The European Green Deal

La *roadmap* "energia" nel *Green Deal* europeo: contrasto al riscaldamento globale e trasformazione di economia e società per uno sviluppo sostenibile, in attesa delle linee guida europee per un *(green) recovery plan*

Pavia, 21 Maggio 2020
e-Seminar

Guido BORTONI
Senior Advisor, European Commission – DG ENERGY

Piano dell'intervento e premesse

Il focus dell'intervento è il settore **ENERGIA**

Arriveremo all'**ENERGIA** per brevi zoom successivi
nell'ambito Green Deal europeo

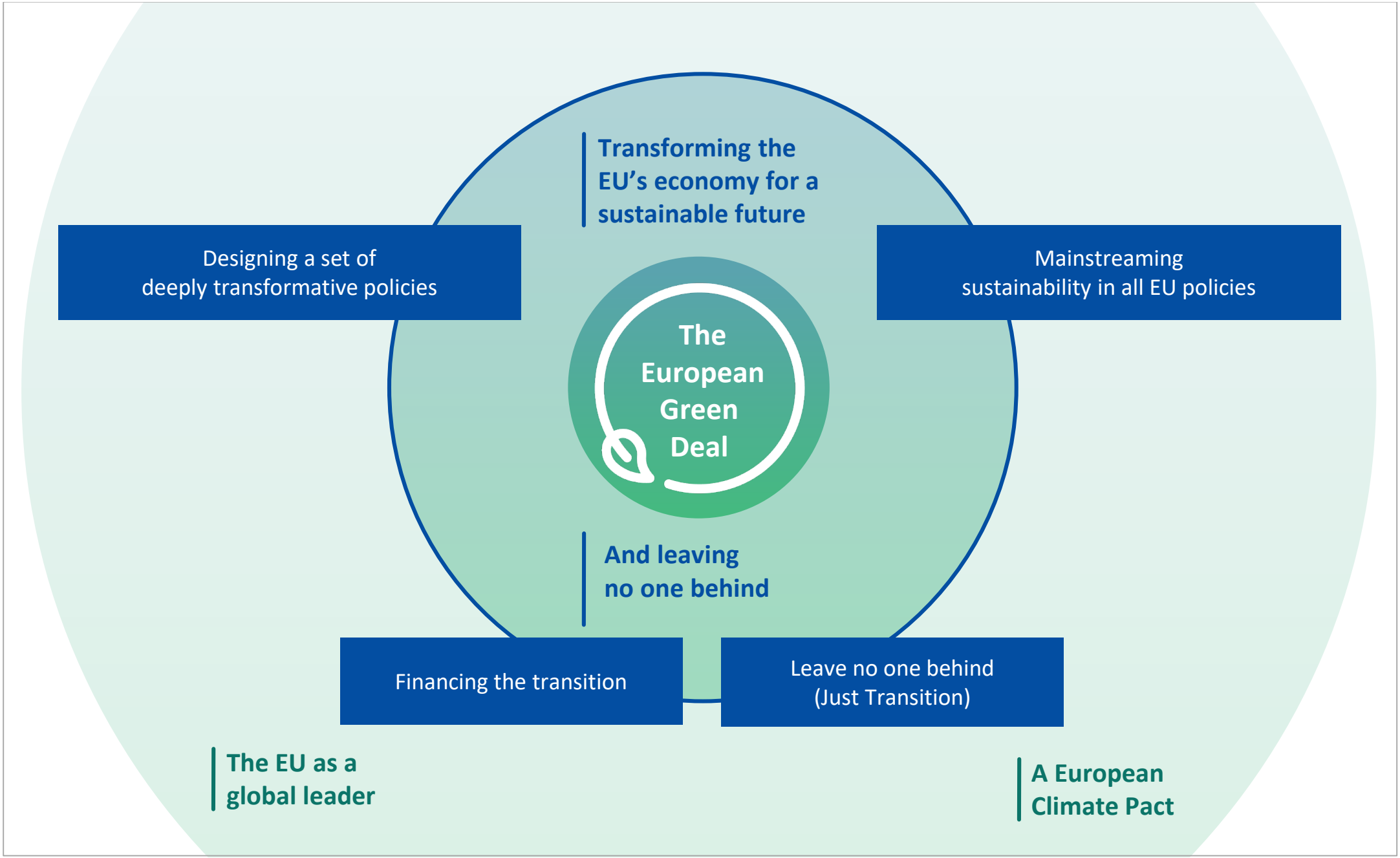
Ciò consente di mantenere un *fil rouge* all'interno di una
visione d'insieme e di sottolineare il ruolo centrale
dell'**ENERGIA** nella trasformazione EGD

Le note che seguono sono tratte integralmente da documenti
pubblicati da parte della Commissione europea
o da materiale già reso noto al pubblico

Per tale ragione le note sono in lingua inglese, mentre
l'intervento a commento sara' in italiano

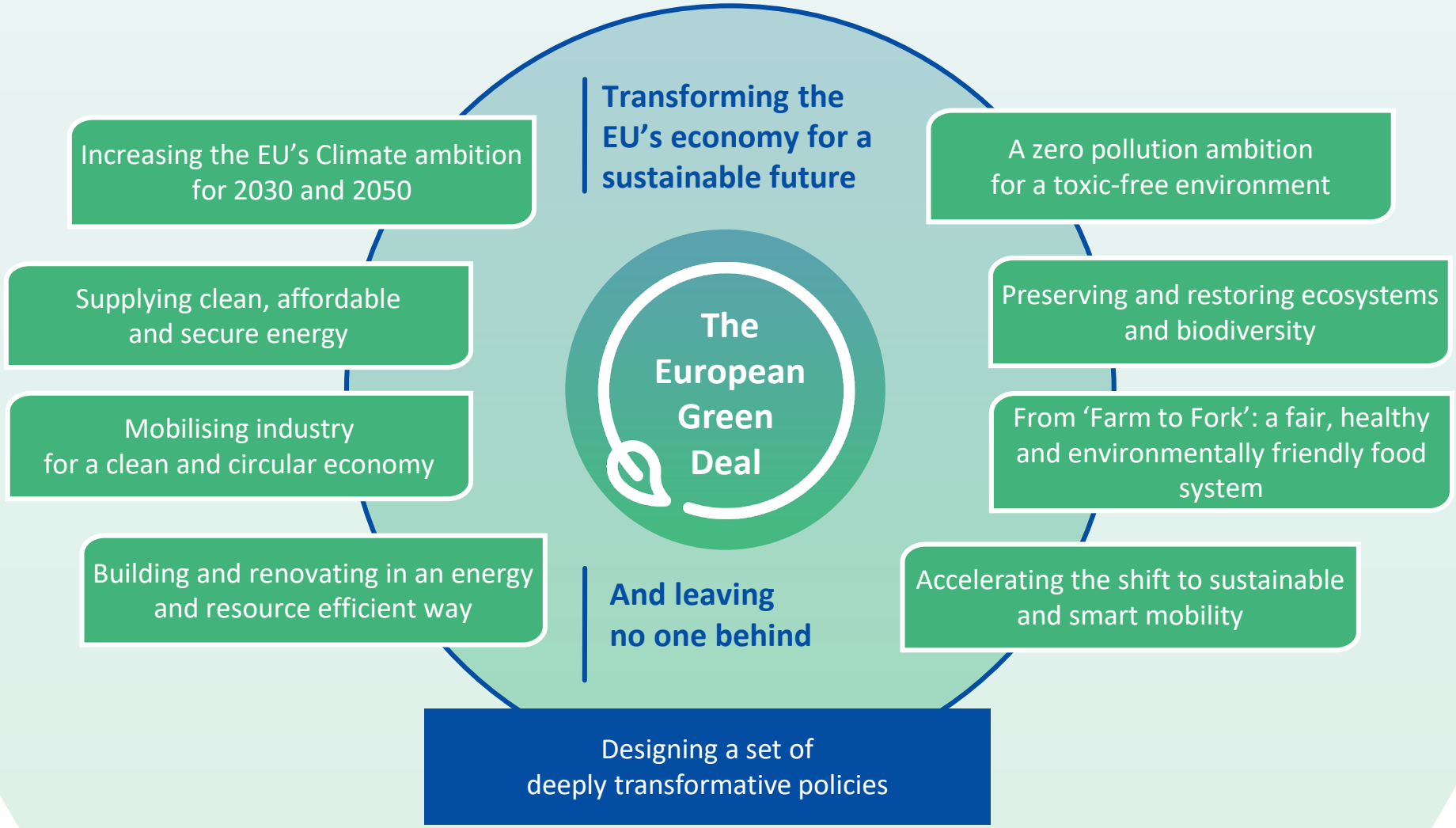
L'intervento a commento resta nella responsabilità
dell'oratore. I relativi contenuti in forma orale, pertanto, non
impegnano in alcun modo la Commissione europea

The European Green Deal



Eight priorities for transformative policies

European Commission



The European Green Deal

European Commission

Increasing the EU's Climate ambition for 2030 and 2050

- European '**Climate Law'** enshrining the 2050 climate neutrality objective in legislation by March 2020
- **Comprehensive plan** to increase the EU's climate target for 2030 to at least 50% and towards 55% in a responsible way by October 2020
- **Review and revise where needed all relevant legislative measures to deliver on this increased ambition** by June 2021
- Proposal for a **revision of the Energy Taxation Directive** by June 2021
- **Carbon border adjustment mechanism** for selected sectors by 2021
- A new EU **Strategy on Adaptation** in 2020/2021

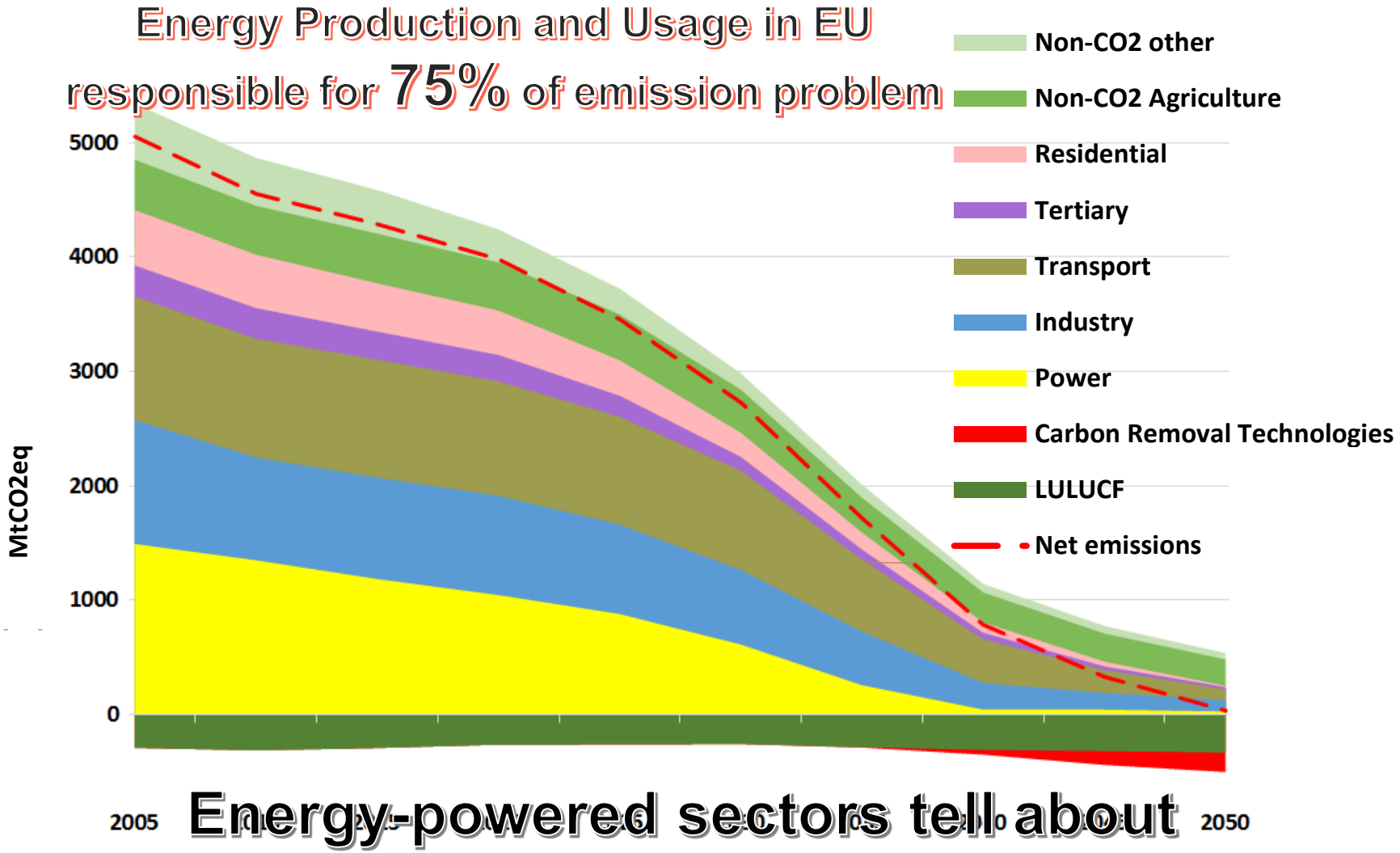
Designing a set of deeply transformative policies

The EU as a global leader

A European Climate Pact

Achieving climate neutrality by 2050 requires decarbonisation in all sectors *and* negative emissions

European Commission



The European Green Deal

European Commission

Supplying clean, affordable and secure energy

Building and renovating in an energy and resource efficient way

Designing a set of deeply transformative policies

- Assess the ambition of the final **National Energy and Climate Plans** by June 2020
- Strategy for **smart sector integration** in 2020
- **Renovation wave** for the building sector in 2020 **doubling the renovation rate**
- Review and revise where needed the **Renewable Energy and Energy Efficiency Directive** by June 2021
- **Offshore wind** initiative in 2020
- Review the **TEN-E Regulation**

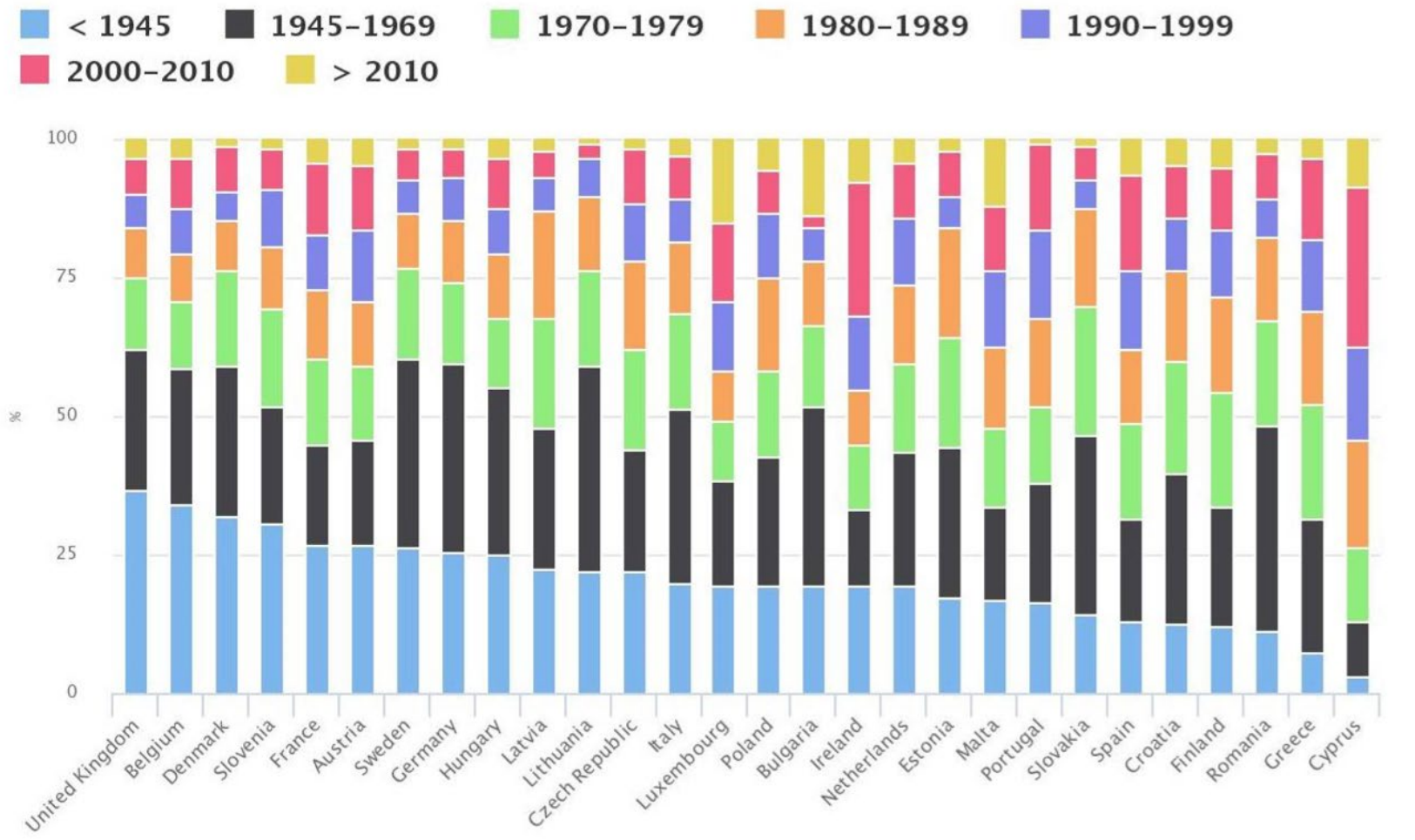
The EU as a global leader

A European Climate Pact

An old building stock to be urgently renovated

European Commission

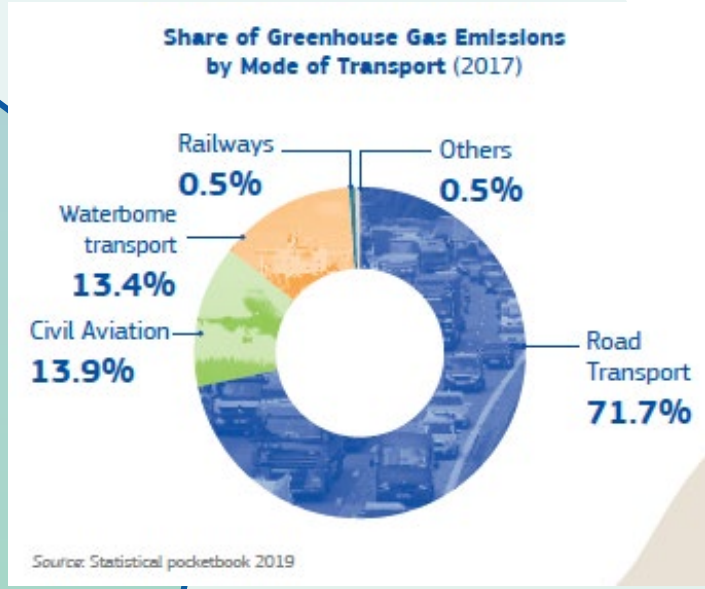
Figure 37: Breakdown of residential building by age category (2014)



Source: Building Stock Observatory[240].

Transport accounts for a quarter of the EU's emissions, and still growing

European Commission



- Strategy for **Sustainable and smart mobility** in 2020
- Revise the **CO2 emissions performance legislation** for light duty vehicles by June 2021
- **Extend EU's Emissions Trading** to the maritime sector, and to reduce the free allowances for airlines by June 2021
- Support **public charging points: 1 million by 2025**
- Boost the production and supply of **sustainable alternative fuels** for the different transport modes
- Review the **Alternative Fuels Infrastructure Directive** and the TEN-T Regulation in 2021
- More **stringent air pollutant emissions standards** for combustion-engine vehicles

Accelerating the shift to sustainable and smart mobility

Designing a set of deeply transformative policies

The EU as a global leader

A European Climate Pact

The Just Transition Mechanism

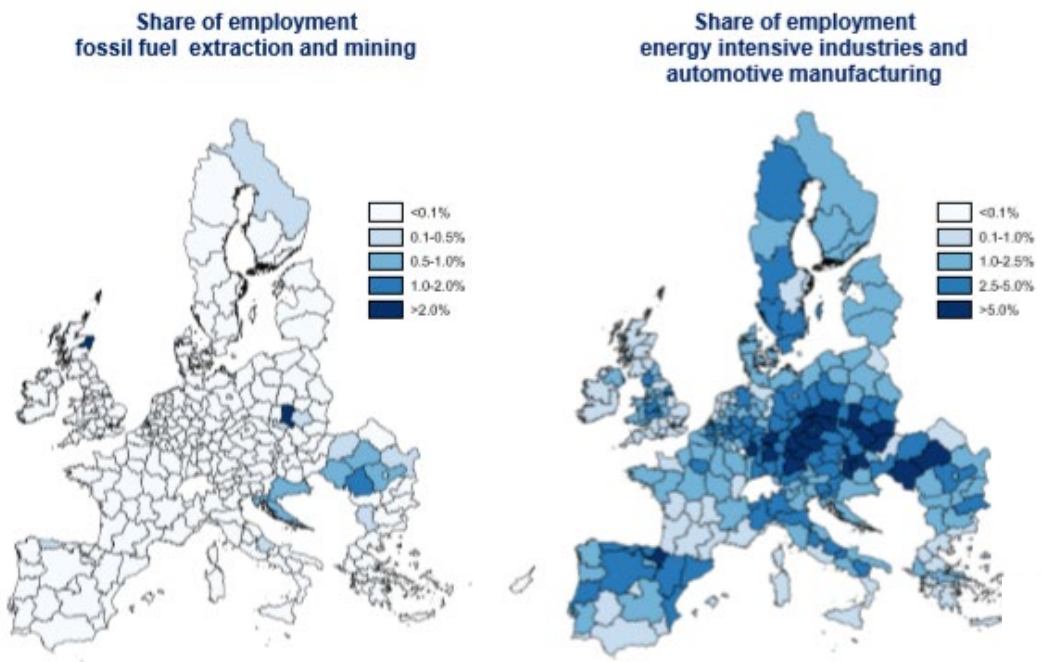


Figure 5. Regional employment in fossil fuel extraction and energy intensive industries (NUTS2 level)

IMPACT OF THE TRANSITION TO CLIMATE NEUTRALITY EMISSIONS ECONOMY ON JOBS

The climate and energy has the **potential to create more than 1 million additional jobs**

TODAY: 4 MILLION "GREEN JOBS"

BY 2050:

POTENTIAL INCREASE OF JOBS

CONSTRUCTION

AGRICULTURE

RENEWABLE ENERGY SECTOR

JOB TRANSITIONS

POTENTIAL DECREASE OF JOBS

MINING & EXTRACTION

SERVICES & ENERGY-INTENSIVE SECTORS:
NO MAJOR INCREASES OR DECREASES EXPECTED,
BUT SEVERAL JOBS WILL GRADUALLY BE
TRANSFORMED

The European Green Deal

(as per Annex I Com 640 11 Dec 2019)

European Commission

Climate ambition	
Proposal on a European 'Climate Law' enshrining the 2050 climate neutrality objective	March 2020
Comprehensive plan to increase the EU 2030 climate target to at least 50% and towards 55% in a responsible way	Summer 2020
Proposals for revisions of relevant legislative measures to deliver on the increased climate ambition, following the review of Emissions Trading System Directive; Effort Sharing Regulation; Land use, land use change and forestry Regulation; Energy Efficiency Directive; Renewable Energy Directive; CO_2 emissions performance standards for cars and vans	June 2021
Proposal for a revision of the Energy Taxation Directive	June 2021
Proposal for a carbon border adjustment mechanism for selected sectors	2021
New EU Strategy on Adaptation to Climate Change	2020/2021
Clean, affordable and secure energy	
Assessment of the final National Energy and Climate Plans	June 2020
Strategy for smart sector integration	2020
'Renovation wave' initiative for the building sector	2020
Evaluation and review of the Trans-European Network – Energy Regulation	2020
Strategy on offshore wind	2020
Launch of the European Climate Pact	March 2020

The European Green Deal

Focus on ENERGY

Timetable under review

Focus is following hereafter…

The Smart Sector Integration is a new Chapter of the 20-year old story of ENERGY SECTOR INTEGRATION

European Commission

An EU Smart Sector Integration Strategy

A Roadmap is published since 11 May 2020 to inform citizens and stakeholders about the Commission's work…

… to allow them to provide feedback and to participate effectively in future consultation activities…

…on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have.

INDICATIVE PLANNING FOR THE COMMUNICATION

Q2 2020

The Smart Sector Integration (2)

This initiative is essentially about creating a smarter, more integrated and more optimised energy system, in which all sectors can **fully contribute to decarbonisation**, including those where progress has been slow to date (transport, certain parts of industry, buildings).

Achieving a **well-integrated energy system** by better **linking the different sectors**, electricity, gas, buildings transport and industry will be necessary to deliver in a timely and cost-effective manner on the ambitions of the Green Deal.

It will also provide increased opportunities for investment and growth for EU industries and jobs for citizens. The initiative should allow new low-carbon energy carriers, such as **hydrogen**, to emerge and facilitate the progressive **decarbonisation of the economy, including the decarbonisation of the gas sector**.

The Smart Sector Integration (3)

This can be done by **creating new "links" in our energy system**, exploiting thus possible synergies between sectors.

First, there are opportunities to **increase the use of** (renewable and low-carbon) **electricity** via electrification of sectors that currently still rely on fossil fuels. Examples are the use of electric vehicles in transport, or of heat pumps for heating buildings.

Second, fossil-based gases and fuels need to be progressively replaced by **renewable and decarbonised gases** and fuels, especially in hard-to-decarbonise sectors such as air transport or certain industrial processes. **Hydrogen** produced from renewable electricity will play a key role in this context, together with the replacement of natural gas by **biomethane** produced from agricultural wastes, achieving thus a **progressive decarbonisation of the economy, including of the gas sector**. Current market rules do not allow this andwould need to be adapted.

The Smart Sector Integration (4)

European Commission

Third, our energy sector should become more "circular" and as **energy efficient** as possible in line with the energy efficiency first principle. This is not only about reducing our consumption, but also about the overall efficiency of our energy system. An example is the use of industrial waste heat or waste heat from data centres to heat buildings, for instance through a district heating network.

This integration of our energy system is necessary if we want to achieve a deep but also cost-effective decarbonisation of our economies. It will build a more decentralised and digital energy system, in which consumers are empowered to make their energy choices.

The Smart Sector Integration (5)

Actions could include non-legislative measures, as well as possible legislative measures to be further assessed in the context of future legislative reviews.

Actions could be grouped in five broad areas:

1. building a more circular energy system, making use of various waste resources for energy purposes, and fully implementing the “energy-efficiency-first” principle

2. accelerating the transition to a largely renewables-based power system and a deep electrification of end-use sectors

3. promoting renewable and decarbonised gases, notably hydrogen, and low-carbon liquids in hard-to-decarbonise sectors

4. upgrading market rules, including in gas markets, to enable the integration of all decarbonised energy sources

5. supporting a more integrated and digitalised energy infrastructure and its efficient use.

Be prepared for the COM end of June and large consultation in autumn

The TEN-E revision (1)

In the energy sector, one of the key aims is to ensure that our energy infrastructure is fit for the purpose of achieving climate neutrality. In this sense, the Green Deal highlights the importance of smart infrastructure in this transition and specifically identifies the need to review and update the EU regulatory framework for energy infrastructure, including the Regulation (EU) No 347/2013 on guidelines for trans-European energy infrastructure (the "**TEN-E Regulation**"), to ensure consistency with the 2050 climate neutrality objective.

This revision of the TEN-E Regulation will also address the new policy ambition of the European Green Deal inter alia by integrating a significant increase in renewable energy in the European energy system and by putting the energy efficiency first principle into practice.

The TEN-E revision (2) – ex. from consultation

European Commission

How would you rate the importance of the following objectives for trans-European energy infrastructure networks?

- A competitive and properly functioning integrated energy market
- Increased resilience of energy infrastructure against technical failures, natural or man-made disasters, and the adverse effects of climate change and threats to its security
- Consumer empowerment - making sure consumers' interests are considered in decisions related to energy infrastructure
- Secure and diversified EU energy supplies, sources, and routes
- Integration of renewable energy sources into the grid
- Increase cross-border interconnections and deepen regional cooperation to transport energy from renewablesources where it is most needed
- Giving priority to energy efficiency (putting the ‘Energy efficiency first’ principle in practice)
- Achieving the EU’s decarbonisation objectives for 2030 and 2050, including climate neutrality under the European Green Deal
- Increased digitalisation of the energy infrastructure (e.g. Smart Grids) Energy system integration and sector coupling (integration of the different energy sectors and beyond)

The TEN-E revision (3) – ex. from consultation

European Commission

Which of the following infrastructure categories do you consider relevant for the regulatory framework on trans-European energy networks?

- Electricity infrastructure (transmission lines and storage)
- Grids for offshore renewable energy
- Smart electricity grids
- Smart gas grids
- Natural gas infrastructure (pipelines and storage)
- Liquefied Natural Gas (LNG) terminals
- Dedicated hydrogen (H2) networks
- Infrastructure for the integration of renewable and carbon neutral gases
- Power-to-gas installations
- CO2 networks (for transporting CO2)
- Geological storage of CO2

The TEN-E revision (4) – ex. from consultation

European Commission

Which features do you consider the most important for a project of common interest (PCI) as part of trans-European energy network?

- Integration of renewable energy sources into the grid
- Contribution to greenhouse gas emissions reduction
- Security of supply
- Market integration (e.g. to improve infrastructure and increase system flexibility)
- Increase competition in the market
- Innovation
- Contribution to increase the energy efficiency of the energy system
- Environmentally sound implementation, i.e. compliance with the relevant regulations especially in the area of environmental impact assessment, water protection, nature conservation and air quality
- Generation of direct benefits to the local communities

In sight of post-COVID-19 **MEASURES**

Questions under discussion:

- Should we have a RECOVERY PLAN for ENERGY too?
- How does the Recovery fit the Green Deal purposes for ENERGY?
- Could ENERGY help the Recovery, more than asking for subsidies as other sectors?
- Say in energy: subsidies or investments?
- What about celerity? And intensity?
- A real green recovery instrument?
- Or does the Recovery impose stop/go on Green Deal?

A couple of tweets to reflect upon

Fatih Birol

@IEABirol

Analysis by @IEA shows Europe's emissions in 2020 will fall to the lowest level since the late 1950s. To avoid a big rebound, we need sustainable recovery plans based on smart energy policies.

Great to discuss this today w/ ES Deputy PM @TeresaRibera & LU Minister @ClaudeTurmes. pic.twitter.com/zqz3p2UZ

11/05/2020, 16:22

Fatih Birol

@IEABirol

Global sales of conventional cars are set for a historic drop of 15% in 2020 due to the #Covid19 crisis, but sales of electric cars are on track to rise to a record 2.3 million, driven by supportive government policies.

More in this @IEA commentary → iea.li/3g1vySf pic.twitter.com/HLKzzh5xVF

AND MANY MANY OTHER THOUGHTS

Queste ed altre considerazioni fanno di questo Seminario solo la prima puntata delle *policies* che devono essere decise nei giorni a seguire sia a livello UE che a quello nazionale…

Forse utile prevedere un Seminario "2" che faccia il punto su *EUROPEAN GREEN DEAL* AI TEMPI DEL *RECOVERY* (quando adottato)

GRAZIE PER L'ATTENZIONE

Guido BORTONI
Senior Advisor, European Commission – DG ENERGY