Paris Energy Club
Spring Meeting

Thursday 21 May 2026

SUMMARY

Organised by IFP Energies Nouvelles and the French Alternative Energies and Atomic Energy Commission (CEA), the Paris Energy Club Spring Meeting, held on 21 May 2026 in Paris, brought together representatives from industry, government institutions, academia and international organizations to discuss the role of electrification in Europe's energy transition. Against a backdrop of increasing geopolitical tensions, industrial competition and ambitious climate objectives, participants examined how electrification can contribute simultaneously to decarbonization, economic competitiveness and energy sovereignty.

The discussions focused on the opportunities and challenges associated with the growing role of electricity in industry, transport and energy systems. Particular attention was given to the conditions required to develop a resilient and affordable low-carbon electricity system capable of meeting Europe's 2030 and 2050 climate goals.

The meeting also explored international perspectives, notably through an analysis of China's electrification model and the lessons it may offer for Europe in terms of industrial strategy, technological leadership and value-chain integration.

In addition, participants examined strategic technologies and sectors that will shape the future of electrification, including batteries and e-fuels. The debates highlighted the importance of securing critical supply chains, strengthening European industrial capabilities and balancing environmental objectives with economic realities.

Throughout the day, speakers emphasized the need for coherent policies that align energy transition objectives with industrial development, security of supply and social acceptability. The exchanges provided valuable insights into the choices facing Europe as it seeks to accelerate electrification while preserving its competitiveness and strategic autonomy.

1. Europe: Electrification Strategy and Challenges

The discussion highlighted the growing urgency of Europe's energy challenge, with participants noting that the continent is facing its second major energy crisis in five years. With 57% of its energy needs currently met through imports, the European Union remains highly exposed to external shocks and geopolitical tensions. Recent increases in energy prices have further underscored this vulnerability, with fossil fuel import costs rising sharply and placing a significant burden on the European economy.

Against this backdrop, speakers emphasized that the energy transition should no longer be viewed solely as a climate policy objective. Electrification is increasingly regarded as a strategic tool to enhance both economic competitiveness and energy security. Participants noted that electricity prices vary considerably across Europe and observed a strong correlation between higher shares of low-carbon electricity generation — combining renewable and nuclear energy — and lower wholesale electricity prices.

Looking ahead to 2040, the European energy system is expected to undergo profound transformation. Scenarios discussed during the session foresee a tripling of renewable generation capacity to around 1,600 GW, a doubling of electricity's share in final energy consumption from 23% to 45%, and a twenty-fold increase in battery storage capacity. At the same time, improvements in efficiency could reduce final energy consumption by one third, while dependence on energy imports could fall from 57% to approximately 30%.

Speakers also outlined the policy framework required to support this transition. Key initiatives include the forthcoming Electrification Action Plan, which is expected to introduce binding electrification targets, as well as a dedicated grids package aimed at accelerating infrastructure planning and permitting procedures. These measures would be complemented by a clean energy investment strategy supported by substantial commitments from the European Investment Bank. However, participants stressed that achieving the EU's objectives will require a significant increase in investment, from less than €300 billion annually today to approximately €660 billion per year by 2040, equivalent to around 3% of EU GDP. Mobilizing private capital at scale was therefore identified as a critical condition for success.

German Energy Transition: Lessons and Challenges

One speaker offered a critical assessment of Germany's energy transition, presenting it as a cautionary case study for Europe. Despite investments estimated at more than €500 billion and a renewable share reaching 59% of electricity generation, the expected gains in electrification and competitiveness have not materialized. Electricity demand has declined by around 20% since 2017, while the share of electricity in final energy consumption has remained broadly unchanged for three decades. At the same time, Germany continues to face some of the highest electricity prices among major economies.

Several structural weaknesses were highlighted. Although renewable deployment has expanded significantly, the overall generation potential of the German electricity system has reportedly fallen since 2010 as nuclear and coal capacity were phased out. Concerns were also raised regarding the economic viability of wind and solar generation, with participants noting the continued reliance on public support mechanisms. More broadly, speakers argued that discussions on the energy transition often underestimate system-wide costs, including grid investments, backup capacity requirements and system integration expenses.

The discussion also challenged some commonly used concepts in energy policy. Participants noted that no energy technology is currently entirely independent of fossil fuels throughout its value chain and argued that resilience should be assessed not only through carbon intensity but also through the availability of firm, dispatchable generation capacity. From this perspective, renewable energy sources alone cannot ensure system stability and must be complemented by other technologies.

Some speakers further observed that European import dependency has not declined over the past fifteen years despite substantial investments in the energy transition, questioning whether current policies are sufficiently aligned with energy security objectives.

Against this backdrop, participants emphasized the need for Europe to make strategic choices regarding carbon pricing, the future role of nuclear energy and carbon capture and storage (CCS), and the contribution

that indigenous energy resources could continue to make to security of supply and industrial competitiveness.

Electrification, Industrial Competitiveness and System Stability

A second perspective focused on the relationship between electrification and industrial competitiveness. The argument advanced was that electrification cannot succeed without a strong industrial base. While the deployment of electric vehicles and heat pumps is progressing, declining industrial activity has resulted in stagnant or falling electricity demand across much of Europe.

Participants stressed that high electricity prices have become a major obstacle to industrial development. One example cited was the manufacturing of photovoltaic panels, where a fully European supply chain would reportedly produce costs approximately twice those of Chinese competitors, with energy prices accounting for a large share of the difference. More generally, Europe was described as facing a structural disadvantage compared with the United States and Asia due to significantly higher industrial and residential electricity prices.

Concerns were also expressed regarding the growing mismatch between renewable deployment and electricity demand. According to some participants, renewable capacity is expanding faster than consumption, creating significant overcapacity in several European markets. Beyond its economic cost, this trend was seen as raising technical challenges for power system stability. Particular attention was given to the role of nuclear generation in providing system inertia and voltage support, with warnings that increasing curtailment of nuclear output could weaken grid resilience.

The discussion further highlighted the growing tension between the physical realities of the electricity system and existing market arrangements. Several participants argued that current market rules, originally designed for a relatively stable and uncongested network, are increasingly ill-suited to a system characterized by higher levels of congestion, intermittent generation and complex cross-border flows. In this context, questions were raised about whether current price signals adequately reflect system costs and reliability requirements.

Discussion Highlights

The debate on negative electricity prices revealed significant differences in interpretation. Representatives of the European Commission argued that such price signals indicate a functioning market, encouraging additional demand, storage and flexibility solutions. Other participants disagreed, contending that negative prices are often the result of subsidy schemes that insulate renewable generators from market conditions and therefore distort investment and operational decisions.

Market design emerged as another key theme. Participants noted that the current European electricity market framework was developed under very different system conditions and may require substantial adaptation. Issues discussed included the absence of stronger locational pricing signals, limitations in bidding zone configurations, insufficient cross-border coordination and support mechanisms that do not always incentivize system integration. It was noted that work is underway on a broader reflection regarding the long-term evolution of European electricity market design.

On carbon capture and storage, speakers suggested that the technology's limited deployment has been driven as much by political and societal opposition as by economic considerations. Attention was drawn to developments in China, where carbon capture, utilization and storage technologies are receiving increasing interest.

The sustainability of renewable investment models was also discussed. Participants observed that continued investment in projects with weak market economics is largely supported by a range of direct and indirect

subsidies. However, some suggested that investors are becoming increasingly attentive to the long-term durability of these support mechanisms.

Finally, discussions on Russian gas and the EU Emissions Trading System (ETS) confirmed that reducing dependence on Russian energy remains a central political objective. While the ETS was recognized as contributing to industrial electricity costs, participants noted that a review of the framework is expected after 2030. No clear consensus emerged on whether future climate ambition levels or carbon pricing mechanisms should be adjusted.

2. China's Electrification Model and Lessons for Europe

The session examined China's electrification trajectory and the lessons it may offer to Europe. Speakers emphasized that China has become the principal driver of global electricity demand growth, accounting for nearly half of the projected increase in electricity consumption through 2030. Unlike many advanced economies, where electricity demand has stagnated for extended periods, China has successfully expanded electrification across industry, buildings and transport.

Participants noted that, despite the rapid growth of renewable energy, coal continues to play a significant role in China's power system. Rather than representing a contradiction, coal was presented as a stabilizing element that supports system reliability while wind and solar generation absorb most of the growth in electricity demand. In this context, China's energy transition was characterized as a gradual process combining large-scale renewable deployment with a pragmatic approach to security of supply.

A recurring theme throughout the discussion was China's exceptional capacity to deploy infrastructure at scale. Speakers highlighted the rapid construction of ultra-high-voltage transmission networks, enabled by centralized planning and the presence of a powerful state-owned grid operator. This capacity to align infrastructure deployment with industrial and energy policy was identified as one of the country's key competitive advantages.

China's dominant position in clean energy supply chains was also discussed. Participants attributed this leadership to more than two decades of sustained investment, industrial integration and policy support that simultaneously expanded domestic demand and manufacturing capacity. Rather than advocating complete supply-chain relocation to Europe, speakers suggested that intermediate approaches combining domestic manufacturing with diversified international sourcing could offer a more economically viable path toward greater resilience.

More broadly, China's model was described as being founded on a strong alignment between long-term planning, industrial policy, infrastructure deployment and energy security objectives. Domestic electrification was presented not only as a decarbonization strategy but also as a means of reducing dependence on imported fossil fuels and strengthening national competitiveness.

Transport Electrification and Europe's Industrial Challenge

The discussion on transport focused on the profound transformation underway in the global automotive sector. Speakers identified three major trends: the growing importance of emerging markets, the acceleration of vehicle electrification, and the shift toward larger and higher-value vehicles.

China was presented as the undisputed leader in electric vehicle manufacturing and deployment. However, participants stressed that the electrification of transport is no longer limited to China and the United States. Adoption rates are rising rapidly across Southeast Asia, Central Asia and Latin America, often supported by

Chinese exports and investment. This expansion was viewed as part of a broader geopolitical and industrial strategy through which China is extending its influence across emerging economies.

Several factors were identified as drivers of this growth, including purchase incentives, favorable operating economics where electricity prices are low, supportive regulations and increasingly competitive vehicle costs. For Europe, speakers argued that the central challenge is avoiding industrial decline during the transition. Maintaining dependence on legacy technologies could undermine competitiveness, while delays in adopting new technologies risk ceding leadership to international competitors.

The electrification of heavy-duty transport was presented as a particularly significant development. Participants argued that economic factors, rather than climate considerations alone, are increasingly driving the adoption of electric trucks, especially in regions benefiting from abundant and inexpensive electricity. This trend was viewed as further evidence that electrification is becoming a structural component of industrial competitiveness.

A strong consensus emerged on the need for a more active European industrial policy. While recent initiatives were welcomed, several speakers argued that current measures remain insufficient to attract and retain large-scale manufacturing investment. Strengthening international partnerships, diversifying battery supply chains and progressively building upstream industrial capabilities were identified as important priorities.

Participants also warned of the risk of growing disparities within Europe. Differences in energy costs, industrial structures and fiscal capacity could create divergent transition pathways across Member States. Preserving economic cohesion was therefore considered essential to maintaining the benefits of the single market and ensuring broad support for the transition.

Industrial Ecosystems and the Sources of China's Technological Leadership

The session also explored the industrial and innovation dynamics underpinning China's leadership in batteries, electric vehicles and clean energy technologies. Speakers argued that China's success results from a combination of long-term strategic direction and market-driven entrepreneurship rather than from central planning alone.

A key lesson highlighted was the importance of large-scale domestic deployment. In both solar energy and electric vehicles, policy support for market creation generated learning effects, economies of scale and technological improvements that ultimately strengthened industrial competitiveness. Participants emphasized that innovation was driven not only by research and development but also by the ability to manufacture and deploy technologies at scale.

Particular attention was given to the role of industrial clusters. The concentration of manufacturers, suppliers, research institutions and skilled labor within specific regions was described as a major source of competitive advantage. Such ecosystems facilitate rapid knowledge diffusion, technological learning and supply-chain coordination, enabling continuous improvements across the value chain.

Speakers also stressed that clean energy technologies are highly manufacturing-intensive. As a result, industrial capabilities are built through production experience as much as through technological invention. This helps explain China's increasing efforts to protect strategic manufacturing know-how and maintain leadership in key segments of the supply chain.

Regarding Europe, participants suggested that technological transfer is likely to occur gradually through investment, industrial partnerships and local supply-chain development rather than through formal transfer agreements. Drawing parallels with the development of China's solar industry, speakers noted that building

a competitive battery ecosystem in Europe will require patience, sustained investment and long-term industrial commitment.

The discussion also examined lessons from China's experience with renewable integration. While infrastructure deployment has been highly successful, challenges remain in electricity market design and interregional coordination. One area that attracted particular interest was the use of time-of-use pricing, which has proven effective in stimulating demand flexibility and improving the economics of electrified transport.

Discussion Highlights
The discussion reinforced the view that industrial policy will play a decisive role in determining Europe's position in the global energy transition. Participants broadly agreed that Europe must develop a more coherent industrial strategy combining targeted support mechanisms, investment incentives and measures to strengthen domestic value chains. At the same time, several speakers acknowledged the difficulty of implementing such policies within a multi-country institutional framework designed around competition and level-playing-field principles.

Technology transfer emerged as another key theme. Participants argued that large-scale transfers of industrial know-how are unlikely to occur automatically and may require stronger incentives, industrial partnerships and supportive policy frameworks if Europe wishes to develop competitive domestic industries.

The geopolitical implications of electrification were also discussed. Several speakers noted the emergence of a divide between economies positioning themselves around electrification and advanced manufacturing and those that remain heavily dependent on fossil fuel production. While the pace of change remains uncertain, this trend was viewed as likely to shape future economic and geopolitical relations.

Finally, participants repeatedly stressed the importance of European cohesion. Ensuring that the benefits and costs of the transition are shared across Member States was considered a prerequisite for maintaining political support, preserving economic convergence and achieving long-term success in Europe's electrification strategy.

3. Batteries, Industrial Sovereignty and Dependencies

Building a European Battery Industry: Ambitions and Structural Challenges
The session focused on Europe's efforts to establish a competitive battery value chain and reduce its dependence on Asian suppliers. Speakers agreed that battery manufacturing has become a strategic priority, given the central role batteries play in electric vehicles and the broader energy transition. As batteries account for a significant share of vehicle costs and performance, maintaining industrial leadership in the automotive sector increasingly depends on securing domestic manufacturing capabilities.

Participants highlighted the exceptional capital intensity of battery production, with gigafactory projects requiring investments measured in billions of euros and often relying on substantial public support. Beyond financing, speakers emphasized the complexity of scaling production efficiently. Chinese manufacturers benefit from decades of accumulated industrial experience, allowing them to achieve higher yields, lower costs and faster industrial ramp-up than most European competitors. At the same time, battery producers face strong pressure from automotive customers seeking continuous cost reductions in an increasingly competitive market.

Despite significant investment announcements, concerns were raised regarding the actual position of European manufacturers within the emerging battery industry. Participants noted that much of the battery

production capacity being developed in Europe is controlled by Asian firms, while genuinely European producers continue to represent a relatively limited share of the market. This raises questions about whether Europe is building industrial sovereignty or simply hosting foreign production facilities.

Speakers also stressed that dependence extends well beyond cell manufacturing. Significant gaps remain in raw materials, processing technologies, manufacturing equipment and upstream supply chains. As a result, European producers face a substantial cost disadvantage relative to Chinese competitors, reflecting differences in scale, industrial integration, procurement strategies and public support mechanisms.

Battery Integration, Industrial Dependency and Strategic Choices

A second perspective examined the battery ecosystem from the standpoint of systems integration and commercial applications. Participants recalled that opportunities to develop a European battery industry existed well before the current acceleration of electrification but were largely overlooked. As a consequence, European companies entered the market later than their Asian competitors and often focused on niche segments rather than large-scale cell production.

Speakers argued that Europe is now highly dependent on Chinese battery technologies and supply chains. This dependence affects not only the sourcing of battery cells but also the technological roadmap itself, as Chinese manufacturers increasingly shape industry standards, chemistry choices and product development trajectories.

A recurring theme was the tension between short-term competitiveness and long-term industrial resilience. Vehicle manufacturers naturally seek the lowest-cost and most advanced battery solutions available, which often means sourcing from China. However, this strategy can weaken the development of domestic supply chains and increase long-term dependency. Participants noted that Europe faces a collective action challenge in which decisions that are individually rational for manufacturers may ultimately undermine the continent's industrial position.

Several speakers argued that the appropriate policy response is not protectionism through broad tariffs but rather the creation of incentives for local production. Mandatory local-content requirements, combined with stronger industrial partnerships, were identified as potentially more effective tools for attracting investment while preserving competitiveness. The possibility of requiring joint ventures as a condition for market access was also discussed, drawing parallels with policies previously implemented by China during its own industrial development.

Advanced Materials, Recycling and the Next Stage of Industrial Development

The discussion then turned to the upstream segments of the battery value chain, including advanced materials, recycling and next-generation technologies. Speakers emphasized that Europe faces a significant technological and industrial gap relative to Asian competitors but still retains opportunities to develop strategic positions in selected segments.

Cathode materials were identified as a critical area where Chinese companies currently possess substantial technological and manufacturing advantages. Participants noted that partnerships with Asian firms may therefore remain necessary in the medium term while European capabilities continue to develop.

Battery recycling emerged as a particularly important topic. Speakers described recycling as a cornerstone of Europe's long-term resource sovereignty strategy, given the continent's limited domestic reserves of critical minerals. However, current market conditions often make it more economically attractive to export intermediate recycling products to Asia for processing rather than refining them within Europe.

Several participants argued that regulatory measures, improved traceability requirements and investments in processing technologies will be necessary if Europe wishes to develop a competitive recycling industry.
Attention was also given to emerging technologies such as solid-state batteries. While commercialization remains at an early stage, participants suggested that these technologies could create new opportunities for European industry, particularly in specialized applications requiring high energy density. Nevertheless, success will depend on rapid industrialization and sustained investment in research, development and manufacturing capabilities.

Across all segments of the value chain, speakers identified common challenges, including higher production costs, lengthy permitting procedures, slower project execution and weaker vertical integration than in competing regions. These factors were viewed as significant obstacles to Europe's ambition of building a fully integrated battery ecosystem.

Discussion Highlights
The discussion highlighted broad agreement that Europe must strengthen its battery industrial strategy if it wishes to remain competitive in the global energy transition. Participants stressed that public support should increasingly focus on operational competitiveness and industrial scale-up rather than solely on capital investment. Several speakers pointed to production-based incentives as a potentially effective mechanism for helping European manufacturers overcome initial cost disadvantages and accelerate learning curves.

There was also a strong consensus that local-content requirements would be more effective than tariffs in supporting industrial development. Such measures could encourage international manufacturers to establish production capacity within Europe while avoiding the cost increases that broad import restrictions could impose on downstream industries.

Technology transfer was another recurring theme. Participants noted that Europe may need to adopt a more assertive approach to industrial partnerships if it wishes to acquire strategic know-how and accelerate the development of domestic capabilities. Several speakers drew parallels with the policies that contributed to China's own industrial rise and argued that Europe should be willing to explore similar instruments adapted to its institutional framework.

The importance of battery recycling was repeatedly emphasized as a strategic element of long-term resource security. Building domestic recycling capacity was viewed not only as an environmental objective but also as a means of reducing dependence on imported raw materials and strengthening industrial resilience.

Finally, speakers identified execution speed and industrial coordination as Europe's most significant structural weaknesses. Long permitting timelines, fragmented decision-making processes and insufficient coordination between Member States were seen as major barriers to competitiveness. Participants stressed that faster project development, greater policy coherence and stronger cooperation between industry, research institutions and public authorities will be essential if Europe is to close the gap with global competitors and establish a sustainable position within the battery value chain.

4. E-fuels: Complement or Strategic Alternative?

Sustainable Aviation Fuels and E-fuels: An Essential Pathway for Aviation Decarbonization
The session examined the role of sustainable aviation fuels (SAF) and e-fuels in achieving long-term aviation decarbonization objectives. Speakers broadly agreed that alternative fuels will be indispensable if the sector is to meet its climate targets. While technological innovations such as hydrogen- or battery-powered aircraft may play a role in specific market segments, participants emphasized that medium- and long-haul aviation,

which accounts for the majority of sectoral emissions, will continue to rely on liquid fuels for the foreseeable future.

From this perspective, SAF was presented not as a transitional solution but as a long-term pillar of aviation decarbonization. In addition to reducing lifecycle carbon emissions, SAF can also mitigate certain non-CO_2 climate impacts of aviation by lowering particulate emissions and reducing contrail formation. Participants stressed that no single production pathway is likely to provide a complete solution. Existing technologies based on waste oils and fats are commercially mature but constrained by feedstock availability, while advanced biomass and power-to-liquid pathways offer greater long-term potential but face significant economic and industrial challenges. As a result, the future SAF market is expected to rely on a combination of complementary technologies.

A major concern raised during the discussion was the gap between regulatory ambitions and industrial readiness. While the ReFuelEU framework provides long-term market visibility through progressively increasing blending mandates, speakers questioned whether e-fuel production capacity will be sufficient to meet the specific sub-targets established for 2030. Participants warned that ambitious mandates without adequate supply could create significant compliance risks and undermine confidence among both producers and consumers.

The Airline Perspective: Commitment Amid Competitive Pressures

Representatives from the airline sector emphasized that fleet renewal remains the most immediate and cost-effective lever for reducing aviation emissions. Significant investments are already being made in new-generation aircraft that offer substantial improvements in fuel efficiency. However, speakers stressed that fleet modernization alone will not be sufficient to achieve net-zero objectives and must be accompanied by large-scale deployment of sustainable fuels.

The airline industry's commitment to SAF was illustrated by voluntary purchasing programs that already exceed regulatory requirements. Demand is increasingly supported by corporate customers seeking to reduce Scope 3 emissions, cargo operators promoting lower-carbon logistics solutions and passengers willing to contribute to decarbonization efforts. Nevertheless, participants highlighted the considerable economic challenge posed by SAF, whose production costs remain significantly higher than those of conventional jet fuel.

The discussion repeatedly returned to concerns regarding competitiveness. European airlines are subject to increasingly stringent sustainability requirements, while many non-European competitors operate under less demanding regulatory frameworks. Participants warned that this asymmetry could lead to market distortions, traffic diversion and further erosion of the competitive position of European carriers. Several speakers argued that a mechanism analogous to a carbon border adjustment would ultimately be necessary to ensure fair competition and prevent carbon leakage within the aviation sector.

Questions were also raised regarding the implementation of market mechanisms such as book-and-claim systems, which separate the environmental attribute of SAF from its physical delivery. While such mechanisms were viewed as potentially useful for market development, participants stressed that they should not undermine Europe's industrial ambitions by encouraging exclusive reliance on imported fuels without fostering domestic production capacity.

Developing a European E-fuel Industry

The producer perspective focused on the emergence of a domestic e-fuel industry and the conditions required to make large-scale projects economically viable. France was identified as having several structural

advantages, including access to abundant low-carbon electricity, a strong industrial base and favorable regulatory recognition of low-carbon power sources.

Speakers presented ongoing efforts to develop integrated projects combining renewable electricity generation, hydrogen production, carbon capture and synthetic fuel manufacturing. Standardization of project designs was described as a key strategy for reducing costs and accelerating deployment. Several flagship projects are currently being developed, with the ambition of establishing industrial-scale production during the early 2030s.

The economics of e-fuels nevertheless remain challenging. Comparative analyses of production pathways in France, Spain and the Middle East confirmed that all can achieve substantial greenhouse gas reductions relative to conventional aviation fuels. However, production costs remain significantly above those of fossil kerosene under most scenarios. Across all configurations, electricity was identified as the dominant cost component and therefore the critical determinant of future competitiveness.

Participants noted that Europe may benefit from access to biogenic CO_2 sources that reduce production costs relative to pathways relying on direct air capture. However, these resources are inherently limited and may constrain the long-term scale of domestic production. Maintaining access to affordable and predictable low-carbon electricity was therefore considered a prerequisite for developing a competitive European e-fuel industry.

Discussion Highlights

Several themes emerged repeatedly throughout the discussion. Resource availability was identified as one of the principal long-term uncertainties. While sustainable biomass pathways are expected to play a significant role in the coming decades, concerns were raised regarding feedstock availability, competing uses across sectors and differences in sustainability standards between major regions of the world. Participants stressed the importance of international convergence on sustainability criteria to avoid market distortions and ensure environmental credibility.

There was broad consensus that regulatory stability is the single most important condition for investment. Speakers emphasized that SAF and e-fuel projects require long development cycles and substantial capital commitments, making them highly sensitive to policy uncertainty. While some flexibility may be necessary during the early stages of market development, participants warned that weakening or postponing long-term targets could undermine investment decisions and delay industrial deployment.

The enforceability of the 2030 e-fuel mandate generated particular concern. Given the absence of commercial-scale production today, several speakers questioned whether sufficient volumes would be available to comply with regulatory obligations. Rather than postponing targets altogether, participants suggested concentrating support on a limited number of large-scale demonstration projects capable of establishing the foundations of a future industry.

The debate also highlighted the importance of balancing market flexibility with industrial policy objectives. While global trading mechanisms could improve efficiency, participants argued that Europe should preserve incentives for domestic production in order to strengthen energy security, support industrial development and reduce dependence on imported fuels.

More broadly, the discussion underscored the strategic dimension of SAF and e-fuels. Beyond climate objectives, developing a domestic production base was viewed as a matter of energy sovereignty, industrial competitiveness and security of supply. Several speakers noted that Europe currently remains highly

dependent on imported sustainable fuels and feedstocks, limiting both the economic and strategic benefits of the transition.

Finally, participants acknowledged the broader economic implications of aviation decarbonization. While SAF and e-fuels are widely considered indispensable for achieving climate objectives, their higher costs may ultimately affect ticket prices, freight economics and patterns of global mobility. The transition was therefore presented not only as a technological challenge but also as a broader societal and economic question that will require continued public and political debate.