

DG GROW
Call between Commissioner Breton and European energy-intensive industries
Online, 25 March 2021 at 10.00

BRIEFING NOTE *(Commission Internal)*

The energy-intensive industries (EIs) are at the core of the real economy with links to each other and to key European value chains. This is your third call with the key EI CEOs, the previous calls took place on 8 and 20 of April 2020.

This meeting with the energy-intensive industries will allow you to:

- Hear the EIs' expectations regarding the Industrial Strategy update;
- Discuss how the Fit for 55% package can support investment in clean technologies and provide effective carbon leakage protection;
- Check EI's financial needs for the recovery and how to accelerate investment to EIs' green and digital transition.

Running order

- Initial remarks by Commissioner Thierry **Breton**
- Updates by the EIs on the above mentioned topics, chaired by Commissioner Breton. The speakers have coordinated their interventions (main topics mentioned in brackets), it would be important to respect the time limits (5 minutes each) to ensure that all topics covered.
 1. [REDACTED] Solvay Executive Committee & Member of Solvay Board of Directors
(Industrial Strategy, Low carbon products markets, Decarbonised energy)
 2. [REDACTED] FuelsEurope [REDACTED] Petrolneos
(Decarbonisation Roadmaps, Regulatory framework, Competitiveness)
 3. [REDACTED] Fertilizers Europe [REDACTED]
[REDACTED] Borealis L.A.T.
(Investments, Financing of breakthrough technologies)
 4. [REDACTED] EUROFER, [REDACTED]
[REDACTED] ArcelorMittal
(Carbon Border Adjustment Mechanism)
 5. [REDACTED] Cembureau, [REDACTED]
HeidelbergCement, [REDACTED]
(ETS, policy coherence)
 6. [REDACTED] Eurometaux [REDACTED] Boliden
(Raw Materials)
 7. [REDACTED] Saica Group [REDACTED] CEPI [REDACTED]
(Biomass, stability of sustainability standards)
- Discussion (15 minutes)
- Wrap-up & next steps (5 minutes)

Key messages

Introductory remarks

- Transitioning to a climate neutral and circular economy by 2050 will require full mobilisation of industry together with a significant investment push.
- Energy intensive industries are at the core of the transition and supply many key industry sectors (automotive, construction, machinery, agriculture, health, etc.) and disruptions in these sectors have severely affected your companies.
- The Commission is updating Industrial Strategy to better respond to the impact of the pandemic but also due to the more ambitious 2030 climate targets.
- I would like to hear today what are your expectations regarding the Industrial Strategy, what are key issues you would like to be covered.
- Relating to the new climate targets, I would like to hear your reflections on what it takes to provide effective carbon leakage protection for your industries.
- The climate targets require accelerated investment in clean technologies. The funding under the Recovery and Resilience Facility provides an unprecedented opportunity for this:
 - Have your industries had constructive dialogue with the Member States during the drafting of their national plans?
 - How about the possible IPCEI on low-carbon industries, have you found interested Member States?
 - What are your views on carbon contracts for difference or other temporary support schemes addressing OPEX.

After intervention of Ilham Kadri

- You have often communicated that **access to affordable, decarbonised electricity** is one of the key issues for industry, to make the vast transformational investment to green production.

- Access to low carbon and affordable energy combined with **creation of markets for low carbon products** are key conditions for having a business case for transitional investments
- All policy tools available are to be used to create a business case for transformative investments at company level.
- We wish to provide you confidence that supply of clean energy will not become a bottleneck for industry's green transition.
- This is of course a complex issue, but we wish to do the utmost with the industrial policy measures in our hands (public procurement to accelerate investment in renewable energy sources, standardisation to facilitate permitting, promoting production of renewable energy technology in the EU etc.)

After intervention

- We fully share your views on importance to preserve competitiveness during the transition.
- Green and Digital transition offers great opportunities for Europe to strengthen its global competitiveness, the EU needs to shape these new markets and to exploit the first-mover advantage.
- Some Member States have drafted **transition pathways** together with industry stakeholders, to plan effective public measures. We are considering to introduce this idea as part of the industrial strategy, for each of the 14 industrial ecosystem.
- For the EII ecosystem this would not require much of additional effort, as many of your sectors have already conducted such work. Also the EIIs' 2050 transformation Masterplan that was developed a year ago is still valid.
- The novelty would be integration of the digital dimension. I think the opportunities it could provide also for your industries to modernise operations and to create new business opportunities that have not been fully grasped.
- I would like to draw your attention to the upcoming **Skills Roundtable**. It is clear that the skills angle should not be forgotten as most ecosystems see lack of skills as a key bottleneck for dual transition going forward.

- On 10 of May, the (online) roundtable on skills in EII will take place. The roundtable is to prepare the ground for a skills partnership in EII sectors with a Charter to be signed in the future (2021/2022).

After intervention [REDACTED]

- Creating business case for transformative investments at company level and addressing investment challenge of dual transition are the key task going forward.
- The Recovery and Resilience Facility provides a unique opportunity to accelerate the twin transition, funds should be used in most efficient way.
- Innovation is crucial for keeping a competitive edge. With targeted innovation in key technologies such as renewable hydrogen, the EU will be able to scale up in the markets that are expected to grow globally in the coming years.
- The transition will require cooperation and pooling of resources as in the case of hydrogen and batteries. My understanding is that EII's are leaning towards preparation of an IPCEI for low-carbon industry, we will follow with interest this new development.

After intervention [REDACTED]

- I believe [REDACTED] was planning to talk about ETS, let us take CBAM and ETS point together as they are closely interlinked.

After intervention [REDACTED]

- I share your views that industrial transition requires creation of the new predictable policy framework.
- Currently, the Commission plans to table a proposal for a CBAM by June 2021. Already in December 2019, in the European Green Deal, the Commission announced it will make a proposal for a CBAM for selected sectors in 2021.
- Commission services are completing a thorough assessment of impacts of various options for establishing a CBAM, such as a tax at the border of the EU, an internal carbon excise charge, or a system of mirroring the EU ETS, as well as coherence and

complementarity with other measures under the European Green Deal, notably the revision of the EU ETS.

- I know you already exchanged views with DG GROW services on this point. Indeed it would be important for us to have a good understanding of how you see these two instruments working together, especially in the view of a possible phasing out of ETS free allocations and also keeping into considerations indirect costs. I think the timing of CBAM entry into force is also an aspect to carefully consider.

After intervention [REDACTED]

- Importance of Raw materials for dual transition and resilience of our industrial ecosystems is well understood and reflected in our Industrial policy.
- Implementation of the Critical Raw Materials action plan is among the key deliverables in this regard.

After intervention [REDACTED]

- There is clearly the need for coherence among the measures, including continuity and predictability on various issues like treatment of free allowances in the ETS reform and treatment of biomass.
- We will follow biomass issue closely during the revision of the Renewable Energy Directive.

Wrap -up

- We had a good exchange of views and would like to continue this dialogue, including through the **High Level Group on Energy Intensive Industries**, the fora that proved very useful for enabling transition of EIs. High Level group was renewed last year and the selection of members to reflect better ecosystem approach was finalised earlier this month.

Defensives / Q&A

Question: *What are your views regarding chemicals industry's call for a sectoral Green Deal for chemicals (to help fulfil the enabling role of Europe's chemical industry)*

Answer: *The Commission is not in favour of a sectoral green deal since the Chemicals Strategy integrates the main objectives of the Green Deal into a holistic and coherent roadmap on the future of chemicals policy. The Strategy announces a set of actions and incentives to promote the green transition of the sector and of its value chain through various funding instruments. It also seeks the engagement of Member States to ensure the mainstreaming of the transition to safe and sustainable chemicals across EU funding programmes and national recovery plans.*

Question: *What are your views on the adoption of the 2030 climate targets?*

Answer: *The objective of the 2030 Climate Target Plan, adopted on 17 September, to adapt the current 2030 targets is to prepare the EU for the transition towards climate neutrality by 2050. This will be done by proposing a plan to increase the EU's GHG emission reductions target for 2030 to at least 55% (as compared to 1990 levels) in a responsible way and assessing its feasibility as well as economic, social and environmental impacts. To deliver these additional reductions, the Commission will, by June this year, review and propose to revise where necessary, all relevant climate-related policy. These concrete measures that will need to be developed to achieve intended climate objectives will be subject to detailed impacts assessments.*

Question: *Would the Commission authorise contract for difference for low carbon steel?*

Answer: *The issue of contract for difference is one of the topics included in the revision. Stakeholders were asked for feedback on the possibility to allow decarbonisation support through carbon contract for difference and on their advantages and disadvantages. The Commission is still reviewing contributions.*

Carbon contract for difference are contracts between the beneficiary and a counterpart (generally mandated by the State) in which the beneficiary is paid for each ton of CO₂ emission avoided per ton of product that he produces an amount of money corresponding to the difference between his CO₂ emission avoidance costs and the price of ETS allowances.

Contract for difference can strongly affect the functioning of markets. They also provide beneficiaries with important competitive advantages as they can shield beneficiaries from market fluctuations and market risks. Support through carbon contract for difference should therefore be assessed with care and would in any event have to be subject to important safeguards like competitive bidding across sectors to ensure that amount of aid and competition distortions are limited to the minimum as well as mechanisms ensuring that beneficiaries remain exposed to market signals. Also, it must be ensured that CO₂ emission reductions materialise and are not just displaced to another sector. Finally, scheme design must ensure that the aid covers only extra environmental costs but does not lead to capacity increase or cover costs that the company would have to incur anyway. A decarbonisation scheme meeting those conditions has recently been approved by the Commission (Dutch SDE++ decarbonisation scheme).

Question: *How will the CBAM articulate with the EU's present emissions trading scheme (where 'free allowances' currently compensate certain sectors)?*

Answer: *Over time, the CBAM could replace measures that currently address the risk of carbon leakage under the EU ETS. The CBAM is not designed to protect European industry from competition but rather to ensure the environmental integrity and effectiveness of EU climate policies as they apply to its trade-exposed industries.*

The design of the CBAM will complement the EU's carbon pricing policies (in particular the EU ETS) which will remain the cornerstone of the EU's climate policies. The EU internal market will stay open to foreign competition under the applicable rules.

The EU is a staunch defender of rules-based trade order and will comply with its international obligations and the rules of the World Trade Organisation (WTO) in particular.

Question: *What will the CBAM scheme look like?*

Answer: *There is a breadth of considerations that need to be reviewed in the design and implementation of a CBAM. Commission services are completing a thorough assessment of impacts of various options for establishing a CBAM, such as a tax at the border of the EU, an internal carbon excise charge, or a system of mirroring the EU ETS. The assessment of the options will not only look into their economic, social and environmental impacts, but will also consider feasibility and practical implementation, administrative burdens and compliance costs.*

Question: *What will it cover? How will the scope of affected products be decided?*

Answer: *The assessment also includes a careful and impartial selection of sectors and products that should be subject to the CBAM from the outset, reflecting also the possibility of extending the scope to other products later in the implementation. Indeed, clear and stable investment climate is necessary to make the appropriate carbon-abatement investment decisions.*

Question: *When will it be unveiled? When will it take effect?*

Answer: *Currently, the Commission plans to table a proposal for a CBAM by June 2021. Already in December 2019, in the European Green Deal, the Commission announced it will make a proposal for a CBAM for selected sectors in 2021.*

According to the agreement signed by European Council the European Parliament and the Commission on 16 December 2021, CBAM revenue should be in place in 2023.

Question: *How is the Commission preparing the proposals? Are there consultations with partners?*

Answer: *As part of the impact assessment, the Commission has consulted citizens and stakeholders and encouraged them to give their views on the best option to enforce ambitious policies against climate change in an open economy while addressing the risk of carbon leakage. The Commission received contributions coming from 38 different countries. In line with our commitment to transparency the inputs for the consultation were published on the Commission's central consultation page on 6 January 2021.*

A thorough impact assessment is ongoing, examining economic efficiency, environmental, social and financial impacts of the

various options for a CBAM and their feasibility as well as coherence and complementarity with other measures under the European Green Deal, notably the revision of the EU ETS. Any proposal will have to respect the WTO rules and our trade agreements, as well as other international commitments.

Following the presentation of a legislative proposal, the EU will continue to be ready to engage in discussions with its partners in the WTO and other fora. This will enable taking account of legitimate concerns from trading partners. This engagement could also include discussions on how to ensure proper cooperation as regards measures taken by countries to tackle carbon leakage.

Background information

Name of Cabinet Member: Joan Canton

Name of the Director who has cleared the briefing: Joaquim Nunes de Almeida

BASIS request ID: (CAB BRETON/800)

Room, time: online, 25.3.2021 at 10.00

Participants: CEOs from EII sectors and managing directors of the corresponding sectoral EII associations (will attend in listening mode).

Name of main contact person: [REDACTED] GROW I.1

Ells Overview

Energy-intensive industries (EIIs)¹ are the key enablers for the transition of the EU's economy to climate neutrality and for achieving goals of the Green Deal.

European EIIs ecosystem provide direct employment to around 8.3 million people and contribute to around 4.87% of EU value added. EIIs have 15% share in total EU greenhouse gas (GHG) emissions and are main industrial GHG emitters and energy consumers. EIIs are closely interlinked between themselves and other key value chains and sectors. EIIs are the potential driving force in greening the respective value chains (both upstream and downstream) and providing necessary economies of scale for kick starting new markets (hydrogen, etc.).

Substantial changes in the policy framework are needed to ensure the right conditions and business case for the transition of the EIIs to climate neutrality. The most important issue is the lack of a business case for EIIs transition to climate neutrality, as clean products will cost more to produce (higher Opex) and will require significant upfront investments (higher Capex).

The new Industrial Strategy announced an industrial alliance on low-carbon industries to pool resources for demonstrating breakthrough technologies at industrial scale, but EIIs signalled recently preference for IPCEI and started discussions with MS. The High-Level Group on Energy-intensive industries has been the key forum for the dialogue with the EIIs regarding the transition to climate neutrality. In November 2019 the High-Level Group on Energy-intensive industries issued an Industrial Transformation Master Plan on how and under which conditions these industries could transition towards climate-neutrality and circularity by 2050.

What EIIs propose/need for their recovery after the COVID-19 crisis

- **Boost Major Infrastructure projects**

These can create demand for many foundation products from large and small EII companies, steel, metals, concrete, plastics, bitumen, etc. and fuels for logistics & construction

- **Boost Public procurement**

¹ The most energy-intensive industries in the EU are steel, chemicals, cement, refining, ceramics & refractory, ferro-alloys & silicon, fertilizers, glass, lime, non-ferrous metals and pulp & paper.

Build strategic stocks across EU of pandemic response materials and other critical industrial products; Maintain demand for some products to stop plant shut-downs, with knock-on effects for other products

- **Ensure Health of Automakers, Parts and Engineering/Manufacturing Industries**
Restore demand for Steel, Aluminium, plastics, textiles, electronics, etc.
- **Protect and Support SMEs**
They are vital for transport, construction and services for many major projects, but extremely vulnerable now.
- **Work on developing/filling the policy gaps, Industry Master Plan vs Green deal including:**
The creation of lead markets for low-carbon products;
 - mapping future infrastructure needs
 - Inclusive of wider range of industrial technologies
 - planning for access to abundant, affordable and sustainable energy and materials
 - revision of State Aid rules
- **Try to achieve long term regulatory stability and predictability**
To rebuild some loss of confidence from international investors in the EU economy

Fit for 55 – Energy-intensive industries

In the “Masterplan for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral, Circular Economy by 2050”, the High Level Group on Energy Intensive Industries has highlighted the need for rapid progress on the demonstration of first-of-its kind technologies by 2030, considering the short time left until 2050.

EII are therefore calling for an **enabling regulatory framework and specific supporting measures** creating the framework conditions for the transformation of these sectors. The determining factors to allow the green transition of energy-intensive industries can be summarized as follows:

- **Abundant and affordable decarbonised energy, in particular electricity.** Net-zero emissions industrial production requires significant decarbonized electrification and climate-neutral fuel switch, in order to get significant GHG reduction after the year 2030 (e.g. net zero production of cement, steel and chemicals in 2050 will require 2 – 3.5 times more electricity than in 2015). It needs to be available at the scale required, competitively priced and affordable to support EU industry in its pathway towards climate neutrality.
- **Investments in production assets, R&I, demonstration and deployment of new technologies and infrastructure** (e.g. electricity grids, energy system infrastructures, energy storage technologies, CCUS and CO2 transportation pipelines). In this regard, to be noted that investment cycles should also be taken into consideration as innovation will not follow a linear path. Disruptive breakthrough technologies needed for the climate-neutrality objective require sufficient time to be developed, upscaled and commercialised.
- **Digitalisation and transformation of business models.** Current digital technologies can contribute to reduce 15-20% of total current CO2 emissions. Lead companies in Europe are keen to launch a digital coalition to set their carbon neutrality pathway, and it is the right momentum to build upon this initiative.
- **Foster demand for green products and competitiveness on export markets.** European companies still have a clear competitive advantage compared to international

competitors when it comes at the quality of the products and their sustainability features. In order to strengthen this as a market competitive advantage we must create the conditions to massively promote the uptake of sustainable products and to support companies and sectors that are export an important part of their production. This could be done both through economic measures (like a CBAM that also includes export rebates) but also through a wise trade policy, creating the conditions for our companies to enter the future “green” markets in developing countries.

- **Recyclability and possible change in raw materials.** The transition to renewable energy and digitalisation will significantly increase the demand for raw materials, not only for high-tech applications but also for infrastructure. Europe is performing well in terms of recycling for some materials. For other materials, especially those needed in renewable energy technologies or high tech applications secondary production represents only a marginal contribution. A secure and sustainable supply of raw materials, both primary and secondary, is paramount to enable the transition to a climate-neutral economy.

In the light of all these critical factors, possible increase of EII’s carbon leakage exposure should be assessed **alongside** the revision of the 2030 climate targets as it is inherently linked to our climate targets. **Carbon leakage measures should be commensurate with and effective for the high level of pursued climate ambition.**

When it comes more specifically to **ETS**, and in particular to effort sharing, EII underline that it will be particularly important to strike the right balance between ETS sectors on one hand, where emissions have significantly reduced, and non-ETS sectors on the other hand, which in many cases have seen a stagnation or increase of their emissions. This will be needed in order to prioritise the sectors where most efforts to reduce GHG emissions are necessary.

European Hydrogen Strategy (8 July 2020)

The Hydrogen Strategy considers in particular the potential of renewable hydrogen potential to decarbonise difficult sectors like industry and transport, but at the same time helping to manage our electricity system and providing storage. Today, hydrogen is mainly a feedstock in industry and is produced from natural gas. In the future, hydrogen will become a new clean energy carrier, along with electricity.

Hydrogen and renewables are expected to be part of several of the national **Resilience and Recovery Plans**, while several Member States have also presented, or are working on, their own hydrogen strategies and respective budgets to support them.

The European Clean Hydrogen Alliance, launched on 8 July, is open to all stakeholders that wish to contribute to strengthening of the European hydrogen capacities in concrete large-scale projects. It will support the necessary investments along the whole hydrogen value chain to build up a robust project pipeline for clean hydrogen in Europe. The proposed recovery package, Next Generation EU, like the general budget, will have earmarked funds for delivering the climate goals of the European Green Deal. The Commission will closely work with Member States to ensure that there is a strong emphasis on hydrogen related projects in the national measures. The Strategic Investment Facility that the Commission proposed will be able to unlock 150 billion euros to invest in key technologies and value chains, like hydrogen technologies.

The European Clean Hydrogen Alliance

The six thematic roundtables of the European Clean Hydrogen Alliance will elaborate a

project pipeline that delivers on the 2030 objectives of the EU Hydrogen Strategy and strengthens the EU dimension and industrial capacities. Some of these hydrogen projects will require public investments from a number of Member States to be viable.

In preparation of large collaborative multi-country projects, several Member States have launched national calls for expression of interest for a hydrogen Important Project of Common European Interest (IPCEI). On December 2020, 22 Member States and Norway signed a manifesto for the development of a European clean hydrogen value chain, recognising the importance of promoting cross-border collaboration and of working on large-scale joint investment projects in order to support the development and deployment of hydrogen technologies and systems. Industrial applications of hydrogen are explicitly mentioned in the scope.

Replacing fossil energy by hydrogen generated with renewable energy enables significant decarbonisation of the chemical sector.

The value chain for hydrogen needs to be built at the same time as the industries transition to use renewable and low-carbon hydrogen, so that sufficient quantities of renewable and low-carbon hydrogen will be available at an affordable cost. This requires significant expansion of renewables capacities and potentially also imports of renewable and low-carbon hydrogen.

CBAM

The European Green Deal underlined that *“should differences in levels of ambition worldwide persist, as the EU increases its climate ambition, the Commission will propose a CBAM, for selected sectors, to reduce the risk of carbon leakage”*. Indeed, a pillar of the EU climate policy is carbon pricing in the form of the EU Emission trading system (EU ETS). However, as long as international producers do not incur costs comparable to the EU’s, there is a risk of carbon leakage either because production is transferred from the EU to other countries with lower compliance costs for greenhouse gases (GHG) emissions reduction, or because EU products are replaced by more carbon intensive imports. A CBAM that places a comparable price on selected imported products can contribute to mitigating the risks of carbon leakage.

The European Green Deal Communication and the European Council conclusions of 12 December 2019 provide the main context and background for this initiative. It has been confirmed by the proposal for a European Climate Law and with the 2030 Climate Target Plan to reduce GHG emissions by at least 55% compared to levels in 1990. This will be brought together under the ‘Fit for 55 Package’ which will cover, in particular, the review of sectorial legislation in the fields of climate, energy, transport, and taxation, alongside the proposal for a CBAM, as laid down in the Commission Work Programme 2021.

The aim of a CBAM is to ensure that reinforced internal EU decarbonisation efforts, through measures aiming to help meet the temperature goals of the Paris Agreement, do not engender counterproductive effects at the global level. It should be seen as a necessary element of the tool box designed to ensure the environmental integrity and effectiveness of EU’s climate action. The measure will be designed in full compliance with WTO rules. In any case, before developing, proposing and adopting the CBAM, the European Union should consult with its trading partners.

In the interinstitutional agreement on budgetary matters signed on 16 December with the European Parliament and the Council, the Commission committed to propose an own

resource based on CBAM. However, the budgetary potential of the measure is not an objective in designing the measure nor in selecting the sectors. **It is important to pass the message that the main objective is and will be the fight against climate change.**

Skills Roundtable.

- On 10 of May, the (online) roundtable on skills in EII will take place. The roundtable is to prepare the ground for a skills partnership in EII sectors with a Charter to be signed in the future (2021/2022).
- We expect participations of high-level representatives of the EII ecosystem - CEOs of large (multinational) companies and SMEs, social partners, regional cluster and vocational education and training (VET) provider.
- The primary objectives of the roundtable of 10 May will be to:
 - Discuss the challenges within EII ecosystem in terms of upskilling and reskilling to support the shift towards the green and digital transition;
 - Identify the scale and type of support needed for skills development at the European level and, in particular, how the Pact for Skills can support skills needs in EII sectors;
 - Obtain commitments from the participants regarding their contribution to the Pact for Skills in EII sectors.

Biomass and sustainability

- New issue that EII CEOs will raise - concern about EC plans on biomass in RED. EIIs are concerned that European Commission’s modelling is wrong as it only assumes big future need from power sector, ignoring its use as feedstock in EIIs like chemicals or steel
- EIIs are also concerned about the big NGO campaign on toughening up sustainability criteria in the Renewable Energy Directive (38K campaign replies organised by NGOs).

EU Chemicals industry

Chemical manufacturing is the fourth largest industry in the EU and 59% of chemicals produced are directly supplied to other sectors, incl. health, construction, automotive, electronics, textiles.

Global sales of chemicals were EUR 3347 billion in 2018, and is expected to double by 2030. However, the EU’s global sales share is on the decline. With a forecast of moving from 2nd to 3rd position by 2030, being overtaken by the US while China remains number one and on the rise.

EU chemicals industry: facts and figures 2018 (Source: Cefic)

Turnover	EUR 565 billion
Direct jobs	1.2 million
Number of companies	26 600
Capital spending	EUR 21 billion
R&D investment	EUR 10 billion
Global sales share	16.9%

Chemicals will be a key enabler for the European Green Deal as chemicals are the building blocks of low-carbon, zero pollution and energy- and resource-efficient technologies,

materials and products. Increased investment and innovative capacity of the chemicals industry to provide safe and sustainable chemicals will be vital to offer new solutions and support both the green and the digital transitions.

As regards the chemicals strategy for sustainability, Cefic supports its vision and objectives, but has been critical on the number of legislative proposals announced. They consider that the strategy is not specific enough on how innovation and the industrial transition will be supported. It lacks connection in their view to the real-world geopolitical context and it is a missed opportunity for delivering on the European Green Deal as a growth strategy. Cefic's ultimate fear is that an uncoordinated policy combined with weak enforcement risks outsourcing the Green Deal technology solutions to other parts of the world.

Concerning Fit for 55, Cefic and other Energy-Intensive Industries are calling for an enabling regulatory framework and specific supporting measures creating the framework conditions for the transformation of these sectors. In particular, Cefic considers that the burden-sharing between ETS and non-ETS sectors should be rebalanced and the former's share in the EU ambition should be reduced as industry is exposed to global competition. It also calls for a number of specific reforms of the EU ETS and opposes its extension to transport and buildings (i.e., under a common cap). As concerns the future Carbon Border Adjustment Mechanism (CBAM), Cefic insists that it should be complementary to (and hence not replace) the free allocation principle under the current ETS. It should also take into account the specific characteristics of the chemical industry, in particular its strong export orientation (requiring a mechanism that addresses the additional cost for exports) and the presence of very long and complex value chains (which calls for a reasonable product scope of the CBAMs and necessitates measures not entailing high compliance costs or administrative burdens).

Their position is that:

- Europe's chemical industry will be key to build the solutions needed for climate neutrality (e.g. for insulation panels, wind turbines, electric batteries), for which toxic chemicals are needed,
- the chemicals industry needs support in order to decarbonise its own production processes.
- CEFIC has called for a sectoral Green Deal for chemicals to help fulfil the enabling role of Europe's chemical industry. This sectoral deal for chemicals is presented as an integrated approach to the massive changes for chemicals industry leading to a massive investment need.

EU Fertilisers industry

According to Eurostat and the Fertilisers Study², the EU fertiliser market, is an economic sector that has between EUR 20 billion and EUR 25 billion in annual turnover.

Around 95 000 to 100 000 jobs (expressed as Full Time Equivalent) are involved: i.e. approximately 1% of European Gross Value Added for the whole manufacturing sector and 0.2-0.3% of the workforce in manufacturing. In the inorganic fertilisers (which are international trade commodities), large companies represent 75% of the total market value and 75.000 employees for a turn-over of EUR 9.8 billion according to FE.

² http://ec.europa.eu/enterprise/sectors/chemicals/files/fertilizers/final_report__23jan2012_en.pdf.

The inorganic fertiliser's business represents 80% of the EU fertiliser market. The main building block for the production of these fertilisers is ammonia, which is made of nitrogen and hydrogen. Currently, roughly 70% of hydrogen feedstock is produced from natural gas through reforming, thus generating large amounts of CO₂, which is reused to some extent (dry ice, food/beverages...). This can be changed to hydrogen from electrolysis of water. Switching from today's hydrogen production to ultra-low-carbon hydrogen would allow to eliminate GHG emissions either entirely or in large part.

The use of electrolytic hydrogen as a feedstock for ammonia production is currently at demonstration stage.

Ensuring abundant green hydrogen is a big challenge, because it takes 6-8 times more energy to make hydrogen from water than from natural gas or oil. Another hurdle to overcome is the much higher production cost for ammonia if it were to be produced today with this low-carbon technology: at least two times higher than the fossil alternatives under current conditions.

Moreover, ammonia also provides a promising carrier for the transportation of hydrogen - that would be thus bound in bigger molecules which are easier to transport.

CVs of the interlocutors.



