



European **Political
Strategy** Centre

ETS funding mechanisms in the context of the EU long-term climate strategy

EU ETS: implementation of the funding mechanisms

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Brussels

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From ambition to action

“

*I want to reform and reorganise Europe's energy policy into a new European Energy Union. (...) We need to strengthen the share of renewable energies on our continent. This is not only a matter of a responsible climate change policy. It is, at the same time, an industrial policy imperative if we still want to have affordable energy at our disposal in the medium term. I strongly believe in the potential of green growth. **I therefore want Europe's Energy Union to become the world number one in renewable energies.** (...)*

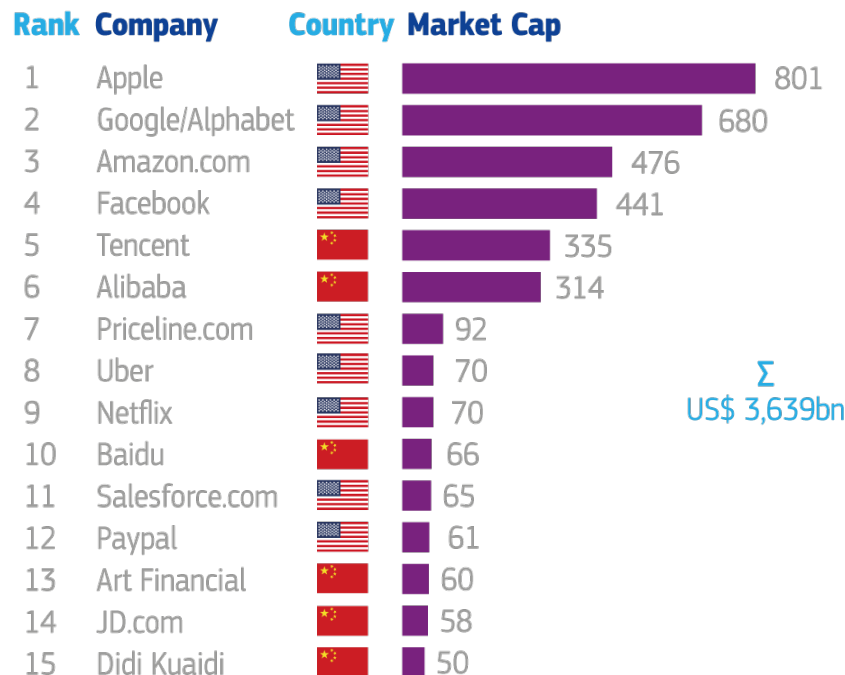
Jean-Claude Juncker, A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change – Political Guidelines for the next European Commission, 22 October 2014

*A binding 30% objective for energy efficiency by 2030 is to me the minimum if we want to be credible. **Transport policy will also have to make a contribution to these objectives.***

Jean-Claude Juncker, Mission Letter to Maroš Šefčovič, Vice-President for the Energy Union, 1 November 2014

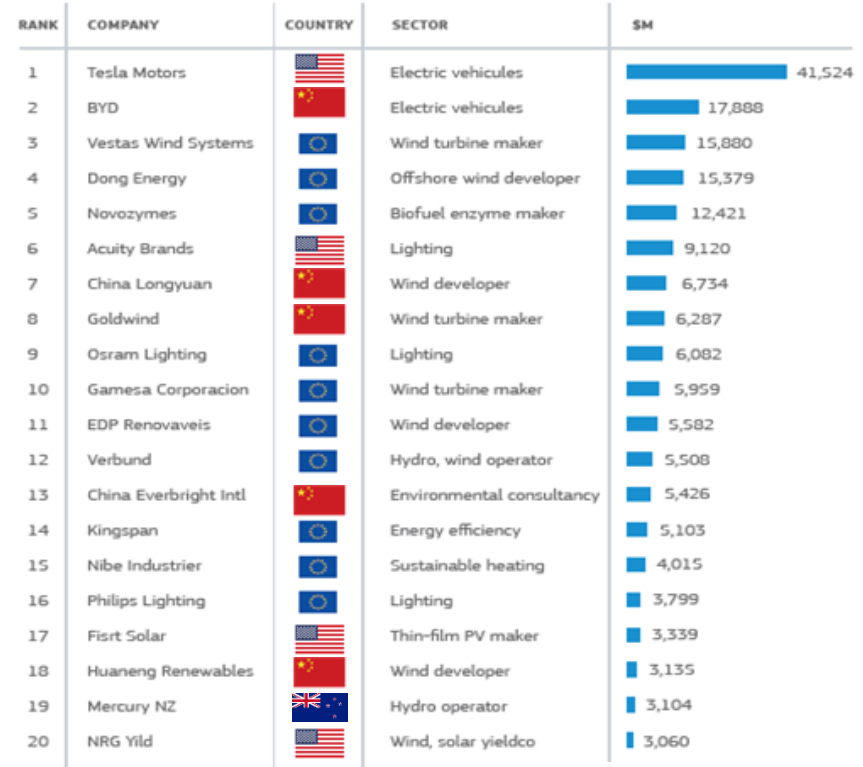
The fight against climate change can contribute to economic growth

Most valuable companies in the world



Source: Statista, 2017

Largest companies in the New Energy Global Innovation Index (NEX) by market capitalisation on 7 February 2017













Source: Bloomberg

Going strong in renewable innovation and manufacturing


Top 10 wind turbine manufacturers

ranked by Global Market Share

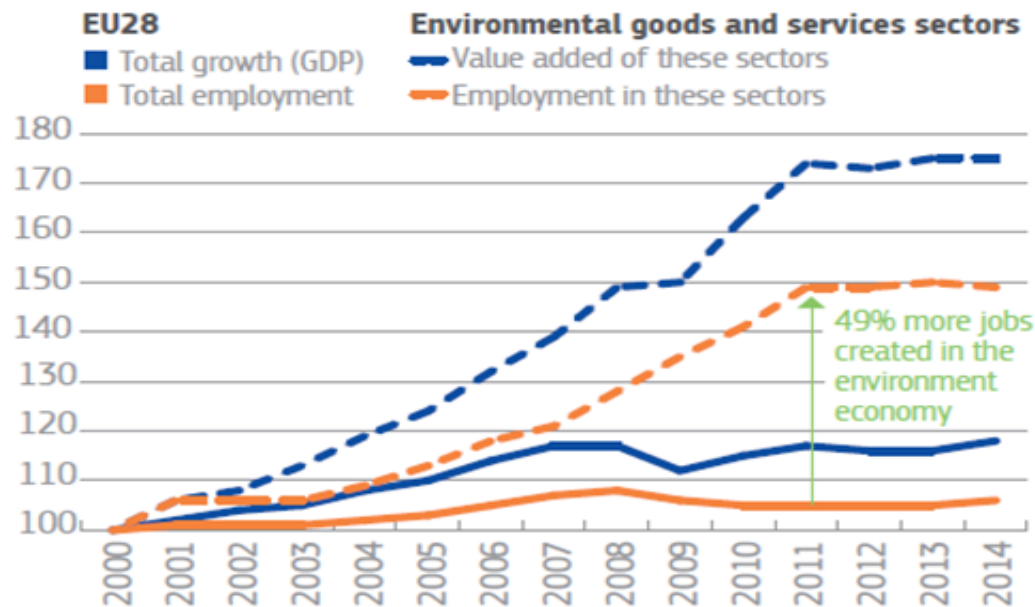
2008

 1. Vestas	 6. Sulzon
 2. GE	 7. Sinovel
 3. Gamesa	 8. Goldwin
 4. Enercon	 9. Dongfang
 5. Siemens	 10. Nordex

2015

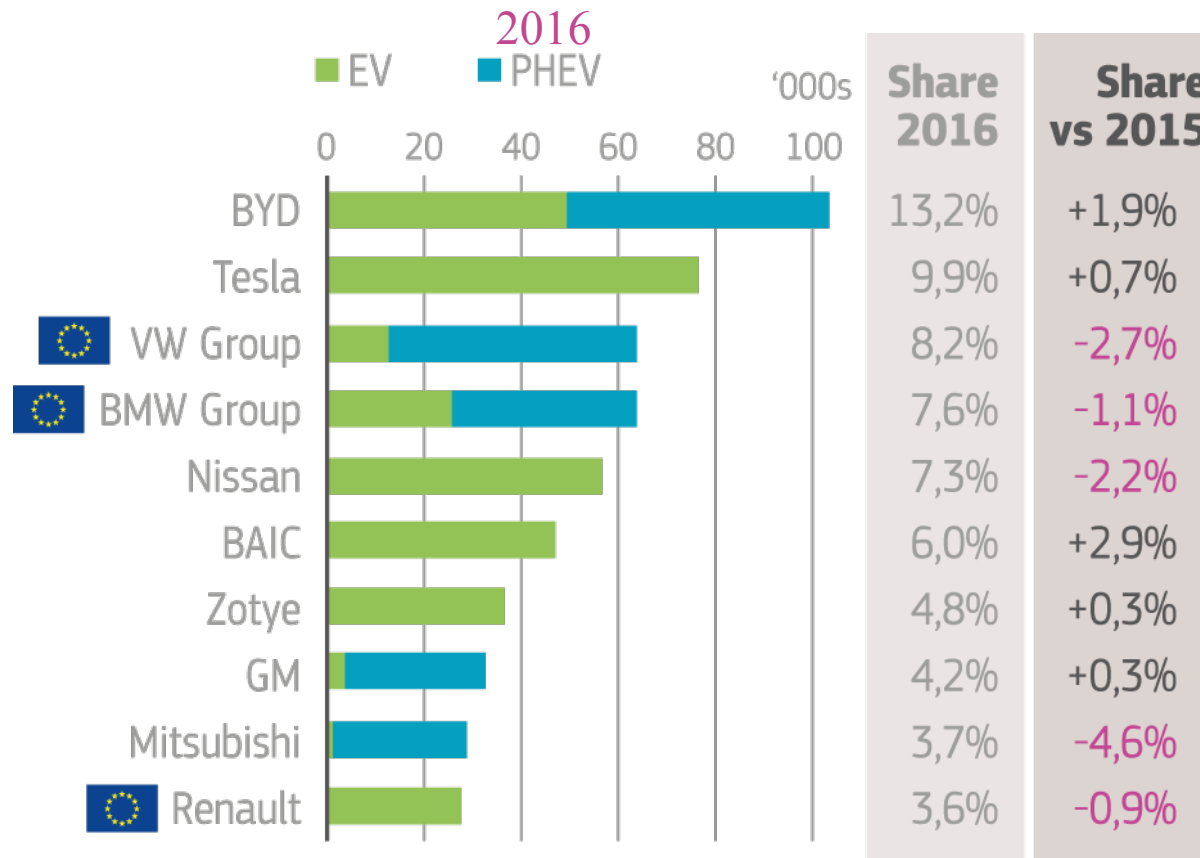
 1. Goldwin	 6. Enercon
 2. Vestas	 7. Guodian
 3. GE	 8. Ming Yang
 4. Siemens	 9. Envision
 5. Gamesa	 10. CSIC

In addition to technological leadership, fighting climate change is also about job creation



Red Alert: Europe's car industry

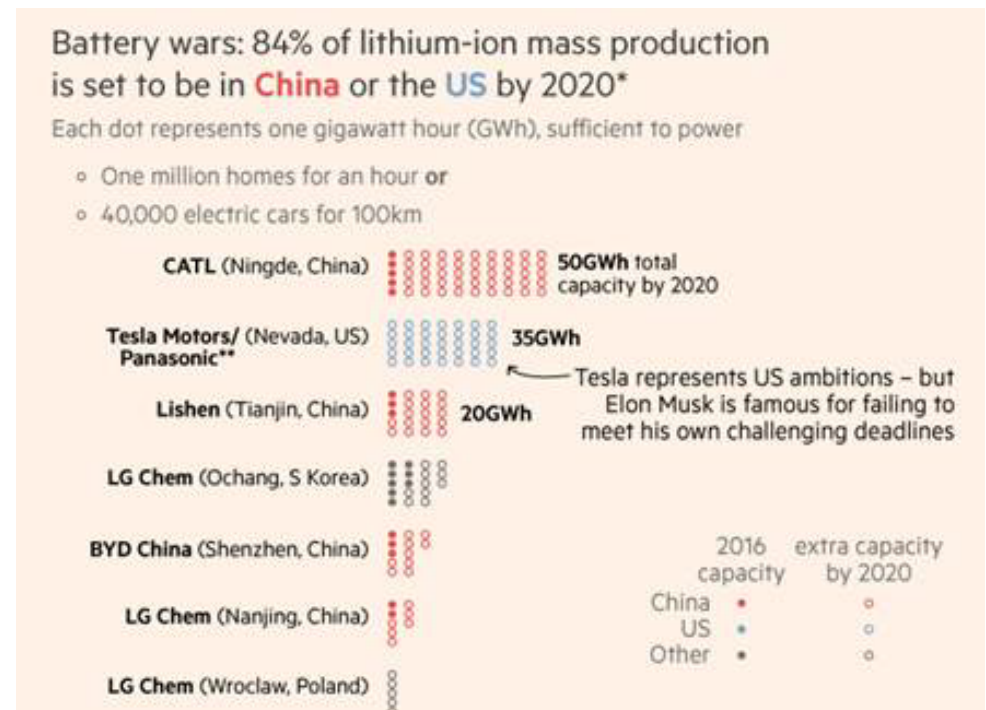
Top 10 global manufacturers, electric vehicles and plug-in hybrid electric vehicles



Source: <https://cleantechnica.com/2017/02/04/tesla-model-s-clocked-as-worlds-best-selling-electric-car-in-2016/>

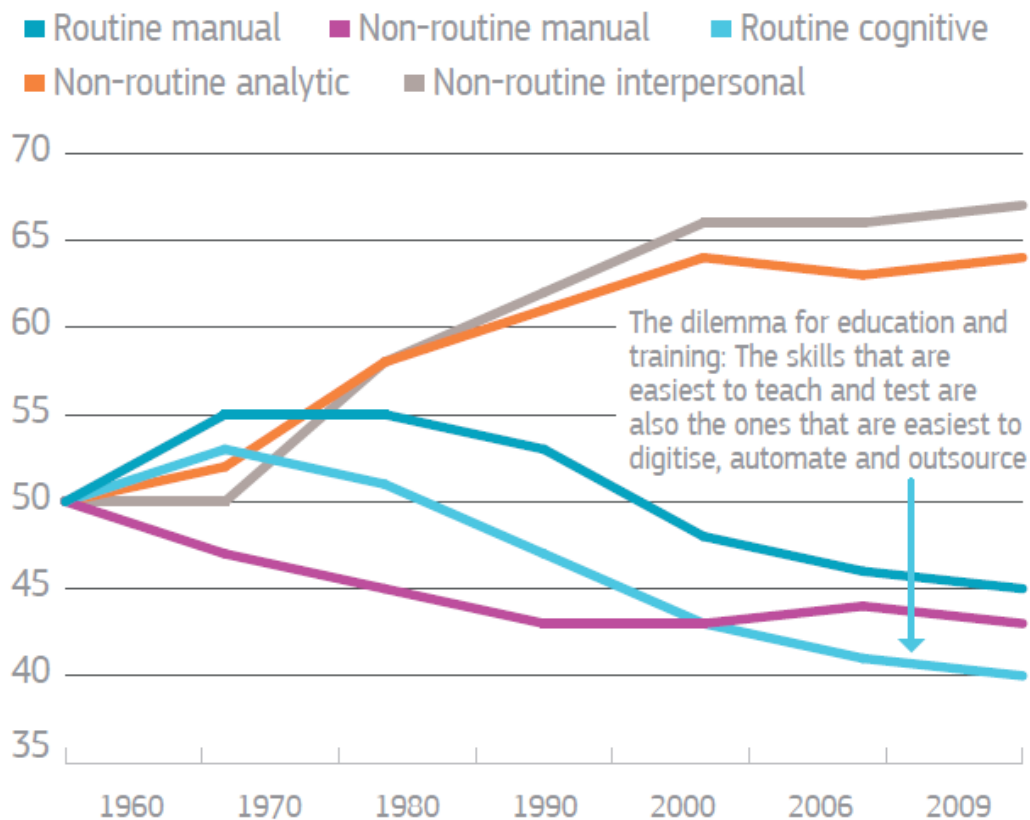
New industrial policy challenges

Europe needs to focus on its position in **global value chains** and **strategically relevant industries** (e.g., batteries)



Source: FT

The transition to a clean economy already today causes **loss in employment** and **skills challenges**



Source: OECD Skills Outlook 2013, OECD

Industrial Union in the Mining, Chemical and Energy Industry protesting against the "social blackout for entire regions" in Germany

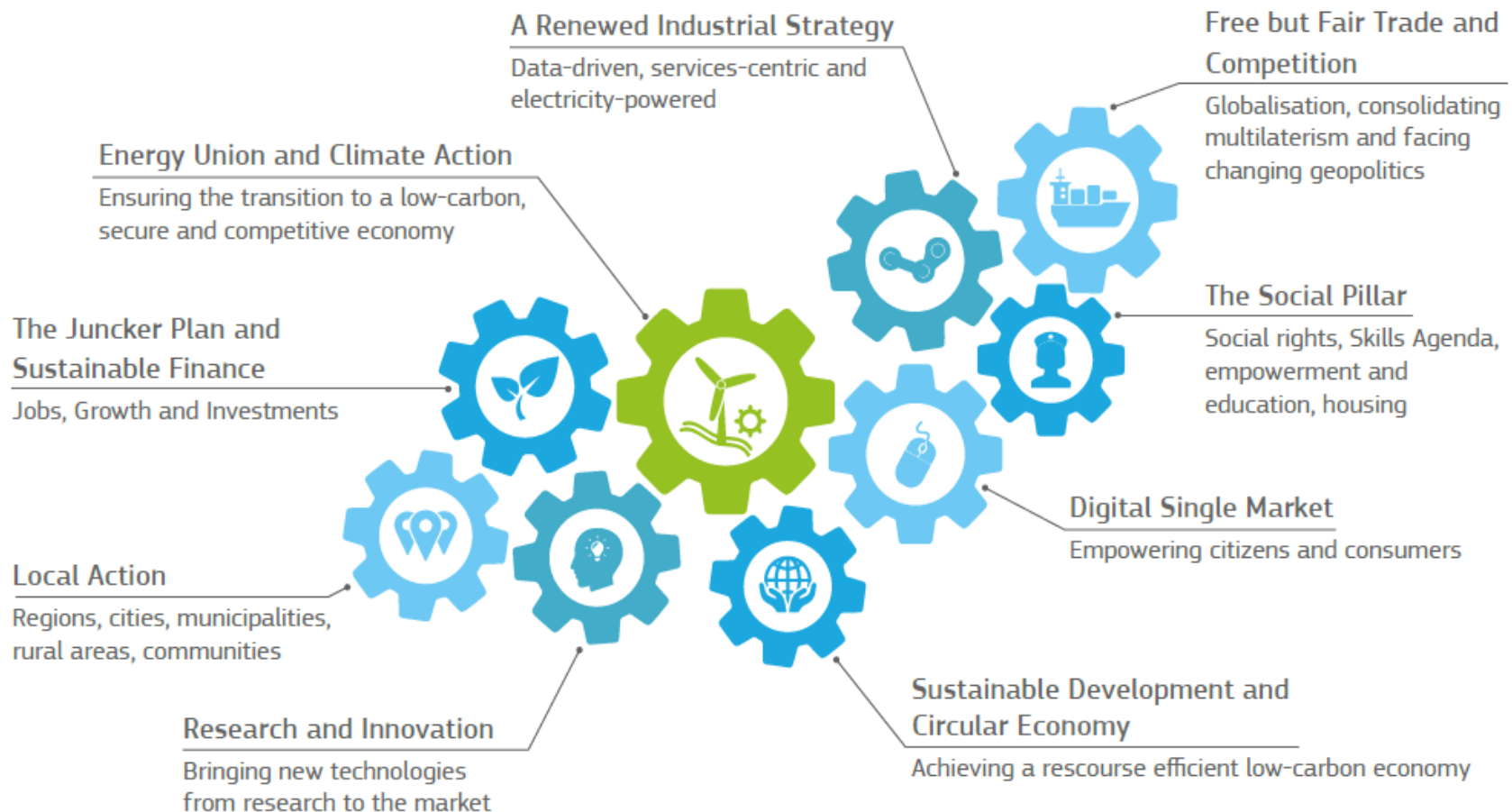


Truck drivers on strike in France



The answers given by the Juncker Commission

Building on the **Commission's new working methods**



Industrial policy: Europe catching up on battery production

HOW?



The European Commission supports efforts of the European industry, Member States and the European Investment Bank, to establish a competitive manufacturing chain, capture sizeable markets and boost jobs, growth and investment across Europe.

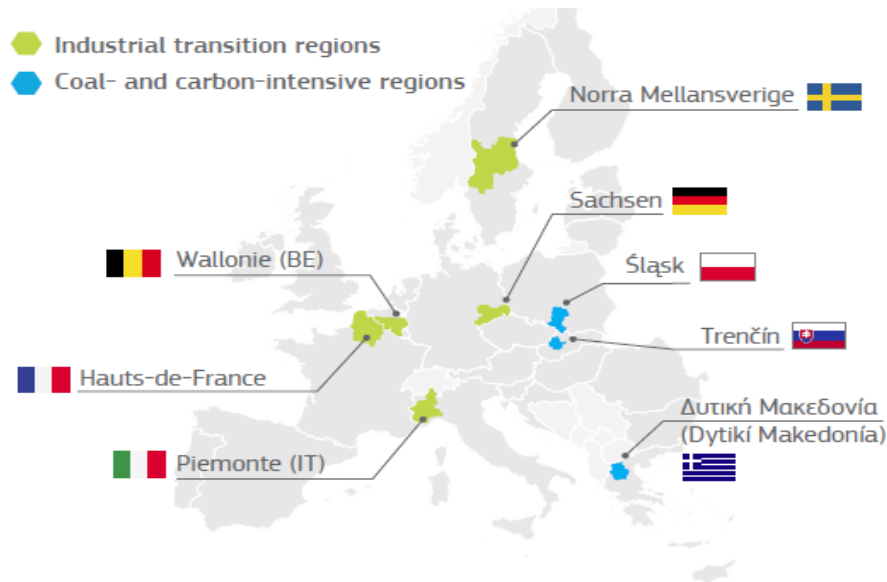


- Project team approach
- Industry-led comprehensive workstream with more than 120 European (and non-European) stakeholders representing the whole value chain
- Dialogue with EU Member States

BATTERY ACTION PLAN

- Securing the supply of raw materials
- Supporting projects covering different segments of the battery value chain, including cell manufacturing
- Research and innovation to support a competitive batteries value chain
- Making Europe the global leader in safe and sustainable battery technology
- Developing and strengthening a skilled workforce
- Creating and enforcing an enabling and regulatory framework that is supportive of battery demand

Leaving no one behind in the transition to a clean economy: the European Pillar of Social Rights, Skills Agenda, and regional policies



OBJECTIVE:

the Skills Guarantee will help low-skilled adults to acquire a minimum level of literacy, numeracy and digital skills.



DELIVERY: adults will receive:

- a skills assessment, giving them the chance to identify their existing skills and their upskilling needs;
- a tailored learning offer, adapted to the specific needs of the individual and of local labour markets;
- opportunities for the validation and recognition of the skills they acquire.

Skills Agenda



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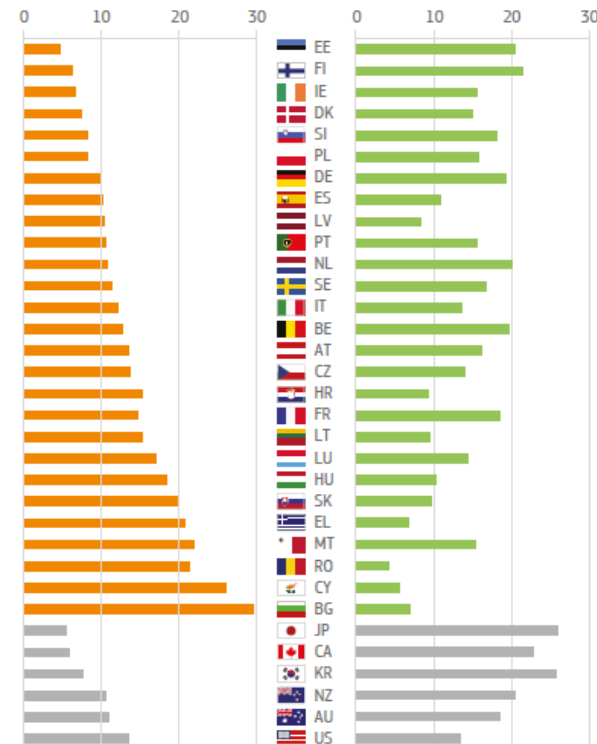


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Few Europeans are among the top performers in science, reading and mathematics worldwide

% of 15 year olds who are low achievers in science, reading and maths % of 15 year olds who are top performers in science, reading and maths



Source: OECD PISA 2015

Interconnecting electricity and gas markets

Connecting electricity markets

Iberian Peninsula

SPAIN-FRANCE UNDERGROUND ELECTRICAL INTERCONNECTION ✓

€255 M EU contribution
€350 M EIB loan

BISCAY BAY ELECTRICITY PROJECT ✓

+€5.1 M for technical studies

3RD PORTUGAL-SPAIN GAS INTERCONNECTION

+€0.5 M for engineering studies



Poland-Lithuania gas interconnection

€10.6 M for studies
€295 M for works

Malta/Sicily electricity interconnector

€20 M EU contribution ✓

Connecting gas markets

Number of supply sources a country may access through infrastructure (at least 5% share)



Presence of Liquefied Natural Gas Terminal(s)

Today

After 2022



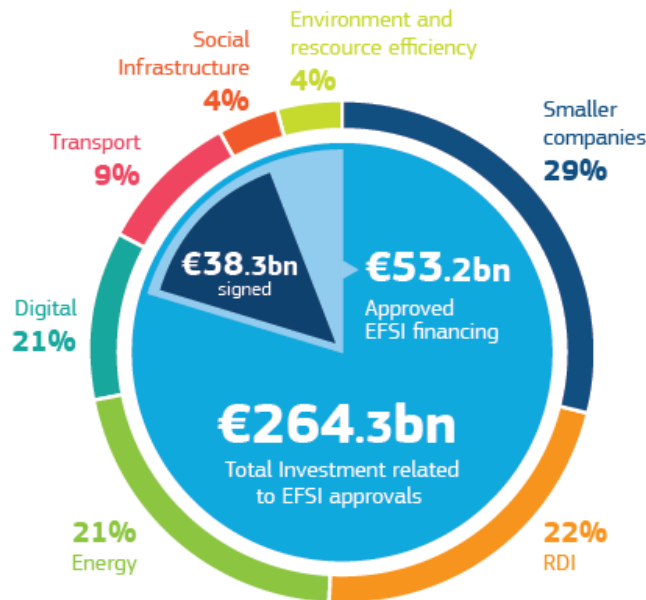
Supply Sources: Azerbaijan (new source), Algeria, Libya, Norway, Russia, EU Production, LNG (treated as one source)

Facilitating the necessary investments in the energy transition



European Investment Bank

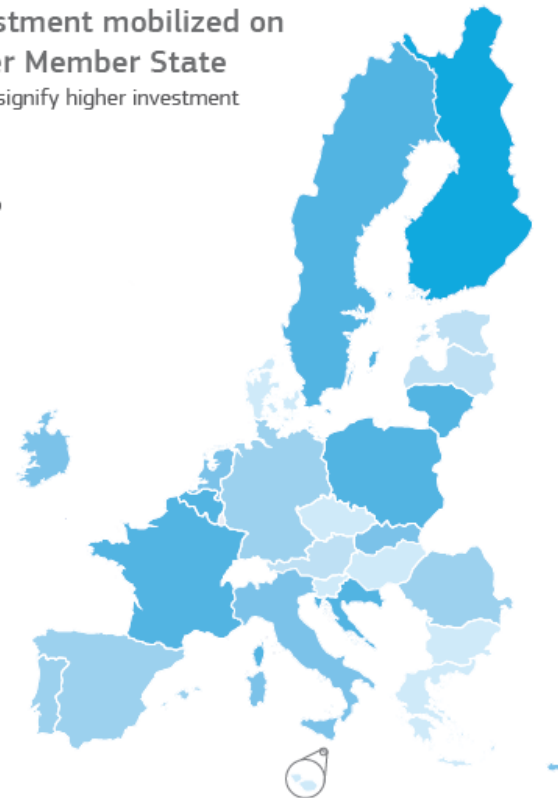
EFSI investment by sector*



*based on approved operations

EFSI investment mobilized on energy per Member State
 Darker colour signify higher investment

- 0.0 - 0.05%
- 0.06-0.1%
- 0.11-0.2%
- 0.21-0.3%
- 0.31-1%
- >1%



EFSI investment mobilised (€) based on total energy spending per Member State in % of GDP (December 2017), source: EIB

The legacy of the October 2014 European Council has been delivered

CUT GREENHOUSE GAS EMISSIONS BY AT LEAST 40%



(Compared to 1990)

Target set

ETS REFORM



Implemented

INCREASE THE SHARE OF RENEWABLES IN THE ENERGY MIX TO AT LEAST 27%



Target set to 32%

EFFORT SHARING DECISION



Implemented

IMPROVE ENERGY EFFICIENCY BY AT LEAST 27%



2020
0



(Compared to the "Business-as-usual" scenario)

Target set to 32.5%

ENERGY UNION GOVERNANCE



Tabled

IMPLEMENT CRITICAL PROJECTS OF COMMON INTEREST IN THE GAS SECTOR

On Track

2020 INTERCONNECTION TARGET 10%



On Track

At least 25% of the proposed next EU budget contributing to climate objectives

ENERGY



With a budget of **€8.7 billion**, CEF will help **complete the Energy Union** and support Europe's **clean energy transition** following the *Clean Energy for all Europeans* package, in order to:

- Make the EU's energy systems better **interconnected** and more resilient to possible supply disruptions, as well as **smarter** and more **digitalised**.
- Foster for the first time Member State cooperation on cross-border renewable energy technology projects - ensuring a **lower cost for renewables integration** and enabling the strategic uptake of **renewables technologies**.
- Back key trans-European energy network **infrastructures**, allowing for further **integration of the internal energy market**, boosting **interoperability** of networks across borders and sectors, and facilitating the overall **decarbonisation** of our economy.

TRANSPORT



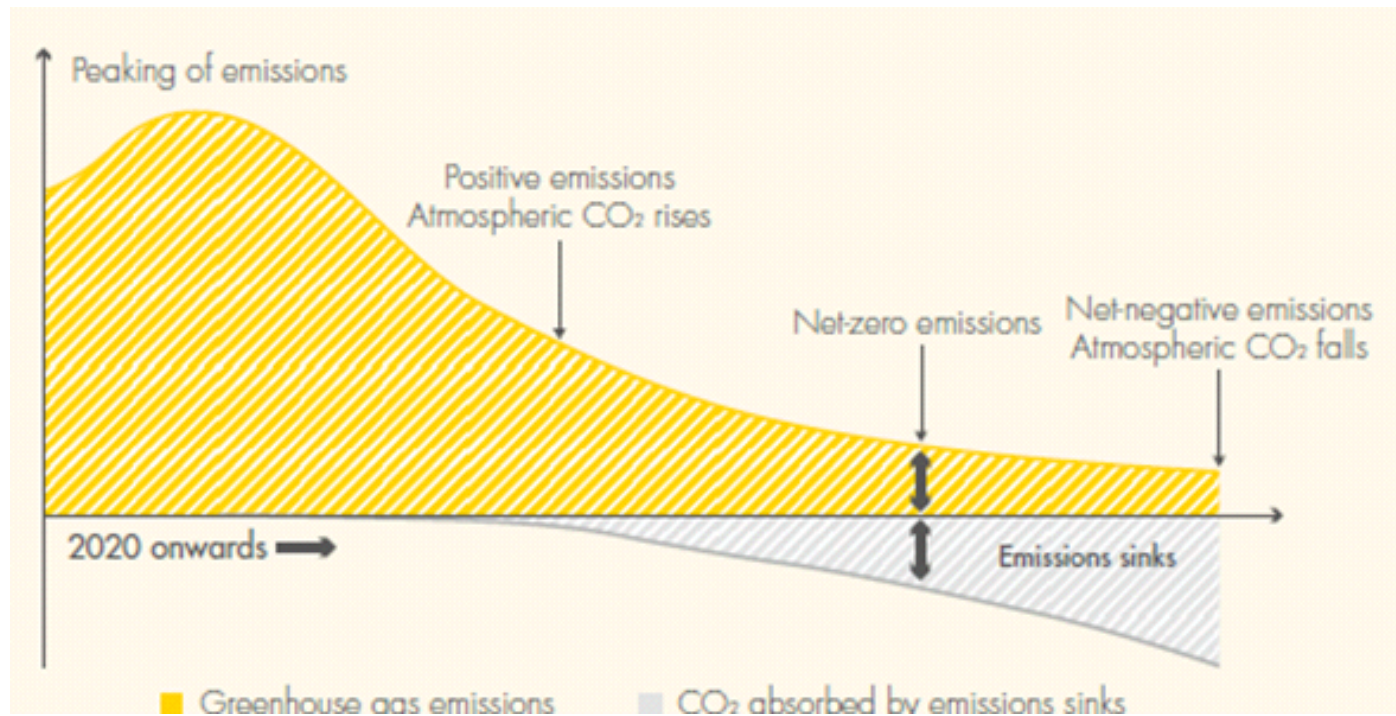
With a total budget of **€30.6 billion**, CEF will finance strategic transport projects in order to:

- Advance the work on the European transport network, while helping the EU transition towards **connected, sustainable, inclusive, safe and secure mobility**.
- **Decarbonise transport**, e.g. by creating a European network of charging infrastructure for alternative fuels and by prioritising of environmentally friendly transport modes.
- Invest in transport projects offering high-added value in cohesion countries, with a dedicated budget of €11.3 billion.
- Adapt sections of the transport network for **civilian-military dual-use** (for instance as regards technical requirements on dimensions and capacity) with a dedicated budget of **€6.5 billion** in the context of the European Defence Initiative.

Snapshot: The Connecting Europe Facility

Preparing for the long term

The Paris Agreement calls for an **early peak in emissions**, then a **decline to net-zero emissions** in the second half of the century



Source: Shell schematic

Our mandate: Unprecedented **room for manoeuvre** regarding **scope, time-frame, methodology**, etc.

Conclusions – 22 March 2018

II. OTHER ITEMS

Paris Agreement

6. The European Council invites the Commission to present by the first quarter of 2019 a proposal for a Strategy for long-term EU greenhouse gas emissions reduction in accordance with the Paris Agreement, taking into account the national plans.

- "*by the first quarter*" = within the current political/institutional cycle
- "*invites*" = different from detailed and prescriptive October 2014 EU CO conclusions
- "*proposal*" = to be discussed with Member States
- "*Strategy*" = need for strategic, cross-sectoral mix of instruments and technologies
- "*for long-term EU*" = the needed massive investments require long-term planning
- "*in accordance with Paris Agreement*" = not disconnected from the global action
- "*taking into account national plans*" = no EU top-down approach—rather in synergy with Member States

A European vision is more than a set of targets and figures

20/20/20 by 2020 | 40/30/27 by 2030 | XX/XX/XX by 20XX | YY/YY/YY by 20YY | ZZ/ZZ/ZZ by 20ZZ ...

"I want to reform and reorganise Europe's energy policy into a new European Energy Union."
Jean-Claude Juncker, Political Guidelines, 15 July 2014

"The Paris Agreement is a key element for the modernisation of the European industry and economy."
European Council Conclusions, June 2017

"I strongly believe in the potential of green growth. I want Europe to become the world number one in renewable energies. [...]"

A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change, 22 October 2014

"It is up to us to ensure that the handwriting of the European Social Model is clearly visible in everything we do."
Ibid.

"The Paris Agreement is the first of its kind and it would not have been possible were it not for the European Union. Today we continued to show leadership and prove that, together, the European Union can deliver."

Jean-Claude Juncker, 10 October 2016

European Parliament approval of the Paris Agreement ratification – in the presence of European Commission President Jean-Claude Juncker, 4th of October 2016



Europe's vision for the long term on climate and Energy:

A Europe that protects the planet

- The planetary boundaries: net zero emissions, Sustainable Development Goals

A Europe that defends its people

- No one left behind in the transition: citizens, workers, regions

A Europe that empowers its economy

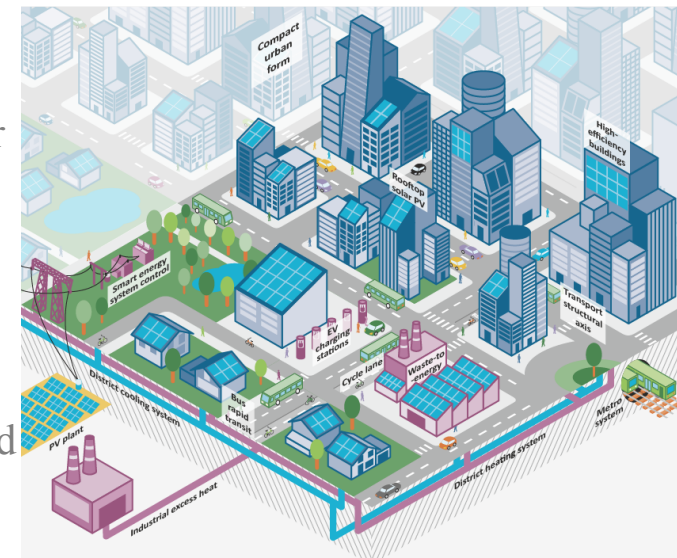
- New business models, jobs, growth and investments, sector integration

Integrating different technologies and energy use sectors is a challenge – Innovation is a no regret

option Can Europe electrify all forms of mobility or are different technologies and fuels needed?

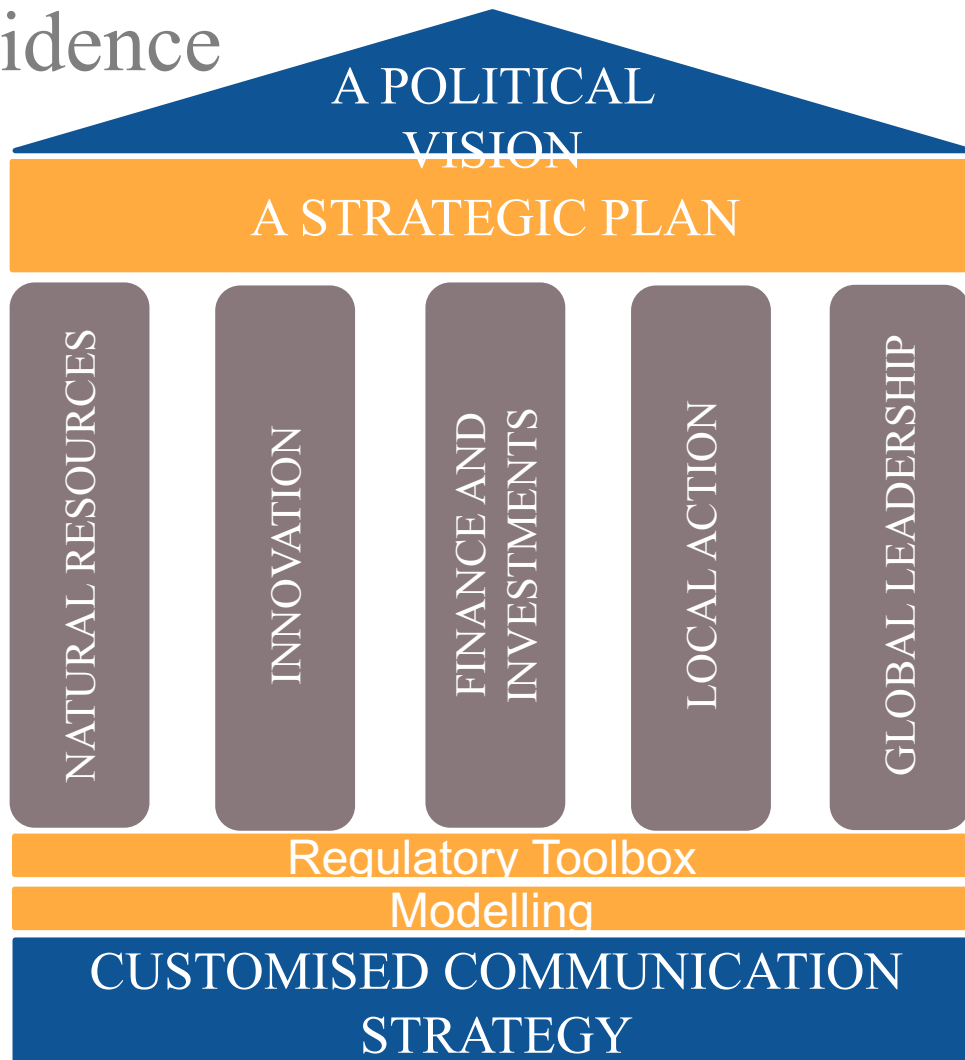
- Can Europe electrify heating in buildings across the continent or are different technologies and fuels needed?
- How many houses would need to be renovated (isolated) to electrify heating?
- Which infrastructures will be left behind as stranded assets if Europe electrifies all sectors?
- If Europe cannot fully electrify, which other fuels are needed and how do we source / import them?
- Which role will digitalisation, Big Data, Blockchain and Artificial Intelligence play in sector integration?

➤ These decisions have **implications on social acceptance** of the transition, jobs, **competitiveness**, Europe's external relations, and infrastructure investments



Source: IEA

A comprehensive **European strategy** backed by good evidence



Strategic Guidelines:

- All sectors should be involved
- Several possible pathways and options towards net-zero emissions, none preferred at this stage – and No new targets
- New technologies, policy drivers and some behavioral change will be needed
- Investment gap and its financing to be explored
- Explore contribution of other disruptive technological and economic models – from circular economy to digitalisation



Thank you for your attention

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