Summary Report

Clean Transition Dialogue on Transport and Mobility

8 April 2024, Berlaymont Building, Brussels

Summary:

There was a consensus that it is necessary to reconcile decarbonisation with competitiveness and that a key requirement for competitiveness is to work towards a global level playing field.

EU industry should compete on innovation not cost. Innovation was also key to EU industry maintaining and increasing its competitive edge. EU industry could not compete successfully on cost with competitors such as China, but through technological innovation.

Sustainable alternative fuels for transport are fundamental for decarbonisation - especially for aviation and maritime. The supply of sustainable fuels should be through a combination of diversification of sources (imports) and domestic production within the EU.

A major obstacle to the uptake of sustainable fuels was the significant price differential between sustainable and conventional fuels; sustainable fuels are generally five times more expensive. Several participants suggested that earmarking of ETS revenues at EU and national levels should be used to bridge the price gap.

Insufficient supply of sustainable fuels was another important bottleneck and greater flexibility and incentives such as appropriate taxation were needed. Some complained that there was a disconnect between the legal obligation to supply sustainable fuels and financial incentives to support production and uptake. It was proposed to introduce a flexibility mechanism for maritime fuels similar to the one included for sustainable aviation fuels (SAF) in the ReFuelEU Aviation Regulation. In aviation, greater flexibility for airlines in the uptake of SAF at EU airports should be provided through the introduction of a book and claim system. A more linear ramp-up of supply (current mandates require major ramp-ups every 5 years) than what is proposed in the ReFuelEU Aviation Regulation would also help. A better alignment of the Renewable Energy Directive (RED) with these Regulations was also needed to boost feedstock supply.

Many also warned that availability of sufficient amounts of renewable energy production and supply risked being a major bottleneck for transport decarbonisation. There was a need for closer collaboration and partnership between the transport and energy sectors.

The discussion on infrastructure revealed that many agreed that the objective should be an integrated and interconnected multimodal network across Europe. For example, major EU airports should be connected to the high-speed rail network. There was a desperate need to upgrade rail infrastructure, reduce congestion and increase capacity – especially for freight. The EU should especially target the cross-border interconnections to increase convergence and connectivity.

There was also a need for integrated long-term planning between energy, transport and digital networks. For example, airports could become future energy hubs, including for energy storage and distribution. The EU should also identify strategic sites for future hydrogen hubs. Access to data and
digital information across different networks, including for recharging infrastructure and electric vehicles was essential, as well as to allow integrated multimodal ticketing and timetabling for passengers, but cybersecurity should also be addressed.

The charging infrastructure for cars and especially for heavy-duty vehicles needed to be built up much faster as it was an indispensable condition for making electrification a success. Investment priorities should also include the upgrade of electricity grids, which were a major bottleneck for the rollout of recharging infrastructure as was the need to speed up permitting.

Many agreed that huge investments in transport infrastructure are needed to upgrade the networks and increase capacity and efficiency. Some suggested that it was possible to mobilise private funding for investment, including in rail. The regulatory framework also played a key role in providing predictability, which could support a 20-year integrated investment plan. Simplification of funding mechanisms was necessary and the Alternative Fuels Infrastructure Facility (AFIF), supported by the European Investment Bank (EIB), was identified as a good example that could be replicated.

The transport industry is facing clear difficulties in the recruitment of a skilled workforce and labour shortages. The importance of upskilling in the EU transport industry to tackle the challenges of innovation, sustainability, lifecycle analysis and developing knowledge on research was emphasised. Investing in education and attractiveness of the sector will remain a key challenge for the future. It was suggested that improved salaries and working conditions would also be an incentive to fill the workforce gap, as well as incentives to attract young people and women to the transport sector such as through exchange programmes and summer jobs for students.

**Detailed Report:**

Transport is vital for the EU economy and society. It plays a crucial role in the EU, contributing around 5% to EU GDP and employing more than 10 million people across Europe. It ensures the smooth functioning of the whole economy, serving European businesses, citizens and global supply chains. It is a driver of innovation.

At the same time, we need to mitigate climate change and transport is a major polluter, representing over a quarter (27%) of Europe’s greenhouse gas emissions. We need to accelerate cleaner transport. We must protect the climate but on the other hand we must be competitive. There is a strong drive for innovation in other regions of the world we are competing with. We must be the front runners through technological innovation and dominate the market in the future.

We have taken the first steps by establishing the legal framework under this mandate to be climate neutral by 2050 – it is enshrined in law. This has created predictability. It means that we must cut transport emissions by 90%. Our measures include market-driven measures like the ETS which signal that you either pay or you innovate. The ETS now includes aviation and shipping. The production of sustainable fuels is also very important but we must ensure access to clean energy for their production and access to feedstocks.

Now we must turn to the implementation of the legal framework – action on the ground. We can assist you with guidelines to make your life easier and maintain and increase your competitiveness.
Focus on three areas: infrastructure; efuels; supply chains.

Infrastructure: it is the backbone of the transport system and should be climate proof and more resilient. We need to invest big numbers and invest smart. Under the Sustainable and Smart Mobility Strategy we have said that until 2030 EUR 100 billion per year need to be invested in transport infrastructure alone. TEN-Transport is our main contribution, covering all transport modes. For example, the objective of connecting all major airports through multimodal links, and interconnection hubs for freight transport. For recharging and refuelling infrastructure we have AFIR – binding targets for Member States, creating regulatory stability and predictability for investors. It gives the market signal for the direction of travel. The Alternative Fuels Infrastructure Facility provides up to EUR 1.3 billion for this infrastructure and this can leverage five times that amount through private investors. We are also supporting the supply of renewable electricity to ports and airports.

eFuels: The EU inaugurated the first methanol-powered container ship in Copenhagen. It took 10 years and the European Green Deal turned this into a good business case – they were front runners. Vast amounts of renewable energy and hydrogen will be needed to produce eFuels – this must be ramped up and integrated with transport.

Supply chains: this is a challenge but we also have success stories for example in clean steel. We now have 50 projects out of 80 worldwide. We have the first large-scale factory investment decision in Sweden, which supplies carmakers, and it is affordable. We are also boosting European battery production through our 'batteries initiative'. Northvolt is now establishing itself in the market.

We learnt the bitter lesson of our over-dependency on Russian gas, but now we have completely diversified. Through renewable energy supplies we are overcoming dependency and exposure to volatile prices.

Critical raw materials are also a challenge. China owns the vast majority of mines worldwide. But we are also very active signing MoUs for critical raw materials with third country producers. We have a different approach; we don’t just want the raw product, we help to build processing and create added value locally. We are diversifying our supply.

This is the 9th edition of these Clean Transition Dialogues. We need to combine decarbonisation with competitiveness.

(KLM – air transport)

Zero emission mobility is both a challenge and an opportunity in the transport sector. We need to keep our competitive edge but face fierce competition outside the EU. We need to do whatever it takes to remain competitive while becoming more and more climate neutral. People want to travel, but flying has an impact. Climate neutrality is at the heart of our sector goal for 2050. EU legislation under the European Green Deal and Fit for 55 has set the targets, such as the 6% mandate for Sustainable Aviation Fuels (SAF) by 2030. But we must also achieve the Single European Sky, which can achieve 6% to 10% emissions reductions.
KLM is committed to achieving these goals. We are investing heavily (EUR 6-7 billion) in new fleets to fly cleaner, quieter and more fuel-efficient aircraft. KLM and Air France are the largest users of SAF (17% of the market today). We aim to electrify all our ground equipment by 2030 (already 70% today).

As the former CEO of the Dutch Railways, I am very pro multi-modal. We should aim to replace flights below 700km with high-speed rail connections. We also need timetable integration.

Main recommendations:

The EU should continue to improve on existing legislation and frameworks that stimulate zero mobility, in particular:

- Guarantee a level playing field: instruments must not harm competitiveness versus non-EU competitors. Look forward to report on CBAM (on inclusion of air services). Strengthen global initiatives (ICAO);
- In Europe, we need our own biofuel and synthetic fuels production. EU must help invest to make SAF more affordable;
- Reach ambitious targets through right incentives: ETS revenues must be allocated to SAF and R&D in zero emission aircraft.

We need to work together on a joint vision to do whatever it takes so that we decarbonise, while remaining competitive.

This dialogue covers all modes of transport and infrastructure. The dialogues will contribute to a Communication to EU leaders at the European Council meeting on 17th April and the discussion on the EU’s strategic agenda.

Since transport is responsible for more than a quarter of the EU’s emissions, we must reverse this trend. Unlike other sectors, in transport emissions are still increasing, especially as economic activity is recovering and increasing. Key topics are sustainable fuels, batteries, renewable energy, recharging and refuelling, financing and what incentive schemes. We will also discuss the social dimension, new skills, and labour shortages.

We are here to discuss the future of the transport sector. It is a very complex environment. There are specificities, not all solutions are common for all. Some modes are doing better than others. All modes have to be competitive to have a solid transport sector in Europe. Without it, the economy cannot function. Through the Sustainable and Smart Mobility Strategy we took a comprehensive approach towards decarbonisation, combining innovation and digitalisation. We need clean vehicles, better sustainable fuels, we need to be more efficient in our operations – explore new business cases, with interconnections and interdependency to benefit everyone. We have put in place a wide range of measures. Some are planned, some are in place, some are failing. For example, the Single European Sky is a failure. We need to take stock – a lot of work needs to be done there, especially if we talk about 6%-10% emissions reductions.
There are key challenges, such as access to sufficient renewable energy and feedstocks to scale the production of sustainable fuels – this is a major concern. Another challenge relates to the long lead time for planning, tendering and permitting, including getting access to the electricity grid. Barriers to access funding and financing must also be addressed. Moreover, aviation and maritime sectors are global industries and hence need to be competitive at global level.

(EIB)

Our work is about partnership and cooperation. We are open to talking about your new needs. We don’t just lend long-term, we also blend funding with the Commission. The Bank is active in intervening with financial products to mitigate risks. For example, we have created a EUR 1.3 billion Alternative Fuels Infrastructure Facility. This should be used. We want to support you in achieving clean transport.

MSC Group – maritime transport)

We are investing EUR 10 billion in decarbonisation, improving energy efficiency and enhancing the availability of sustainable fuels in ports. The company is investing in retrofitting the fleet with dual-fuel solutions. Capable to use liquified methane together with traditional maritime fuels. The sector needs to bunker buy these fuels, but there is no synthetic fuel available and only small quantities of available biofuels. We need an immense build-up of these fuels for maritime transport.

Recommendations:

- Keep pushing in IMO for global agreement by 2025 for a global fuel standard;
- Upstream fuel supply needs to be incentivised (carrot or stick or combination of both). There needs to be a more direct relationship between funds available and actual fuels. The SAF mechanism for aviation fuels should be replicated for maritime;
- Technology neutrality: need a range of fuels at scale otherwise we will not have enough to meet the targets and we need to supply different vessel types.

Sustainable fuels supply is a key challenge. What is the difference between how much you need and how much you have?

MSC Group – maritime transport)

The shipping sector needs 800 million metric tonnes of fuel to replace conventional fuels with synthetic fuels annually. To produce this would require all the renewable energy that is available in the world today.

We have recently adopted the Fuel EU Maritime legislation and amended the Annex 9 of the RED to address this. We are in competition with the US (Inflation Reduction Act). We must support domestic production in the EU, otherwise we will have to import the sustainable fuels.

CMA CGM – maritime transport)
The company has invested EUR 1.5 billion to decarbonise its activities and is also investing in fleets running on biomethane. Furthermore, transition measures have also been taken through retro-fitting part of the fleet with LNG solutions.

It is considered that solutions might come through the implementation of the recently adopted legislation (FuelEU Maritime and ETS) through secondary legislation and active engagement at IMO level to reach an agreement for a global fuel standard; Moreover, it will be essential to enhance support to innovation and increased cooperation between the transport and energy sectors to secure the fuels supply chain. The support should also come through the share of the additional costs for decarbonization. In this sense, the company has submitted a proposal in the framework of the Innovation Fund to develop a solution for the production of bio-methane. It is considered that such a development could be easily replicated in other areas. Furthermore, he underlined the need to allocate some of the revenues under the ETS for maritime related projects and to explore possibilities to extend the SAF mechanism to the maritime sector.

On sustainable alternative fuels for maritime transport, it is clear that the EU should also rely on markets from third countries. Nevertheless, more can be done in terms of cooperation amongst Member States for the uptake of the production and wider distribution.

Requested concrete recommendations in writing.

(Ferrovie dello Stato Italiane – rail transport)

Integrated and multimodal offer – so need everyone.

Need to upgrade existing infrastructure, increase capacity, minimize congestion and improve service quality.

TEN-T Regulation: interconnecting; high speed additional investment; locally connecting to ports and European corridors.

More investment - so far public, but need alternative ways to finance infrastructure: in Italy EUR 160 billion investment in infrastructure – in 10 years, but need 20-year plan.

Otherwise: risk of congestion on roads and pollution.

Look at similar experiences to attract private funding: infrastructure in energy and electricity sector.

Need clear rules.

Need clear investment plan and social funding, stable cash flow: launching a new option for biofuels for trains and buses in areas where not electrified. Tested a solution reducing emissions by 60%, European tender. NL using hydrogen (in bus); transition to hydrogen. Work together on use of private funding.

Need a longer plan for energy: bottlenecks – need three times more electricity than today and grid capacity.
Decarbonisation of aviation is especially challenging. Currently, the only answer is SAF, so we have to make it work.

Transport makes a major contribution to the economy. Aviation plays an important role in bringing about economic and social convergence across the EU. It allows regional economies to become key players and provide global connections with the rest of the world.

Where does the air transport industry stand today from a sustainability perspective?

Significant technological improvements are available: new engines burn 30% less fuel. My airline has reached a level of 60% fleet renewal, but this is not the highest in the industry. There is now the aspiration to decarbonise through hydrogen and electric propulsion in the longer term. In the meantime, we must rely on SAF, but there is still a long way to go.

As regards the regulatory framework, we have the ETS. It is badly designed and should be phased out in 2026. It preserves the inefficiency of legacy carriers. Innovation is penalised as operators are being taxed for growing the industry. It does not provide a level playing field and is discriminatory because it only applies to intra-EU flights, not long-haul. Low cost carriers (LCCs) are driving the industry in Europe and this is not fully recognised. Legacy carriers are taking the benefits of exemption from the ETS and using this to subsidise their short-haul operations. This is distorting the market against more efficient carriers.

The ETS should be revisited to create a level playing field.

With SAF, we need to make it work. The industry is investing in SAF, but SAF is not available in sufficient quantities and it is even not distributed in the European system. Most likely supply will be prioritised to the top 10 hubs. This will distort the level playing field. Airlines should be able to book and claim and take advantage of SAF where available and not be penalised for unavailability in other airports.

The President referred to the energy crisis and how we have successfully introduced the common purchase of gas (common aggregation of gas supply). Should we do something similar for SAF?

We cannot be too prescriptive here. The regulatory framework is creating the demand (obligations on fuel suppliers). The industry is in the process of creating itself. We have companies in Spain etc. Producing SAF. Production is emerging. We are developing production in Europe. There is also finance for installations. We cannot compare this with the gas market as we are at the beginning. We need to create incentives for the sector to develop. They need predictability and long-term planning.

The SAF price is currently economically unacceptable. This is a question of supply and demand. Before market dynamics come into play, it is crucial to facilitate the development of SAF. Only then
can the market effectively drive the price. SAF is approximately 5 times more expensive than traditional jet fuel, which poses challenges in meeting these obligations (Fuels Europe – fuel supplier)

Fuels Europe provides fuel for all modes of transport. We are making large-scale investments for production. The clean transition means we have to change everything: assets, products; supply chains; business models; green hydrogen; e-charging. All our members have strategies. We need EUR 650 billion of investments by 2050 to provide renewable fuels we need by then.

Challenges: these fuels should be domestically produced. Europe must produce its own fuels. Main challenge is that a clear business case for investment is not in place. First, the size of the fuels market is expected to shrink – it could be a very sharp reduction as we switch to renewable fuels only, i.e. a reduction 80% by 2050, which is not an attractive business case.

There are also technical restrictions in refineries including biofuel refineries, so that they cannot produce 100% aviation and shipping fuel. They produce a mix of products including some renewable gasoline and diesel fuel.

Absence of lead market: road fuels are highly taxed which enables tax incentives, while this is not the case in maritime and aviation fuels where there is no easy way to give tax incentives.

Investment and financing: access to all financial instruments; tax credits, contract for difference etc.

Inconsistencies: between RED, ETS, ReFuel Aviation – RED and ETS acknowledge renewable fuels but the legislation on CO2 standards for light-duty vehicles and heavy-duty vehicles does not. Transport should be an integrated sector for renewable fuels.

Need something like for batteries, and hydrogen: a Refuel Alliance. We need a robust European strategy. There are challenges in the whole supply chain for fuels: feedstocks, production, user products, regulation and long-term logistical framework, financing and prevention of investment slippage.

Neste – fuel supplier)

It is good to have ReFuelEU Aviation. It provides predictability, which is important for production and research and feedstocks. We strongly welcome that we have long-term framework.

We are making major investments. Neste has invested EUR 4 billion in 5 years. We have created SAF production capacity up to 1.5 million tonnes. This is more than 2% of the overall EU mandate. We expect our production to increase to 3 million tonnes by 2030.

How to support creation of SAF market: recommendations:

- Every 5 years there is a clear increase in the mandate: from an industry perspective it would be helpful to have a more linear ramp-up;
- Feedstocks: broad range – good to expand list in Annex 9 of RED – by aligning feedstock criteria – broad range and availability.
The supply chains to different airports will be different. The 10-year transition period with a flexibility mechanism under ReFuelEU aviation addresses this.

Aviation is hard to abate. There is no silver bullet. There are 3 pillars:

- SAF
- New zero emission aircraft
- Electrical vehicles and take-off - ePorts

The EGD and Fit for 55 have provided a good regulatory framework, but we now need accompanying measures:

SAF: ReFuelEU aviation creates demand, but ramp-up of production is needed; Neste’s assessment is encouraging but Fuels Europe warned about what is happening in the US, where a lot of money is now being invested thanks to the IRA. We need to scale up and create a critical mass.

My airport created a small fund to bridge the gap; but the price of SAF is still too high. We need incentives to ramp up production. We also need a book and claim system. Regional and small airports will struggle to have sufficient SAF supply. Price transparency is needed throughout Europe.

In order to accelerate green investments in infrastructure, some public funding will be needed to leverage private equity. We are concerned about the future for private equity investors if we don’t create the right conditions for investment.

Airports can become energy hubs not just transport hubs: production, storage and distribution of renewable energy (hydrogen). For this there needs also to be incentives. A framework is needed at EU level. There are distortions with taxing fuel at national level. This must be managed by the EU.

Renewable energy is key. In the future we will need to speak to DG ENER, not just DG MOVE.

What are the precedents and does book and claim work?

It exists in other industries like energy. Book and claim already works, it can be replicated–from other industries.

European ports have to reinvent themselves – multi functional: logistic hubs, but have a role as energy hubs green fuels for maritime industry; production of alternative fuels to have plants in the ports; production and consumption at ports play a major role. Moreover, ports are essential for the uptake of offshore wind energy farms and play a crucial role also in the framework of military mobility.
Role of ports is changing: investment needs EUR 80-100 billion euros. Investments in green transition are growing and are now reaching between 20 to 25% of the overall investments. Nevertheless, these investments are not easy as the business case is not always positive as the return on investments is slower and riskier.

- This new role of ports requires different engagements, in particular with the energy sector and related stakeholders, also at institutional level. Ports require a level playing field for all actors involved, with enforcement of the ETS and AFIR legislations (OPS at ports) and an uniform application of state aid approach within the EU. REPowerEU: goals to reach in 2030, investment decisions now for planning purposes.

Transport & Environment – environmental NGO

Climate change and transport sector: 5% of GDP and 25% of GHG emissions – biggest polluter in Europe as a sector. If current trends continue: 40% in 2030 – will be more and more interest in transport decarbonisation.

It’s also an opportunity: success of China with EVs and batteries: they have the products we need and are successful, so we are concerned.

The EU Green Deal will radically reduce transport emissions, by 70% by 2050, but that still leaves a gap. If we want to deliver, we need:

- Investment certainty: we cannot question the direction of travel: COM that everything is agreed will be maintained: batteries, SAF
- Investment challenge/gap: public purse to; 1 trillion investment plan over the next 10 years like the US. Not just the size, but also simplicity: grids (capacity and distribution); supply chains (competing with US and China: need to spend public money for our companies too); We must ensure simplicity as we are competing with the US where IRA is very simple for companies whereas in the EU it is very complicated to get money. We should build on the AFIF fund and ensure minimum paper work. Look at what works in MS: scaling up charging infrastructure – avoid repeating mistakes.
- Sustainable fuels: 70% solution is electrification. As for biofuels, note that the planet’s population will rise to 10 bn people who need food. Biofuels are not scalable, the only thing that is scalable are hydrogen-based e-fuels even though they are highly inefficient. In aviation, the fuel-related obligations are placed on the fuel suppliers which is good as they have the expertise; this is missing in the maritime sector where it should also be the job of the fuel supplier. efuels made in Europe.
- Sustainable fuels are thus e-fuels which will be scarce so they need need to be prioritised for aviation and shipping.

ECSA – maritime transport

On the role of the European shipowners, it is confirmed that European companies control 40% of global fleet. In the current geopolitical situation, the sector is instrumental in avoiding energy dependency Russia.
New avenues have been materializing for the shipping sector together with the Green Deal. In particular, the uptake of clean fuels and related technologies represent the “new international battlefield” where the EU ecosystem has a huge opportunity. Nevertheless, shipping remains truly international and most services are provided outside EU borders. In this sense, the sector is exposed to international competitors. In this framework the lack of availability of clean fuels and the need to invest in advanced biofuels, new engines and equipment remain essential.

The price gap for the transition to clean technologies remains too high and reaches up to 4 or 5 times the price of conventional solutions. To complete the clean transition of the sector, investments amounting to EUR 500 billion per year should be completed. ECSA suggested to use the ETS revenues to bridge the price gap with a specific earmarking for the maritime sector.

(VARD – maritime transport)

The shipbuilding sector is also suffering. Data confirm that the EU sectoral ecosystem is shrinking, suffering from the competition of low-cost products coming from third countries (mostly China).

Nevertheless, Europe remain the hub for key technologies for decarbonization and is the reference market for specific highly technological solutions in shipbuilding. For this reason, EU should compete in the world market on the technology edge (estimated at 10 to 20 years ahead of the third countries markets) and not on the price. This innovation is possible thanks to an increased focus on research and innovation but is also supported by proper investments in alternative fuels solutions (including OPS). Furthermore, standardization and predictability on the choice of sustainable alternative fuels are also essential to channel investments in the shipbuilding sector.

(Milence – charging infrastructure)

Milence is a company that builds heavy duty charging infrastructure for ports, airports, and for zero emission heavy-duty vehicles along highways.

For trucks, low cost is essential because of the low margins in the sector.

Very pleased with the renewed AFIR and with AFIF. However, innovation is not getting enough attention. Every 60km, a fast-charging station with at least 1MW is required. Thus, a higher valuation of innovative aspects of truck charging would be highly welcome.

In preparation of the Scope 3 Regulation for 2025, a lot of transport buyers are putting this into their plans. We are therefore in an extreme hurry.

No further change of legislation is required, now the focus must be on implementation to give certainty to trucking companies.

Stress the importance of grids. Also, stress the importance of synergies: today, even in the presence of a wind farm next door, we need to apply for a new grid connection.

IT integration is critical, and so is very strict cybersecurity regulation.

(FEPORT – maritime transport)
The association represents terminals and cargo handling operators. It is considered that it will be crucial to enhance the connectivity of ports with their inland terminals and with the transport network. The sector is making important progress with investments in green equipment, digitalization, and hard and soft infrastructure. Nevertheless, more dedicated and easier funding opportunities should be developed.

The terminals and handling operators will also benefit from improved solutions for the shipping sector, to be supported also through dedicated ETS revenues. Moreover, challenges related to alternative fuels storage capacity and permitting procedures should be faced.

**Airbus – air transport**

Aviation is a global business. We must therefore recognise that there are global standards, global competition, and the different regional blocs are competing. The costs of the clean transition are enormous: EUR 800 billion by 2050. We must therefore pay attention to financial and competition aspects. Given the long cycle of the aircraft manufacturing sector it is important to address and plan for the short-, medium- and long-term today.

Taking this into account, we recommend the following necessary measures:

- Operations and air traffic management: we can reduce emissions by 10% through implementation of the Single European Sky. This is very difficult. There are a lot of efforts through technology with SESAR and the digitalisation of air traffic management.
- Sustainable Aviation Fuels (SAF): these are necessary to decarbonise aviation in the short and medium term. We need more SAF projects in Europe. The targets from 2030 will be very difficult to meet. Many projects are going to the US (Inflation Reduction Act). For European airlines, SAF are much more expensive than conventional fuels. We need to incentivise and reduce the price gap. There are currently too many standards. There should be convergence through ICAO. Incentives could include generating value by demonstrating benefits for passengers using SAF, e.g. the eco-labelling scheme (ReFuelEU Aviation).
- In the longer term, more disruptive technologies are being developed: electric aviation and hydrogen propulsion. However, the huge renewable electricity demand from aviation (to produce synthetic fuels) must be factored in. Airports need to be connected. We must prepare on the energy side. We need scaled hydrogen production and to identify hub locations to serve airports. Rules and regulations for hydrogen need to be designed.

**DG COMP**

The Commission has appropriate frameworks to enable us to authorise state subsidies in clean mobility, notably in cases where we identify market failures, such as the current roll-out of recharging infrastructure. This is also possible for investment in zero emission vehicles (other than aircraft). We are currently also considering several interesting cases for SAF production, and even the acquisition of clean vehicles.

We also have the Important Projects of Common European Interest (IPCEI): four have already been approved and another one is pending relevant to the transport sector. We are also working on state aid guidelines for multimodal transport.

**ACEA – road transport**
ACEA is fully behind the need to decarbonise, and also wants to keep Europe as an automotive powerhouse. Therefore, we need a stronger business case for the green transformation, by combining the Green Deal with an industry deal. Recycling and the recovery of raw materials are crucially important.

On infrastructure, content with AFIR but it is still not ambitious enough notably for trucks but also for cars. Public charging infrastructure must be treated as critical infrastructure.

Financing is crucial, especially vis-à-vis China and the US. Funding should be allocated in a faster and simpler way, and the full power of public procurement should be unleashed.

More measures are needed to sustain market demand. Whenever incentives are stopped, the demand collapses. Regarding the incentives for electric vehicles, ACEA suggests considering how EU funds could be used for cars notably in those Member States where ramp-up is slow. ACEA also suggests a mapping of needs, and of the lessons learned.

Summing up, the direction is clear but we must work on the ‘how’.

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**MAN – road transport**

The pathway is clear, and it is electrification. The CO2 standards for heavy-duty vehicles as agreed in trilogue are a good solution; the final vote in the Parliament on Wednesday is wobbly but for us it is needed for reasons of planning security.

For trucks and buses, 97% of the emissions are in the use phase. Hub-to-hub transport is easier to electrify, but long haul is most efficient for the reduction of emissions. Thus, the public charging infrastructure is a top priority. Happy with AFIR but there is still a gap for trucks: 50,000 points are needed but AFIR delivers only about 9,000. This implies that we must build around 30 charging points per day until 2030. There is a need to monitor the infrastructure roll-out in the Member States.

The clean power demand for trucks amounts to around 3,000 windmills in 2030. Agree with T&E that grids and green electricity are a top priority. Thus, we want to focus on the enabling conditions in the infrastructure, including grids. It is important to avoid a fragmented situation in the EU, with several Member States lagging behind.

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**SEVA – road transport**

Grids and distribution networks are key. The cherries are already picked in terms of charging locations. We need to be quicker in the build-out, the deployment of charging infrastructure is taking too long.

Connection to the electricity grid is an important issue. SEVA calls for more transparency, including more visibility about free capacity all over the grid, in a digital manner. For the grid development, vehicle-to-grid technology can save more than 30% of grid requirements but this also requires work in the Member States on a progressive regulatory framework on electricity pricing structures. The distribution system operators (DSOs) are too conservative in this respect.
Digitalisation is key, as it is required for smart chargers and innovative business models. For this, cybersecurity is essential.

**(FEPORT – maritime transport)**

We need more money for transport in order to enhance the connectivity of ports.

Climate risks from sea waters and river waters must be addressed (adaptation).

**(Solaris – road transport)**

The urban bus sector is the poster child in the transport transformation. Lately more than 40% of new city buses were zero emission or low emission vehicles. The majority are battery electric but there are also some hydrogen fuel cell buses - already over 200, and a further 100 in the backlog.

Legal standards are needed for hydrogen fuel, currently there are no regulations on the use, storage or maintenance of hydrogen vehicles. In some countries such as HU there is a need to specially register and insure these vehicles.

As for the biggest challenge in bus industry, competition from third countries is top. In the US, public procurement must ensure over 80% of local content while no such requirement exists in EU.

**(SGI Europe – social partners)**

In public procurement, green criteria can really make a difference.

On financing, a bit of self-criticism for our membership: my members from urban public transport see the CEF as the main or even exclusive framework. But we can build a lot with EIB. Thus we must increase the dialogue with you, to change mindsets and increase the uptake of loans.

Regarding access to data and the need for brutal transparency: this can be acceptable but then it has to apply to both public and private operators.

**(ASFINAG – road transport)**

ASFINAG is the operator of the Austrian federal roads. Regarding charging infrastructure, they are committed to implement 1,500 charging points for light-duty vehicles and 1,500 for trucks in 2035. This will go beyond the AFIR requirements.

The location of truck chargers is very important.

The ramp-up for e-charging needs time, so the 2025 goals will probably not be achieved but he is much more optimistic for the 2027 goals. There is a need to find a solution for 2025.

Public procurement: ecosocial criteria should be made mandatory at EU level at next revision of public procurement legislation.
There is a need for a market for the rental of electrical construction equipment, here subsidies could help.

Emphasize the need for green energy. ASFINAG will build its own solar and micro wind plants. We need a European regulation to support fast green energy supply.

Lunch session of the Clean Transition Dialogue on Mobility

The lunch session began with the intervention of DG MOVE, DG ENER, DG GROW Directors General as well as Deputy Secretary-General Elisabeth Werner and EIB representative Neil Valentine.

(DG MOVE) recognised the very diverse composition of the transport demands that might go in different directions. For instance, for sustainable alternative fuels, one hand some stakeholders request technological neutrality to cover for the sector needs in the broader possible way; on the other hand, some actors would welcome more predictability to ensure stable investments. insisted on the implementation phase of the Green Deal related legislation, accompanied thanks to leveraging private funding opportunities, for instance through combination with EU and public funding, as for the Alternative Fuels Infrastructure Facility (AFIF) supported under the Connecting Europe Facility (CEF) programme. Moreover, there should be additional work on simpler permitting procedures, enhanced public procurement rules a well as attention to data and related cybersecurity threats. She concluded by emphasizing the need to support upskilling for workers in the transport sector.

(DG ENER) acknowledged the importance of the transport sector as consumer/user as well as supplier of energy in the internal market. The work on the secondary legislation for the implementation of the newly adopted energy related legislation will continue in the coming months and is expected to benefit from the exchange with stakeholders, including from the transport sector. In this framework it will be essential to tackle issues such as grid investments, the role of Distribution System Operators (DSOs), alternative fuels storage and energy efficiency.

(DG CLIMA) recognised the innovation shock brought forward by the Green Deal and the importance to also ensure the sectoral competitiveness. Some results of the recently adopted legislation can already be observed, especially in the framework of the ETS, for which important CO2 reduction has been reported compared to 2005 (-47%). As result of the ETS, opportunities to support the green transition are open under the Innovation Fund, financing decarbonisation, also for aviation and maritime transport. For the latter it is expected to allocate EUR20 million under the upcoming calls. also highlighted the positive experience of the hydrogen bank pilot auction and the possibility to replicate this experience for batteries or for sustainable alternative fuels for the aviation and the maritime sector. Furthermore, this scheme allows Member States to top-up with allocations from other EU spending programmes.
reminded of additional opportunities under the InvestEu programme, which triggers private investments supporting decarbonization. In her intervention stressed the role of the transport sector in the single market. As a result of recent single market report, the transport ecosystem is at the forefront on digital and robotics uptake and greening investments. Furthermore, a reduction of foreign direct investments (FDIs) could be observed for the sector. Through the Net-Zero industry act it will be important to continue working on easier permitting for clean zero technologies and stress the benchmark for the manufacturing capacity of strategic net-zero technologies to meet at least 40% of the EU’s annual deployment needs by 2030. On Public procurement she highlighted the attention the Commission is putting in including qualitative criteria for the award. She also called for the support of the European industry, especially for the maritime sector, focusing on innovation, for instance taking the opportunity to add value to the European shipping industry for the challenges related to the uptake of hydrogen (transport).

underlined the importance of the clean transition dialogue on mobility to identify synergies and commonalities and pave the way for a successful implementation of the legislative framework adopted in the past months. The role of transport is expected to be further underlined in the single market report which is being developed under the responsibility of former Italian prime Minister Enrico Letta emphasised the importance of the uptake of digital solutions for transport as well as the availability and affordability of sustainable alternative fuels to achieve the overall EU decarbonisation objectives. She confirmed that the outcome of the dialogue will be included in the stock-taking report expected to be published on Wednesday 10 April.

explained the role of the EIB as partner to the European Commission for the implementation of the EU policy, including the Green Deal. The Bank adopted its own Transport lending policy and cooperated with EU spending programmes to support the green transition in the transport sector. underlined the new focus on sustainable alternative fuels and the readiness of the European Investment Bank to engage with stakeholders to find viable solutions to support their uptake.

Following the morning session, (Vice-President, Safran) underlined that the Green Deal initiative has given a strong and disruptive innovation push to the aviation sector, used to incremental innovations only until then. Together with the innovative solutions expected for the sector, it should be underestimated the impact that improved air traffic management technologies can have on greening aviation. The role of the upstream research, in particular through Clean Sky and the certification of operations through the European Aviation Safety Agency (EASA) will be crucial to ensure a leading role for the EU aviation, also considering the difficulties that competitors are experiencing (Boeing issues in the US).

The lunch continued with a dedicated session on skills. A keynote intervention by Neste introduced the subject, underlining the importance of upskilling of the EU transport industry to tackle the challenges of innovation, sustainability, lifecycle analysis and developing knowledge on research and capacity to grasp opportunities our of the new legislations put forward. The transport industry is facing clear problem for the recruitment of skilled workforce. Investing in education and attractiveness of the sector will remain a key challenge for the future.
Initiatives to attract young people to the transport sector might entail exchange programmes and summer jobs for students.

In her closing remarks, confirmed the challenge of finding skilled workers for the sector and also insisted on improved salaries and working conditions as an incentive to fill the workforce gap. She reiterated the importance of transport as an essential enabler for the single market and for interconnecting the other industrial ecosystems. The decarbonisation path of the entire single market is strongly linked with the one of the transport sector and vice-versa.

Concluding the meeting, thanked the participants for the frank and constructive exchange on the transport ecosystem and the challenges ahead, underlined once more the importance to ensure cooperation and coordinated engagement for both the energy and transport sector to develop a viable future EU mobility and support the industry in the challenges ahead. Moreover, he drew attention to the need to support the uptake of sustainable alternative fuels, especially for the aviation and maritime sector, supported also by an accelerated access to capital market in the EU. In this framework, it will be essential to develop solutions with strong business cases, supporting decarbonization and competitiveness. also engaged in making available a space for the industry to present challenges and ideas to tackle them.