the source, pollution control

Enviro standards:

- Resource conservation, high level of protection, precautions

Allocation of authority:

- Subsidiarity, right level of action

Policy integration:

- Polluter pays, integration of enviro policies across sectors



Trends in EU enviro policy

- ▶ Integration from *ad hoc* to → comprehensive policies
 - ▶ Legislating from “preventing disasters” to → legislating for environment “as such”
 - ▶ **Spilling over** into other policy areas (“from cars to CAP”)
 - ▶ More coordination (through Environmental Action Programmes) supported by the European Environment Agency
 - ▶ More QMV
 - ▶ Effects on **domestic** conduct (subsidies, standards)
 - ▶ **International:** enviro soft power through trade
 - ▶ **European Commission:** most active
- 
- Living well
the limits of o
7th Environment Act



Living well, within the limits of our planet

7th Environment Action Programme

Actors and agencies



► **European Commission:**

- Plan out, legislate, subsidize, fund research, coordinate across sectors, technical expertise, check implementation (through infringement)

► **European Parliament:**

- The Greens (since 1999), [Committee on the Environment, Climate and Food Safety](#)

► **Council** (member states):

- Initially reactive to EC proposals, now learning from each other, implementation (or lack of)

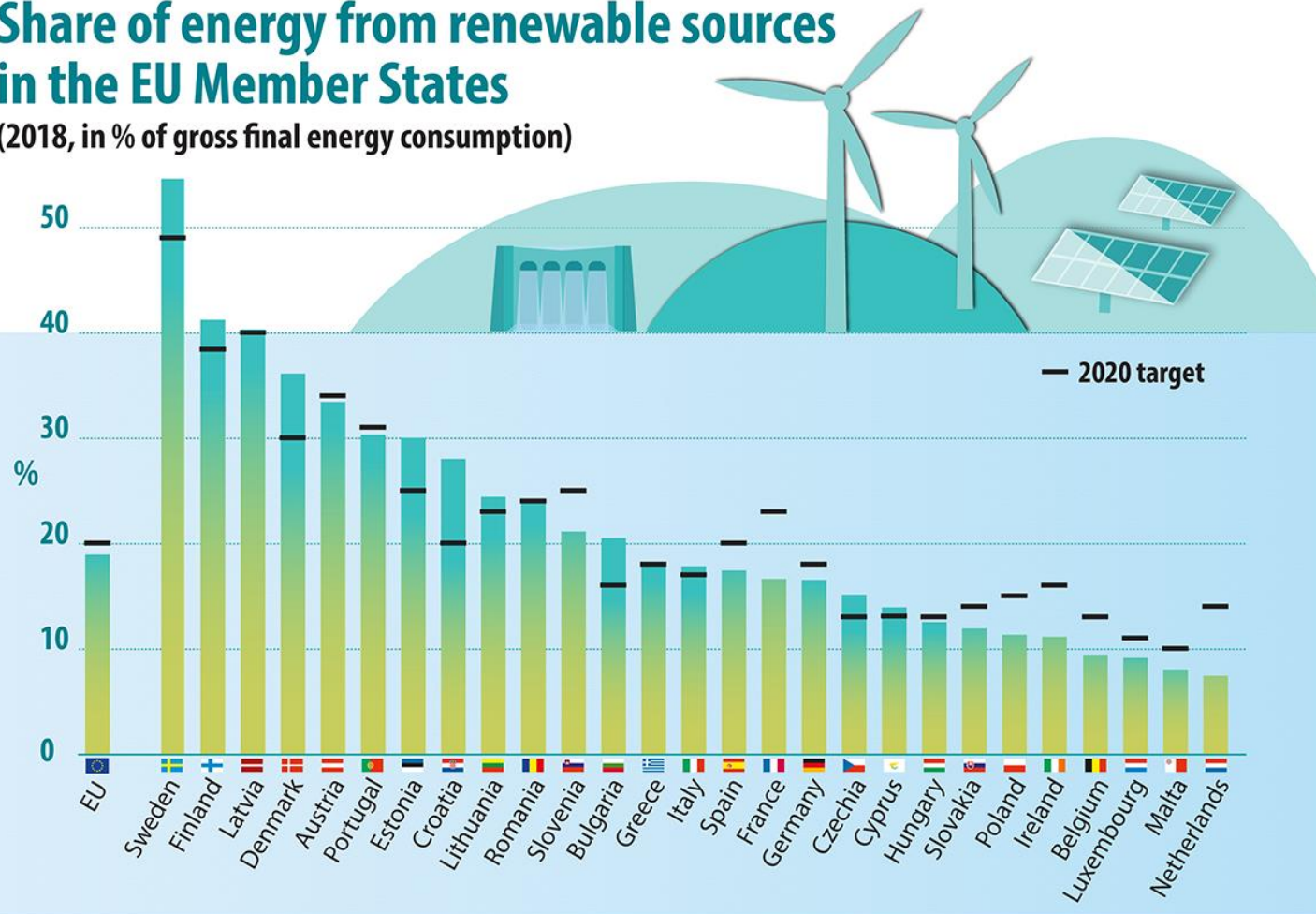
► [European Environmental Agency:](#)

- Data/knowledge resource on climate change and environment

Future challenges

Share of energy from renewable sources in the EU Member States

(2018, in % of gross final energy consumption)



► Implementation!!!

► **Coordination and cohesiveness** of the multi-sector, multi-level, multi-national policy

► Economy or environment?

► Dealing with “ripple effects” across sectors (jobs, competitiveness...)

EU Green Deal 2020

