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**NOTE**

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From:	European Commission
To:	Working Party on COMPETITIVENESS and GROWTH (High Level)
Subject:	Background paper on the Commission note on monitoring of the Fit for 55 business case for EU industry

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Delegations will find in Annex a background paper on the Commission note on monitoring of the Fit for 55 business case for EU industry in view of the informal meeting of the members of the Working Party on Competitiveness and Growth (High Level) on 4 November 2021.

The **European Green Deal** (EGD) has set forth a new growth strategy, making the EU's economy sustainable by turning climate and environmental challenges into opportunities across all policy areas, as well as ensuring that the transition is just and inclusive for all. A set of legislative proposals have been adopted to deliver on the EGD, such as the July 2021 **Delivering the Green Deal package**. These aim at aligning the EU's energy, transport and climate regulatory framework with the higher level of ambition to reduce greenhouse gases (GHG) emissions by at least 55% by 2030, relative to 1990 levels as set out in the Climate Law. Achieving the climate target will require a transformational change, where all Member States and all sectors need to contribute.

**Achieving 'competitive sustainability'**, is a core principle of the EU's regulatory efforts to deliver on a cleaner and more competitive Europe. The updated Industrial Strategy 2021 serves to ensure that the EU's industrial ambition takes full account of the new circumstances following the COVID-19 crisis. It helps drive the transformation to a more sustainable, low or zero carbon, digital, resilient, competitive, and fully functioning Single Market. The Commission is also engaged in non-regulatory action, particularly in the form of engaging with stakeholders and strategic thinking. Examples include the co-creation of so-called 'transition pathways', dedicated to various EU industrial ecosystems or the setup of stakeholder alliances, such as the Circular Plastics Alliance, European Clean Hydrogen Alliance, European Batteries Alliance, and the European Raw Materials Alliance. To enable the transition towards the EU climate and energy objectives, simplification and streamlining of permitting procedures is urgently needed for a common market for renewables that facilitates efficient and cost-effective deployment as well as investor certainty, also in view of the massive investments needed to close the current EUR 49 billion per year investment gap<sup>1</sup>.

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<sup>1</sup> annual-single-market-report-2021-5-5-2021.pdf, page 29.

The emerging EU regulatory framework that delivers on the EGD will have significant, multi-dimensional repercussions on economic structural change and industrial transformation across Europe and beyond. Given the comprehensiveness of this regulatory package, it is essential to **understand better the factors** (regulatory, financial, skills, etc.) that can drive the greening of industry, as we move forward with the green economy agenda. Monitoring systematically these factors is important. In order to do so, there is the need to collaboratively discuss and analyse the implications that EU's policies delivering on the EGD are having and may have in the future on industry across Europe.

### **Methodologies and indicators for assessing green transition implications for EU industry**

The EU's policy architecture for delivering on the EGD rests on a number of inter-related impact assessments (IAs) and methodological approaches. For example, in the area of climate and energy, IAs backing the Fit for 55 package build on the analysis undertaken for the Climate Target Plan (CTP)<sup>2</sup>. This ensures that proposals add up to GHG 55% target and that all sectors contribute to the effort cost-effectively. Furthermore, the consistency of the analysis underpinning several Fit for 55 initiatives is ensured by adhering to the same baseline scenario (i.e. the EU Reference scenario 2020), against which various policy options in the areas of energy, transport, and climate action have been assessed. The main methodological approach is that of **quantitative computational modelling and scenario simulations**.

IAs also include a host of **other methodological approaches**, such as literature reviews, surveys, insights from public consultations, and other qualitative methods based on interactions with stakeholders.

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<sup>2</sup> SWD(2020)176

Commission services aim to achieve **coherence and consistency** across legislative proposals by linking various methodological approaches across relevant analytical work. For example, the revision of the Renewable Energy Directive (RED II) and that of the Emissions Trading Scheme (ETS) are **complementary** and **mutually reinforcing** in driving accelerated fuel switch to renewable fuels. The revision of RED II is also a precondition for fulfilment of the increased national targets of the Effort Sharing Regulation (ESR), since Member States will need to deploy much more renewables in the heating, cooling, and transport sectors, in order to meet the increased national ESR targets. The revision of RED II also works in synergy with the CO2 standards for vehicles: vehicles regulations, which will push the deployment of electrified road transport. In a similar vein, the proposal for a separate ETS for buildings and road transport will flank Member States' ESR measures on these sectors. Moreover, the proposals of the Carbon Border Adjustment Mechanism (CBAM) link with those of the ETS through cross-references, such as the proportional phase-in of measures in the former and the corresponding phase-out of free allocation in the latter. Finally, the Energy Taxation Directive (ETD) supports and complements the initiatives in the Fit for 55 package by ensuring that the taxation of motor and heating fuels reflects better the impact they have on the environment and health.

With regard to monitoring green transition implications for industry, the European Commission deploys a **host of sets of indicators** that it regularly updates. They may refer to, for example, green indicators monitoring industrial ecosystems, as per the Industrial Strategy and the Annual Single Market Report, or to energy-related aspects published in the EU's energy statistical pocketbook or its reports on clean energy competitiveness, energy prices and costs, and progress on renewable energy and energy efficiency.

**The Annual Single Market Report 2021** that accompanied the updated Industrial Strategy is particularly relevant for the industrial dimension. It puts forward several key performance indicators (KPIs) that help with monitoring the implementation of industrial policy. Linked to the green transition, it refers to a group of four thematic indicators that proxy the climate neutrality and circular economy dimensions: GHG emission intensity, industry electricity prices, recycling rate of municipal waste and circular material use rate, with the first calculated by industrial ecosystem as well.

Thematic area	Indicator	Measure	Source
Green transition	GHG emission intensity	tCO2e/GDP	UNFCCC & World Bank
Green transition	Electricity prices for nonhousehold consumers	EUR/MWh	Eurostat
Green transition	Recycling rate of Municipal waste	% of total	Eurostat
Green transition	Circular material use rate	% of total material use	Eurostat

*Table 1: List of thematic key performance indicators used for monitoring green transition for industry via the European Commission's Annual Single Market Report*

Another example of regular reporting of relevance for the economy and industry is the Member State reporting under the **European Semester process**. The European Commission is currently reviewing the EU economic governance framework<sup>3</sup> For example, the next Semester cycle will resume the publication of country reports, which will take stock of the implementation of Recovery and Resilience Plans and provide a streamlined overview of the economic and social developments and challenges that Member States are facing. In previous reports, several indicators on green growth performance were analysed including indicators pertaining to the energy intensity, costs and prices for industry, public R&D for energy and environmental protection, municipal waste recycling, and energy and carbon intensity for transport.

<sup>3</sup> European Commission: Communication from the Commission to the European Parliament, the Council, the European Central bank, the European Economic and social Committee, the Committee of the regions - The EU economy after COVID-19: implications for economic governance COM(2021)622 final

## **Facilitating the greening of industry and monitoring progress in this respect**

**A large amount of investment needs to flow into financing green transition efforts.** In the area of climate, energy and transport, the Commission estimates that total energy-related investment needs associated with the Fit for 55 package are in the range of 1050 billion euros average annual over the period 2020-2030. This represents an additional 390 billion euros per year relative to the annual average energy system investments estimated for 2011-2020. More specifically related to industry, the corresponding IAs project that energy-related investments on the industrial demand side required in order to achieve the 55% GHG emission reduction target for 2030 are in the range of 25 billion euros, annually, over the next decade.<sup>4,5</sup> This constitutes more than double the amount of the annual investments estimated in this area for the last decade.

**Challenges, bottlenecks, and barriers preventing the widespread uptake of such investments in industrial ecosystems remain.** For instance, a recent EIB analysis<sup>6</sup> reported that investments in green transformations are hampered by the legacy of the pandemic lockdowns on firms' ability to finance future investment, as well as by the limited availability of adequately skilled staff, and the insufficient transparency on the impacts and risks of climate change on businesses, amongst others. There is insufficient scale-up of low-carbon investment opportunities, and the difficulty in transiting to mature markets in clean energy and sustainable products. Furthermore, businesses face several green investment constraints that go beyond financial needs. These may refer to affordable and stable access to the necessary raw materials or to low-carbon / resource-efficient materials, skilled labour, infrastructure, and clean energy that serve as inputs into various stages of industrial ecosystem value chains.

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<sup>4</sup> As per the Executive Summary Impact Assessment Report accompanying the revision of the Renewable Energy Directive II - see SWD(2021) 622 final

<sup>5</sup> Around 80% of emissions from industry relate to direct and indirect energy consumption (supplies of electricity and steam), with 70% of the energy demand used for heating and cooling purposes, whilst the other 20% are process emissions, primarily related to the cement industry - see SWD(2021) 622 final

<sup>6</sup> EIB Investment Report 2020/2021 "Building a smart and green Europe in the Covid-19 era"

On 29 October, the Commission will hold a **workshop to exchange views with Member State on monitoring Europe’s industrial developments within the context of the European Green Deal**, and on how to use the EU’s industrial power to accelerate the green transition.

This will offer the chance to:

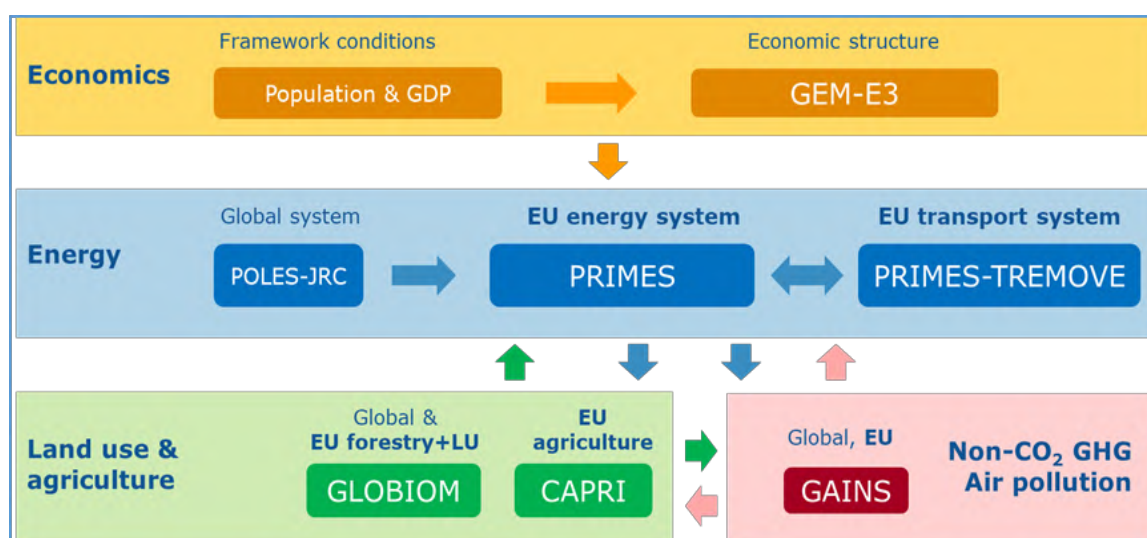
- share best practices on monitoring methodologies, assessment tools, and processes linked to industrial change within the context of the EU green transition policy framework (particularly in the area of climate and energy, but with possible links to other green dimensions)
- provide a forum for Member State experts to share facts, and signal current or potential opportunities, risks, and concerns for their industries, in relation to the green transition, such as capacity and barriers to invest in low-carbon technologies, products, and services

***Question for discussion:***

***What are the main data, indicators that Member States use when monitoring green transition implications for industry and how can the different methodological approaches be shared across Member States to complement those of the Commission?***

**Annex – modelling suite for the Climate Target Plan (CTP)**

In the case of CTP and Fit for 55 legislative proposals, the modelling suite consisted of a series of large-scale energy-environment-economy models, such as energy system models (e.g. PRIMES, POLES-JRC), macroeconomic models (GEM-FIT, E3ME, JRC-GEM-E3, QUEST), micro-simulation fiscal models (EUROMOD), land-use/ agricultural sectoral economic modelling (e.g. GLOBIOM, CAPRI), and global pollution models (e.g. GAINS) - see Figure 1.



*Figure 1: The suite of quantitative computational models used in the European Commission's Impact Assessments of the Climate Target Plan and several Fit for 55 policy initiatives in the area of energy, transport, and climates*