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State of the European Green Deal

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Roundtable on
Climate Change and
Sustainable Transition

Guiding structure

- Where are we coming from? Short history of the package
- EGD Map & Chart
- Key files (ETS, Effort Sharing, CBAM, Hydrogen, Sustainable finance)
- Financing of the green transition
- Impact on different sectors and consumers
- Institutional architecture and next steps (process)

Short history - EU Strategies

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Lisbon Strategy (2000-2010) Innovation, sustainability, social cohesion

- Kyoto Protocol to the UNFCCC 1997

Europe 2020: smart, sustainable and inclusive growth

- Emissions Trading System (20/20/20 target)
- DG CLIMA est. 2009
- INDC to Paris Agreement 2014

J.C. Juncker Commission (2014 – 2019)

- Paris Agreement 2015
- Energy Union
- Clean Planet for All
- Waste Package (Circular economy action plan)

U. v. der Leyen Commission (2019-2024) Climate neutrality enshrined in the Climate Law.

- European Green Deal

Fit for 55 clusters

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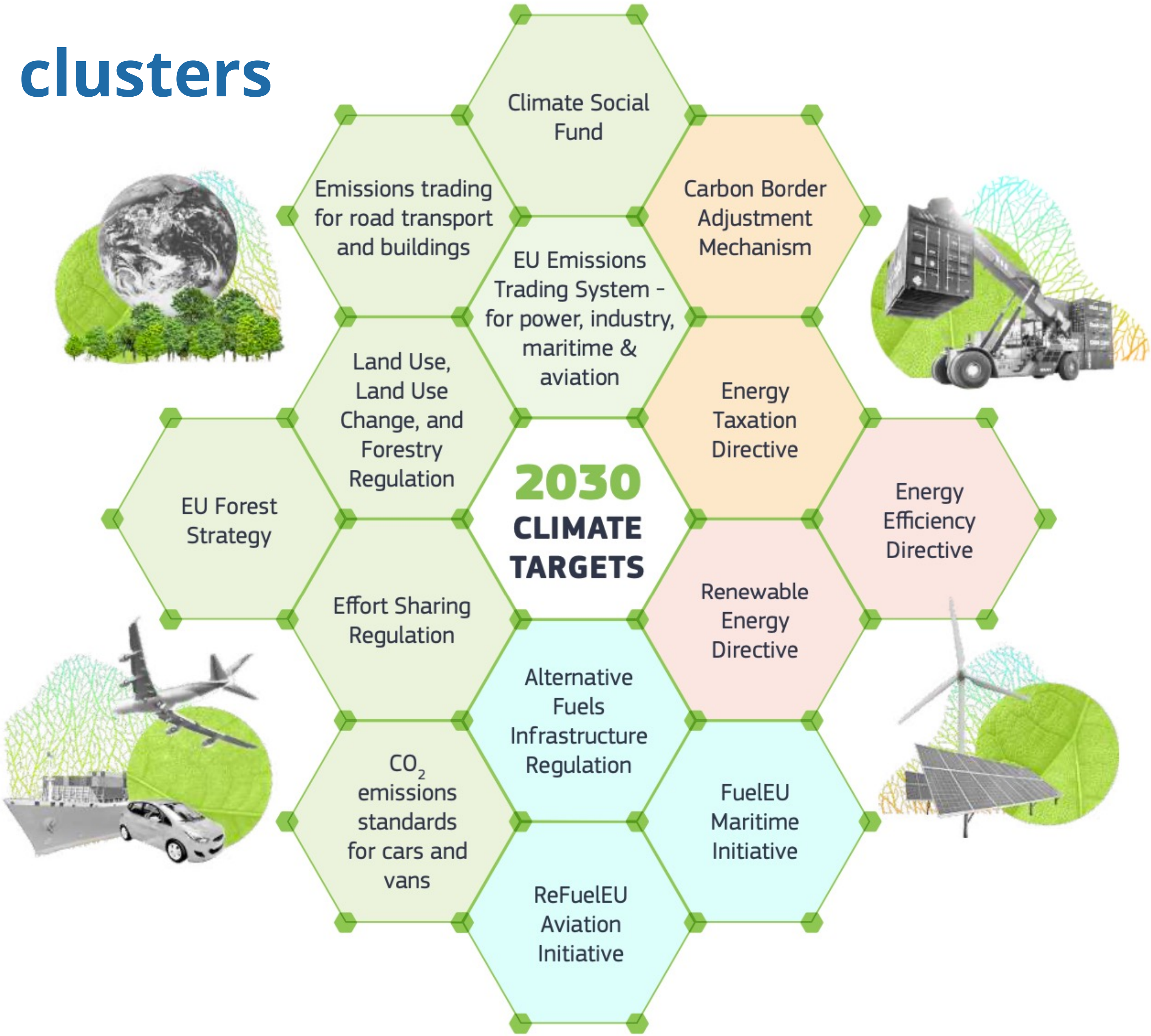

Fit for 55 mapping of interactions

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<tr><td></td><td></td><td></td><td colspan="2">Revision of Alternative Fuels Infrastructure</td><td></td></tr>
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<tr><td></td><td></td><td></td><td colspan="2">ReFuelEU: Maritime</td><td></td></tr>
<tr><td colspan="2">Third Energy Package for Gas (Q4 2021)</td><td></td><td></td><td>Third Energy Package for Gas (Q4 2021)</td><td></td></tr>
<tr><td>Support & Financing</td><td></td><td></td><td colspan="2">Social Climate Fund</td><td></td><td></td></tr>
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Possible negotiation small packages and trade offs

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ETS / CBAM / ETD / own resources

CCfD / Hydrogen / Energy Taxation / Scope 3 / CBAM

CO_2 cars / Effort Sharing Regulation / ETS

Social Fund / Just Transition / ETS extention / redistribution of benefits

ETS / MSR / Buildings and Transport

ETS Revision

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Core elements	Proposed design in EC proposal
Ambition	61% Emissions reduction target for ETS sectors
Free Allocation	- Maximum update rate of benchmarks to 2.5% as of 2026, up from current 1.6% - Free allocation for CBAM sectors phased out by 2035
MSR	- The 24% intake rate maintained until 2030 - Buffer intake to avoid threshold effect when TNAC between 833 and 1096 million
Use of ETS Revenues	- 100% ETS revenues must be used for climate-related purposes
Modernization Fund	- An additional 2.5% of the cap is auctioned to fund the transition in MS with below average GDP per capita in 2016-18 through the Modernisation Fund
Innovation Fund	- 200 mln allowances are added to the Fund, 150 from the transport and buildings ETS - The scope of the fund includes support of project via carbon contracts for difference
New ETS for Road Transport and Buildings	- The cap of the new ETS will be set from 2026, alongside a LRF to reach 45% emissions by 2030 compared to 2005 - A price-based cost-containment mechanism will avoid price spikes - A new and separate MSR for the two sectors will start operating in 2027
Flexibility	- As the EU increases its climate ambitions and the ETS cap rapidly decreases, consideration should be given to providing installations with the flexibility to comply with their ETS obligations. - The EC proposal recognizes the potential of CCUS technologies, producers of emissions that are permanently chemically bound in a product may not have to surrender allowances. - The current revision process presents the opportunity to allow for the creation of compliance units in the EU ETS through the storage of CO_2.

CBAM

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Design Element	Proposed design in the EU Commission proposal
Trade flow coverage	- Only imports to the EU are covered.
Free allocation	- The reduction of free allocations will be implemented gradually while CBAM is phased in. - The share of free permits for the sectors affected will still be 100 % in 2025 and will gradually decline by 10 percentage points each year to reach zero in 2035.
Geographical scope / exemptions	- Countries that are part of or linked to the EU ETS (currently Iceland, Liechtenstein, Norway and Switzerland) are exempted.
Sectoral/product scope:	- Five sectors are to be covered initially: cement, steel, electricity, aluminium, fertilizers. - Covered products within these sectors include both 'simple' goods (i.e. primary materials) and more 'complex' goods (i.e. semi-manufactured goods that use primary materials as inputs). - The European Commission can add products /sectors to the list through delegated acts.
Emissions scope	- Only direct emissions (Scope 1) are covered, including emissions attributed to covered goods and those embedded in input goods deemed to be within the system boundaries of the production process.
Level of adjustment (CO_2 price):	- The level of adjustment will mirror the average auction price of EU ETS allowances each week. - Crediting of policies in the country of origin will only recognize explicit carbon pricing policies (e.g. a carbon tax or ETS), with prices paid deducted from CBAM.
Use of revenues	- The CBAM will not generate revenue in the transitional period from 2023 to 2025. - Revenue generated as of 2026 will be collected nationally by competent authorities, and the intent is that most of it will accrue to the EU budget. - No mention of earmarking of revenues for specific purposes (e.g. for climate purposes domestically or abroad).
Implementation timeline	- 2023-2025: transitional CBAM entailing no financial adjustments - 2026: Full implementation of the CBAM

Effort Sharing Regulation

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Design Element	Proposed design in the Eu Commission proposal
Emissions reduction efforts	- Current target: 29 % reduction in emissions covered by 2030 compared to 2005, coherent with a -40 % overall target for 2030. - New target: 40% reduction in emissions covered by 2030 compared to 2005, coherent with a -55% overall target for 2030. - The new targets will span from -10% to -50%. Member States with a higher GDP per capita have higher emission reduction targets.
Scope of the regulation	- The scope of the Regulation has been adjusted considering the proposed inclusion of maritime transport in Annex I of the ETS Directive. - Road transport and buildings will still be covered by the Effort Sharing Regulation, alongside their inclusion in a new emissions trading system.
Annual emissions levels	- The framework under which the Commission will set the new MS annual emission levels in the years 2023-2030 has been updated. - Given the uncertainties associated with medium term effects of the COVID-19 pandemic in the economy and the speediness of the recovery, the 2025 review will allow an adjustment of the annual emission allocations for the years of 2026 to 2030 in order to ensure that they are neither too lenient nor to stringent.
Member States updated targets	**Old vs. New targets** - Germany (-38%); (-50%) - France (-37 %); (-47,5%) - Italy (-33%); (-43,7 %) - Spain (-26%); (-37,7%) - Poland (-7%); (-17,7%) - Romania (-2%; (-23,7%)

Hydrogen

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Regulation	Key elements
Renewable energy Directive	- Binding definition for RFNBO that will apply beyond the transport sector. - Extension of the EU certification system for renewable fuels to include hydrogen. - Binding targets for long-distance and heavy-duty transport and Industry. o Transport: 2,6% of RFNBO o Industry: 50% of RFNBO in hydrogen consumption used in industry
CO_2 Standards for cars and vans Regulation	- **Indirect:** The CO_2 standards for cars and vans set technology neutral targets to reduce emissions by 2030 and by 2035. - CO_2 reduction for cars: 2025 -15%, 2030 -55%, 2035 -100% for vans: 2025 -15%, 2030, -55%, 2050 -100%.
Alternative Fuel Infrastructure Regulation	- The Alternative Fuel Infrastructure regulation will support the deployment of alternative fuels infrastructure. - One hydrogen refuelling station will be available every 150 km along the TEN-T main network and in every urban node.
EU ETS Directive	- Benchmarks review: The EU ETS proposal will include the production of hydrogen with electrolysers, making renewable hydrogen facilities eligible for free allowances.
Energy Taxation Directive	- The Energy Taxation Directive sets preferential tax rates for the use of renewable and low-carbon hydrogen for end-consumers. - Conventional fossil fuels, such as gas oil and petrol, and non-sustainable biofuels will be subject to the highest minimum rate of €10.75/GJ when used as a motor fuel and €0.9/GJ when used for heating. - The lowest minimum rate of €0.15/GJ applies to electricity - regardless of its use -, advanced sustainable biofuels and biogas, and renewable fuels of non-biological origin such as renewable hydrogen. Low-carbon hydrogen and related fuels will also benefit from that same rate for a transitional period of 10 years.

Social fund

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Design Element	Proposed design in the Eu Commission proposal
Scope	- Mitigate the costs for those most exposed to fossil fuel price increases.
Social and Climate Plans	- Each Member State shall submit to the EC a Social Climate Plan, together with the update to the integrated national energy and climate plan. Milestones and targets set out in their plans should cover in particular: o Energy Efficiency o Building renovation o Zero- and low-emission mobility and transport o Greenhouse gas emissions reductions o Reduction in the number of vulnerable households.
Funding	- 23,7 billion for the period 2025-2027 - 48,5 billion for the period 2028-2032 - € 72.2 billion in total
Support	- Support households, transport users, and micro-enterprises affected by the impact of the new emissions trading system for building and transport fuels - Support investments in energy efficiency and renovation of buildings, clean heating and cooling, and integration of renewable energy. - Provide direct income support for vulnerable households - Help finance zero-and low-emission mobility
Sources of financing	- Own resources of the EU and expected revenues from the inclusion of buildings and road transport into the scope of application of the ETS Directive. - Member States should finance at least 50% of the total costs of the Social Climate Plans.

Green transition – how much will it cost?

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- Estimations of additional investment needed:
  - *2.8% GDP or around 520-575 bn (from current 2%) to reach net zero. (Clean Planet for all Communication).*
  - *Additional 350 bn. per year in energy system and 130 bn in environmental goals to reach the new 2030 targets.*
  - *As a share of GDP, this is an increase from 5.3 percent to 7.0 percent.*
  - *4000 EUR per capita in the EU?? (MFF and NextGen 2tn)*
- Sources:
  - *Financial public sources (MFF, Next Gen EU, Social Fund, ETS Revenues, CBAM)*
  - *Financing from private investments considering the limitations of the Sustainable Finance and Taxonomy Regulation*
  - *Programmes such InvestEU, the role of EU Bank (EIB) and implementing partners*

Just Transition in the European Green Deal (EGD)

- Just Transition intends to counter the idea that valuing social aspects of sustainable development (economic, social and environmental) and caring for the environment are mutually exclusive goals.
- **The EU's climate ambition in the context of the EGD (-55% in 2030 and Net Zero in 2050) will have social impacts.** The EU is trying to make this transition fair, leaving no one behind.
- The 2 types of social impacts caused by the green transition:
  1. **Regional**: certain energy-intensive sectors and regions in the EU will have an irreversible decline in economic output and employment level
     - Need to offer state support to affected workers and communities
  2. **Systemic**: increased energy and transport costs may lead to energy poverty and mobility challenges
     - Call for justice in general terms (equity as an integral part in the transition process to a low-carbon society, addressing the roots of inequality)

FUNDS: Financing the Just Transition in the EU

- In order to start addressing these issues and to reconcile the transition with *social justice*, the EU Commission launched a number of new initiatives that aim to help workers and households with tailored financial and practical support, notably:

1. **Just Transition Mechanism (ca EUR 70bn mobilized in 2021-2027):** *specifically targeted at regions which are most exposed to transition challenges*. Financial triptyque which includes:
   a) *Just Transition Fund* (17.5 bn that will mobilise ca EUR 30bn in grants)
   b) *Invest EU dedicated scheme* (mobilise ca EUR 10-15bn of private investments)
   c) the *Public Sector Loan Facility* (leveraging EUR 25-30bn of public financing)

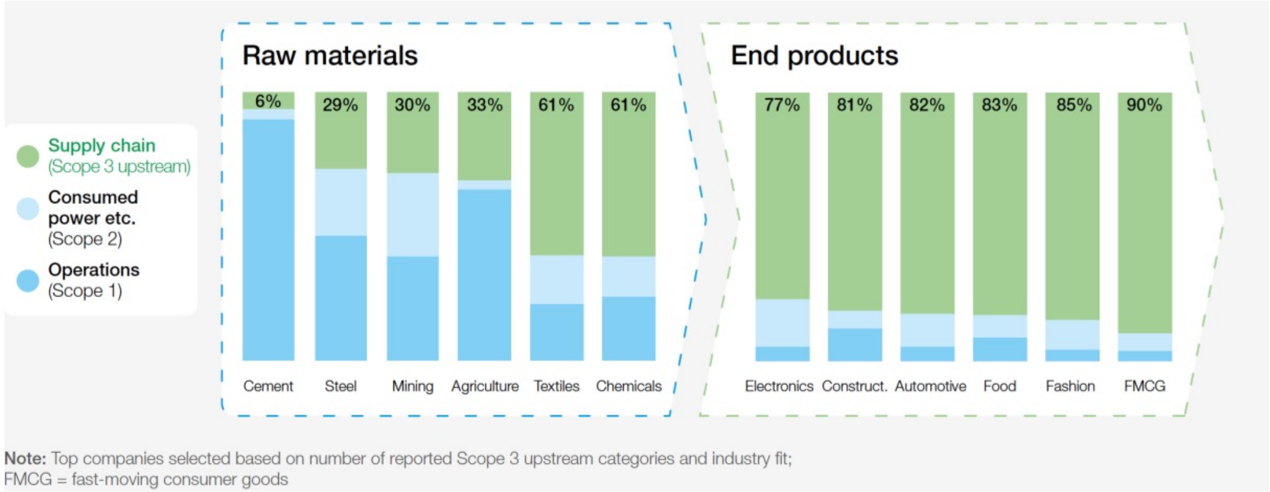
2. **Modernization Fund (ca EUR 14bn in 2021-2030):** a dedicated funding programme to support 10 lower-income EU Member States in their transition to climate neutrality. It aims at *helping to modernise their energy systems and improve energy efficiency*.

3. **Social Climate Fund (ca EUR 72bn in 2025-2032):** established to address the social impacts arising from the extension of emission trading to buildings and transport. It aims at *financing temporary direct income support for vulnerable households and support investments in energy efficiency.*

Supply chain (Scope 3) emissions: an opportunity for mitigation

- Scope 3 emissions are all the indirect GHG emissions that are a consequence of the activities of the company (in the value chain), but occur from sources not owned or controlled by the company
- Scope 3 emissions are also equated with the life cycle emissions of a product or simply referred to as ‘indirect emissions’ of a company’s activities, both upstream and downstream.
- In a net zero world, eventually, all emissions - direct and indirect - will have to be covered
- A company’s supply chain emissions (Scope 3) are on **average 5.5 times larger than its Scope 1 and 2 emissions** (CDP, 2019)

Figure. *Emissions in supply chains often exceed those in operations: emissions split in Scope 1, 2 and 3 upstream for selected industries (CO2e,2019)*



Source: *CDP, BCG (2021)*

To what degree are value chain (Scope 3) emissions covered under the Fit for 55 package?

- Legislation currently governing EU climate ambition is primarily **focused on Scope 1 emissions**, and to **some extent on Scope 2 emissions** (e.g. through requirements for energy efficiency improvements or renewable energy targets)
- There is currently **no systematic approach for supply chain (Scope 3) emissions** in EU climate policy.
- Even though currently Scope 3 emissions do not currently fall under any specific legislative file, there are still linkages and overlaps with **existing EU climate policies** where upstream or downstream **Scope 3 emissions are – to a certain extent – being addressed**
- <u>A question that deserves attention is to what degree are value chain (Scope 3) emissions covered by EU regulations and specifically under the Fit for 55 package?</u>
    - Renewable Energy Directive (RED II)
    - Energy Taxation Directive (ETD)
    - ETS for Road and Buildings
    - Aviation and maritime regulations
    - CO2 Standards for Cars & Vans

    Fit for 55

    - New Circular Economy Action Plan (CEAP) legislative proposals

    Other
- <u>These legislations cover mainly upstream or downstream indirect (Scope 3) emissions?</u>
- <u>Which existing EU funds and programmes enable reductions of indirect (Scope 3) emissions for certain sectors?</u>
    - Energy and Environmental State Aid Guidelines, Innovation Fund, Invest EU 2021, Circular Economy Finance Support Platform, Horizon Europe, LIFE Programme and Social Climate Fund
- <u>By definition, downstream Scope 1 emissions are Scope 3 emissions for a number of actors, then, if incentives are provided how do you make sure that double counting and double claiming of emissions reductions down't occur?</u>

What does the transition really mean?

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- Sectorial implications
  - *IT sector; smart solutions; telecommunication, online videoconferencing*
  - *Renovation Wave and New Bauhaus; stress for the labour market, re-skilling, materials.*
  - *Supply chains; border adjustment; electrification of the industrial process;*
  - *Housing and transport sectors:*
    - *new patters,*
    - *ownership shifts,*
    - *recycling of buildings*
    - *inteligent solutions – heating, driving, charging, energy storage and production*

- Implications for consumers:
  - *Travel less by plane or replace it by less emitting alternatives, such as train travel or video conferencing*
  - *Change your diet towards a more healthy and less carbon intensive one*
  - *Avoid overconsumption, by changing demand for appliances, clothing and other products*
  - *Switch to product-as-a-service business models (e.g. leasing rather than owning products) or other circular business models (e.g. sharing)*
  - *Move to a more energy and material efficient building*
  - *Reduce and recycle more your waste.*

International aspects of the EGD and COP

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- Examples of EU and global agenda interconnections:
  - ETS and article 6 (EU and global carbon markets)
  - EU strategy and non EU strategies on hydrogen (US, Canada)
  - BCAs cooperation; UNFCCC Response Measures
  - Just Trantion in the PA context
- Developments in other jurisdictions – potential for cooperation
- Impact on the neigbouring countries (Turkey, Morocco, Algeria, Ukraine, Russia); impact on distant trading partners (China, US, Canada, S. Africa, Mexico)
- Changing trade patterns (Car industry, Fertilizers, Electricity, Hydrogen)

Institutional architecture (by sectoral measure)

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Emissions trading	ENERGY	Equity	Sinks	Transport	Own Resources
ETS, Peter Liese (EPP)	RED, Markus Pieper (EPP)	ESR, Jessica Polfjard (EPP)	LULUCF Ville Ninisto (Greens)	CO2 cars & vans, Jan Huitema (Renew)	ETS
MSR, Cyrus Engerer (S&D)	EED,	Social Fund, Esther De Lange (EPP)	Forest Strategy	Alternative fuel infrastructure	CBAM
ETS aviation Glavak Sunčana (EPP)	ETD, Johan Van Overtveldt (ECR)	CO2 cars & vans.		Aviation fuels (TRAN)	
CBAM, Mohammed Chahim (S&D)	EPBD			Maritime fuels (TRAN)	
	Gas package				
VP F. Timmermans	**K. Simson P. Gentilioni**	**VP F. Timmermans**	**J. Wojciechowski**	**A. Valean VP F. Timmermans**	**J. Hahn**
CLIMA / ENVI	ENER / ITRE / TAXUD	CLIMA / ENVI	CLIMA / AGRI	MOVE / CLIMA	BUDGET

Draft conclusions

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- Guiding question / reflection:
  - What is the balance between regulation and markets?
  - What is the main instrument of the package?
  - Are targets and rules overcoming the importance of carbon pricing?
- Example of overlaps:
  - Consequences of maintaining recently introduced ETS sectors in the ESR
  - Consistency between sectors?
- Interpretation of the package
  - There are two main ways to present the package, focusing on each sector or type of policy measure (pricing, targets, rules, financing)

Guiding questions on the EGD package

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- What will be the EU political economy landscape in the EU after the package?
- How much of a market economy will be there after the package?
- What are going to be the social impacts of the package?
- Is there an overarching coherence between the different files of the package?
- Targets have been stablished but still uncertainty about how to reach them.

Thank you!