Meeting between Mr Henrik Hololei and Mr [redacted], Director General of FuelsEurope/Concawe. Director General office. 18/02/2020 11:30

Scene setter

- Mr [redacted], Director-General of FuelsEurope/Concawe, would like to discuss the refineries' contribution to the Energy and Climate transition.
- He will be accompanied by Mr [redacted], Policy Director of FuelsEurope, and Mr [redacted], Science Director of Concawe.
- As a part of his visit Mr [redacted] would like to present FuelsEurope/Concawe's activities, including the 2050 Vision for Refining (low carbon fuels) and their viewpoints on technologies and policies. A short summary of the 2050 Vision for Refining and a short profile of FuelsEurope/Concawe is included in the background of this briefing.
- Mr [redacted] will enquire about the state of play of implementing the Green Deal and next steps.

Objective(s)

- Understand FuelsEurope/Concawe activities and priorities
- Explain MOVE's approach to transport sustainability

Key Messages

- Following the adoption of the Green Deal on the 11 December 2019, DG MOVE is now working on a comprehensive transport strategy for sustainable and smart transport that leaves no one behind.
- This is a key priority for this Commission, and particularly for Commissioner Valean.
- The Green Deal notes the need for transport to reduce its emissions by 90 percent by 2050. This is a huge challenge.
- Decarbonisation of transport fuels is a key requirement, in addition to strongly improving the efficiency of the overall transport system and bringing low- and zero-emission vehicles into the market.
- An accelerated use of sustainable alternative fuels across modes of transport is a key requirement. And we need a clear direction for achieving sustainable fuel use in each mode.
- I am aware of the importance of the refining sector for the EU economy. The EU refining employs directly and indirectly some 600,000 people. I also note that this industry also contributes €240 billion to the EU member states' income through excise duties and taxes, corresponding to an average 7 percent of national revenue in the EU-28.

- The analysis underpinning our long-term climate strategy highlights that there is no silver-bullet. We need all relevant alternative fuels, to different degrees in the different modes of transport.
- Sustainable alternative fuels should be available with priority in those modes and sectors that need them most; e.g. think about the best use of advanced biofuels that are currently available to limited amount, and are the only real alternative for aviation at the moment.
- I am very interested to know the FuelsEurope activities on the current state of play and future prospects of the different fuel technologies we see in the transport sector today.
- Fuels need to be in place, but they need to go together with vehicles and infrastructure. And these need to be affordable. We need all parts of the equation.
- Different legislative initiatives under the Green Deal contribute to this undertaking. These include the review of the Renewable Energy Directive, of the CO2 emission performance standards for cars and vans, but also the revision of the Alternative Fuels Infrastructure Directive that should go hand in hand with the revision of our TEN-T guidelines.
- We are also starting to analyse legislative options for boosting the production and distribution of alternative fuels in transport, such as in modes of aviation and maritime.
- We are early on in the process. I would invite your views on priorities and needs for policy support action in the wider field of promoting the uptake of sustainable alternative fuels.
- I am particularly interested in how you see the future of fuels in aviation and maritime transport and what you will do to increase the availability of sustainable alternative fuels (e.g. advanced biofuels, e-fuels, bio/e-gas) to the market, and how we can make best use of the alternatives per mode.

Defensive Points

How will you make sure that lifecycle benefits of advanced biofuels and e-fuels are taken into account for road transport vehicles?

- As part of the 2023 planned revision of the CO2 emission performance standards for cars, vans and trucks, the Commission is required to consider how the lifecycle benefits of alternative fuels could be taken into account. This assessment is now being carried out.

- At the same time, we need to carefully look at priorities across different modes. Advanced biofuels and e-fuels are the only realistic option for decarbonising air transport. This sector should not face shortages in supply because of demands from sectors that have other alternatives to decarbonise. Production and use of SAF is negligible (0.05% of total jet fuel use). Advanced biofuels and e-fuels have potential for important emission savings so need for framework to increase their uptake: via sectoral legislation while ensuring full compliance with existing rules - such as sustainability criteria in RED2 - and tax incentives.

- Concerning road transport, the latest information from studies performed for the Commission suggest that zero-emission vehicles at tailpipe (battery electric, hydrogen fuel cell) also bring substantial benefits from a lifecycle perspective: their GHG emission performances are typically 2-3 times better than those of diesel/petrol vehicles, and they are expected to bring further improvements as the share of renewable electricity increases.

Background

Vehicle regulations and Life Cycle Analysis (LCA)

- In accordance with the recently adopted CO2 emission performance standards(Reg. 2019/631 for cars and vans, and Reg. 2019/1242 for heavy duty vehicles), average emissions of the EU fleet in 2030 will have to be 37,5% lower than in 2021 for cars and 31% lower than in 2021 for vans. An intermediate target of 15% emission reduction is set for 2025, both for cars and for vans, in order to ensure swift action. The CO2 emission targets for lorries are a 15% reduction by 2025 compared to the 2019 baseline emissions and 30% reduction by 2030.

- All these objectives are defined in terms of tailpipe emissions. As part of the revision foreseen for 2023, the Commission is required to assess the possibility of developing a specific methodology to include the potential contribution to CO2 emissions reductions of the use of synthetic and advanced alternative liquid and gaseous renewable fuels, including e- fuels, produced with renewable energy. This would require the inclusion of some form of well-to-wheel or lifecycle consideration.

- A study has been performed by Ricardo for DG CLIMA, with the objective of assessing the environmental impact of road vehicles in a holistic manner, using a lifecycle assessment approach covering the manufacturing, use and end-of-life phases of the vehicles, and taking into account the fuels used. It has contributed to the development of an LCA approach to road vehicles will help support evidence-based policymaking that enhances synergies and ensures overall reductions in environmental impacts across the vehicle lifecycle.
- The initial results of this study suggest that zero-emission vehicles at tailpipe (battery electric, hydrogen fuel cell) also bring substantial benefits from a

lifecycle perspective: their GHG emission performances are typically 2-3 times better than those of diesel/petrol vehicles, and they are expected to bring further improvements as the share of renewable electricity increases. Natural gas vehicles bring substantially lower benefits –with lifecycle GHG emission reductions in the order of -15%/-30% compared to diesel.

- The LCA includes embedded emissions from vehicle production, maintenance and servicing, and end-of-life activities, and WTW emissions from production and use of the fuel / energy.

FuelsEurope& Concawe

FuelsEurope was founded in 1989 (previously EUROPIA) to represent the interests of companies conducting refinery operations in the EU to the EU Institutions. FuelsEurope is one of the two divisions of the European Petroleum Refiners Association. The other division is Concawe, which does research on environmental, health and safety issues relevant to the oil industry. Concawe is one of the three JEC research partners (Joint Research Centre of the European Commission, EUCAR and Concawe) that have elaborated the Well-to-Wheels Report assessing the use of energy and greenhouse gas emissions for a wide range of potential future fuel and powertrain options.

Fuels Europe position

- Answering the growing global demand for energy while at the same time limiting the emission of greenhouse gases is one of the most critical challenges of our time. The EU refining industry can contribute to effectively address this dilemma.

- FuelsEurope supports the efforts of the international community to address the risks of climate change and believes that effective measures must be undertaken by all significant world economies under an effective and clear international agreement.

- Today, while alternative technologies are increasingly used in transport, refined petroleum products are – and will remain for many years the prominent energy source. This is due to a combination of continuous technology advancements in the internal combustion engine and of affordable and high quality liquid fuels. The latter, due to their superior energy density with respect to any available alternative fuels, provide economic and technological advantages in comparison to competing fuels / energy sources.

- The refining industry is continuously seeking to improve its energy efficiency based on the valuable technological know-how accumulated by the sector and, in close cooperation with the automotive, petrochemical and other key industries, contribute to an economically sustainable low carbon economy.

Refinery vision 2050

- The EU refining industry is committed to contribute to this objective by continuing to reduce its CO2 emissions and providing the economy and citizens with low-carbon fuels and other products that society needs.

- The industry's Vision 2050 is a comprehensive proposal for reducing GHG emissions in transport through the use of liquid fuels and products progressively lower in carbon intensity such as renewable power, hydrogen, biomass, wastes and captured CO2. According to this vision there is, today, no alternative to liquid fuels for a significant portion of aviation, marine and heavy-duty road transport

- The EU refining industry has an important and enduring role to play in the energy choices of the future, by providing low-carbon liquid fuels to complement low-carbon electrons, gas and hydrogen as energy carriers. Technology and collaboration across industries will facilitate the production of these low-carbon liquid fuels.

- It is also an industrial opportunity for Europe to gain leadership in these low-carbon technologies, all of which will be key for the strategy of the wider industrial base. The refinery of the future can be a pioneering low-carbon manufacturing hub integrated with a cluster of industries, able to expand this industrial collaboration in future low-carbon technologies.

- EU refining in the EU directly employs approximately 100,000 engineers, scientists and trade workers, with an additional 500,000 people indirectly employed in areas such as marketing and supply. The industry is a major source of revenue: every year, the EU refining industry contributes €240 billion to EU member state income through excise duties and taxes, corresponding to an average 7 percent of national revenue in the EU-28

- The Vision 2050 also includes key findings from an important and extensive study elaborated by Ricardo comparing a scenario that achieves GHG reductions in light road vehicle primarily from full electrification by 2050 , with an alternative scenario that uses a mix of technologies, with some electrification, and also low-carbon fuels. This alternative scenario enables achievement of the same level of CO2 emissions as a High EV scenario, secondly shows that the technologies are complementary to electrification, and thirdly represents a much lower cost for public finance with regards to EV charging and network infrastructure, €390 Billion vs €830 Billion for the high EV scenario.

CV Mr [redacted]

[redacted] was appointed Director-General of FuelsEurope and Concawe in April 2015. He started his career in the motor industry working on future powertrains, and after 3 years he moved to BP Downstream where he has 27 years of experience. His previous role was that of Director of Renewables Strategy Downstream, leading BP's commercial compliance strategy for renewables regulation. He has also had business leadership roles in aviation fuels and lubricants, transport energy policy and fuels technology, in the UK and USA, and has represented the UK fuels industry at the UK Automotive Council Technology Group. He holds a BA in Engineering from the Cambridge University.

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