

## The EU Green Deal and the impact on the lubricants industry

*The European Union (EU) Green Deal is an ambitious policy framework designed to transform Europe into the world's first decarbonized continent by 2050. As part of this transformative agenda, the EU Green Deal will have a profound impact on various industries, including the lubricants sector. This means that the lubricants sector faces a range of challenges and opportunities. This paper explores the key topics that are part of the EU Green Deal and their implications for the lubricants industry. Main topics are the Fit-for-55 package, Emissions Trading System, Carbon Border Adjustment Mechanism, ReFuelEU Aviation and FuelEU Maritime, Energy taxation and energy efficiency measures, emission standards for vehicles and the overall transition to sustainable lubricants. This white paper aims to provide insights within the context of the EU Green Deal.*

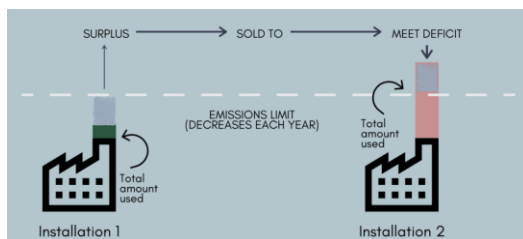
### Emissions reduction and decarbonization

The EU Green Deal sets stringent targets for reducing greenhouse gas (GHG) emissions. The first step towards reducing emissions and decarbonization is the Fit-for-55 package. The main target is to reduce the GHG emissions by at least 55% by 2030. In relation to the lubricants industry, this package is expected to have a significant impact. The main measures include stricter CO<sub>2</sub> standards for cars and vans, expansion of the EU Emissions Trading System (EU ETS) and introduction of the Carbon Border Adjustment Mechanism (CBAM).

These regulations will drive the demand for more sustainable lubricants and drive innovation with regard to fuel efficiency<sup>1</sup>. Lubricant manufacturers and their base oil and additive suppliers will play a major role in leading product innovation, as well as exploring cleaner production processes and reducing energy consumption in order to meet the requirements of the Fit-for-55 package.

### EU Emissions Trading System

One of the main policy tools in the EU Green Deal is the EU Emissions Trading System. The objective is to limit and reduce CO<sub>2</sub> emissions from power plants and industrial facilities and enable emission allowances to be traded between companies. The EU ETS is based on a cap-and-trade principle. A cap is set on the total amount of specific greenhouse gases that can be emitted by installations and will be reduced over time so that total emissions decrease. Within the cap, companies receive or buy emission allowances which they can trade with one another. By setting the carbon price the investment in clean and low-carbon technologies is promoted.



*A simplified explanation of how the EU's ETS works [source: [EU Emissions Trading Scheme Explained \(investigate-europe.eu\)](https://investigate-europe.eu/)]*

### Carbon Border Adjustment Mechanism

The CBAM aims to reduce the risk of carbon leakage by introducing carbon costs on imports from countries with less stringent climate policies. This mechanism would require importers to purchase carbon certificates to offset the embedded carbon emissions in their products, aligning them with the EU's carbon pricing system. The CBAM will equalize the price of carbon between domestic products and imports and ensure that the EU's climate objectives are not undermined by production relocating to countries with less ambitious policies. The introduction of CBAM could have significant implications for the lubricants industry, as it may impact the cost

<sup>1</sup> Understanding the product carbon handprint of lubricants, UEIL, 2022



and competitiveness of imported lubricant products based on their carbon footprint, thus encouraging the industry to further invest in low-carbon alternatives and sustainable practices.

### **Circular economy and waste**

The EU Green Deal emphasizes the transition to a circular economy and improved resource efficiency. This transition will require the adoption of sustainable practices throughout the product life cycle. Lubricant manufacturers will need to enhance recycling and recovery processes to minimize waste generation. Furthermore, the industry will need to further explore the use of recycled materials and development of bio-based lubricants to promote resource efficiency and reduce reliance on fossil fuels.

### **Transition to sustainable lubricants**

The EU Green Deal also aims to accelerate a shift towards sustainable and bio-based lubricants.

Defining 'sustainable' is a priority of the Commission and it will be addressed through Ecodesign for Sustainable Products Regulation ( [Ecodesign for sustainable products \(europa.eu\)](https://ec.europa.eu/euro-observatory/en/infographic/ecodesign-for-sustainable-products) ), Chemicals Strategy for Sustainability towards a toxic free environment ( [Chemicals strategy \(europa.eu\)](https://ec.europa.eu/chemicals/en/strategy) ) and the Safe and Sustainable by Design framework ( [Safe and sustainable by design \(europa.eu\)](https://ec.europa.eu/chemicals/en/strategy) ), which includes the need to conduct a full life-cycle assessment.

The European Green Deal has the potential to impact on the lubricants industry as it encourages the use of bio-based lubricants derived from renewable feedstocks. Manufacturers will face the challenge of ensuring the availability and affordability of sustainable feedstocks, such as plant-based oils, for bio-based lubricant production. Innovation will be key to advance formulations development and enhance lubricant performance.

The Renewable Energy Directive proposes more ambitious renewable energy targets for member states. In July 2021 the renewable energy target for 2030 was set at 40%, however, in view of the need to further step up our energy independence from fossil fuels, the Commission proposed to further increase this target. Currently there is a provisional agreement for a binding target for 2030 of at least 42.5% but aiming for 45%.

### **ReFuelEU Aviation and FuelEU Maritime**

ReFuelEU Aviation and FuelEU Maritime are initiatives aimed at decarbonizing the aviation and maritime sectors. ReFuelEU Aviation promotes the use of sustainable aviation fuels (SAF), creating a demand for bio-based jet fuels and driving the need for compatible lubricants. The proposed rules harmonize obligations on fuel suppliers and airlines to scale up the usage of SAF. This means that every flight leaving the EU airports, will carry a minimum amount of SAF. The obligation starts from 2025 at 2% SAF, gradually increasing to 63% by 2050.

The FuelEU Maritime initiative proposes a common EU regulatory framework to increase the share of renewable and low-carbon fuels in the fuel mix of international maritime transport. To support the uptake of sustainable maritime fuels, the proposal introduces limits on carbon intensity of the energy used on board ships and mandates the use of onshore power supply in EU ports. Reductions of annual average GHG intensity of energy used on board ships would start from 2025 with a 2% cut compared to a 2020 baseline, increasing to 75% in 2050. FuelEU Maritime incentivizes sustainable marine fuels, necessitating the development of specialized lubricants that ensure efficiency in maritime applications.

### **EU Alternative Fuels Infrastructure Regulation (AFIR)**

The AFIR is a regulatory framework implemented by the European Union to promote the development of a network of alternative fuels infrastructure. AFIR aims to facilitate the deployment of alternative fuels, including electricity, hydrogen, biofuels, and natural gas. The regulation requires Member States to set targets for the deployment of alternative fuels infrastructure. AFIR plays a crucial role in the adoption of alternative fuels as it influences the accessibility of refueling stations and charging points for electric and hydrogen vehicles.



## Energy Taxation

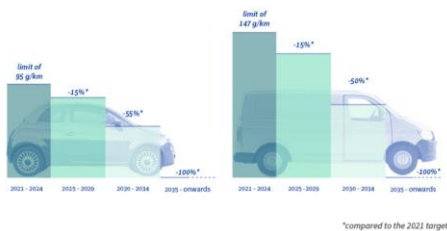
Currently energy is responsible for 77% of the greenhouse gas emissions in the EU. In order to reduce the emissions related to the production of energy, the energy taxation plan was introduced as part of the Fit-for-55 package and the EU Green Deal. The energy taxation plan aligns energy taxation policies with climate objectives and promotes the use of sustainable energy sources. The plan proposes to harmonize the taxation rates applied to different products, which includes lubricants. This approach is based on imposing a product taxation based on the carbon content. This may lead to an increase in taxation rates for fossil-based lubricants, incentivizing the industry to shift towards more sustainable and bio-based lubricants and encourage end-users to adopt more sustainable solutions.

## Energy Efficiency

The Energy Efficiency Directive plays a vital role in the EU Green Deal by promoting energy efficiency measures across various sectors. The Commission has proposed to revise the current energy efficiency directive by increasing the current EU-level target for energy efficiency to 39% for primary energy consumption, which is the initial energy input before any conversion or transformation takes place. Additionally, member states will have to reduce their total consumption every year, reaching cuts of 1.5% annually. With regards to the lubricants industry, the Energy Efficiency Directive encourages lubricant manufacturers and end-users to adopt energy-efficient products and technologies. The measures emphasize reducing energy consumption and improving energy performance which aligns with the function of lubricants to minimize friction and maximize energy efficiency<sup>2</sup>. Overall, the energy efficiency targets will further stimulate the lubricants industry and end-users to prioritize energy efficiency and more sustainable lubricant solutions.

## Emission standards for cars and vans

The EU Green Deal includes stringent CO<sub>2</sub> emission standards for cars and vans, aiming to accelerate the transition towards cleaner and more sustainable transportation. These standards set legally binding targets for the CO<sub>2</sub> emissions of new registered vehicles. The EU has set ambitious targets of achieving a fleet-wide average emission of 95 grams of CO<sub>2</sub> per kilometer for cars and 147 grams of CO<sub>2</sub> per kilometer for vans. These targets will gradually tighten, with the long-term objective of reaching zero-emission mobility (100% reduction target) by 2035. The CO<sub>2</sub> emission standards for cars and vans within the EU Green Deal aim to promote the adoption of electric vehicles (EVs).



Projected CO<sub>2</sub> emission reductions for new cars and vans [Source: Council of the European Union].

## Product Labeling and Reporting Requirements

Another element in the EU Green Deal is the emphasis on transparency and consumer information. As a result, the lubricants industry will face new labeling and reporting requirements to provide clear and standardized information on the environmental impact of lubricant products. Manufacturers will need to ensure compliance with these regulations and invest in accurate product labeling and reporting systems. Transparent communication about the sustainability credentials of lubricant products will become increasingly important in maintaining consumer trust and meeting market demands. The European Commission intends to introduce a Green Claims directive to stop companies from making misleading claims about environmental merits of their products and services ( [Green claims \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/inline-0/attachment-data/file/Green%20Claims%20Directive.pdf) ).

<sup>2</sup> Understanding the product carbon handprint of lubricants, UEIL, 2022



## **Summary**

The EU Green Deal presents many challenges to the lubricants industry in Europe. Collaboration and partnerships will play a vital role in this transition and the UEIL will play an active role in this. Apart from the challenges, there will also be opportunities in which innovation will be key. Investments in renewable energy will drive lubricant demand, accelerating energy efficiency efforts will boost demand for high-quality lubricants and decarbonizing road transport necessitates new lubricants. By embracing the principles of the EU Green Deal the lubricants industry can contribute to Europe's climate goals while securing a sustainable future.

UEIL, May 2023 [ [UEIL.org/contact/](mailto:UEIL.org/contact/)]