GAMA | Position Paper 2026

WINGS OF CHANGE:

A Strategy for Competitiveness, Innovation, Industry, and Investment in Europe's Sustainable Aviation Sector


GAMA
VÆRIDION
GREEN AIR MOBILITY
VERTICAL
DAHER
H55
SAFRAN
PIPISTREL
BY TEXTRON eAVIATION
ascendance
ZEROAVIA
Skyports
INFRASTRUCTURE
VOLOCOPTER
AURA
AERO
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Introduction

The European Union stands at a critical inflection point. As underscored by both the Letta and Draghi reports, Europe must move beyond a fragmented and reactive approach to innovation and competitiveness. The European Commission's ***Clean Industrial Deal*** (CID) offers a unique opportunity to shift toward a more strategic, future-facing industrial policy. For the CID to fulfil its potential in supporting strategic sectors and enabling transformative innovation, policymakers must engage more deeply with industry, place a stronger focus on the specific needs of deep tech companies – often the main drivers of innovation – and take bold, coordinated action.

Demand for air travel in Europe remains strong and is expected to grow, with Eurocontrol forecasting an average annual growth rate of 1.6% until 2050[1]. Meanwhile Europe, with its strong and innovative sustainable aviation sector, is well positioned to lead a transformation in how and where we fly. The continent boasts a strong cohort of ambitious disruptors working to bring sustainable aircraft technologies to market. It is also home to a globally respected safety and certification authority, the European Union Aviation Safety Agency (EASA) which has taken an internationally pioneering role in developing regulatory frameworks for electric and hybrid aircraft.

Thanks to EASA's leadership and Europe's innovators, the EU remains the only region to have successfully certified both a fully electric aircraft (Pipistrel's Velis Electro) and, more recently, an electric engine (Safran's ENGINeUS 100) with additional projects in the pipeline, such as the Integral E of AURA AERO and the Microliner of Vaeridion, both working closely with EASA through pre-application contracts to accelerate certification momentum.

Furthermore, Europe with its extensive network of regional aerodromes (around 500) and heliports (over 6000) offers an ideal landscape for the introduction of zero and low emission aviation products. This is further bolstered by the legislative groundwork from the previous Commission which has paved the way for the deployment of airport charging infrastructure accelerating the introduction of battery electric, hydrogen, and hybrid electric aircraft.

However, Europe's sovereignty in innovative and industrial clean aviation needs to be reinforced in meaningful ways. In 2024, pioneering companies such as Lilium and Volocopter declared bankruptcy, and in 2025, Heart Aerospace, developer of a hybrid-electric regional airliner, announced its relocation from Sweden to California in search of a more supportive regulatory and funding environment. These are warnings. Despite Europe's ambitious and pioneering regulatory framework and an abundance of innovative companies and talent, European companies need more public and private investments to tackle the challenge of industrialisation at scale.

1. Eurocontrol Aviation Long-Term Outlook: Flights and CO2 emissions forecast 2024-2050. https://www.eurocontrol.int/publication/eurocontrol-forecast-2024-2050 (accessed: June 2025).

The roll-out of the Startup and Scaleup Strategy[2] is a step in this direction. Nevertheless, we need more specific aviation focused measures to help this sector thrive as well.

This paper presents a blueprint for action for the aviation manufacturing sector. This is especially timely given that this sector was not dealt with in meaningful detail in the CID. This paper outlines how the European Union can empower its Future Flight Coalition – the innovators, investors, and infrastructure actors committed to transforming aviation. Supporting this ecosystem is essential not only for keeping Europe relevant as a manufacturing hub, but for generating positive synergies and spillovers across other key sectors, including raw materials, batteries, permanent magnets, clean hydrogen, advanced materials, and smart mobility – all of which contribute to Europe's strategic autonomy.

The recommendations in this paper come as an addition to the 2024 GAMA White Paper: Recommendations for Accelerating the Development of the Electric Aviation Sector in Europe.

The paper starts off by presenting a Report Card to European legislators and policymakers which takes stock of the progress made towards meeting the recommendations contained in the 2024 paper, before continuing to give a snapshot of where the industry stands today and how it can help the objectives of the CID. This is followed by two parts containing additional recommendations focused on i) mobilising finance and industrial policy for the sector, and ii) focusing on measures that can help create a market for these products, by stimulating customer demand.

Contents

2. https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/jobs-and-economy/eu-startup-and-scaleup-strategy_en (accessed: June 2025)

Report Card on Progress So Far

In April 2024, GAMA published a set of comprehensive recommendations on policy improvements needed to **Accelerate the Development of the Electric Aviation Sector in Europe** (which encompassed recommendations for battery-, hydrogen- and hybrid- electric powered aircraft). The paper followed the European Parliament's own-initiative reporttitled: **"Electric aviation – a solution for short- and mid-ranged flights"** from January of 2024 which called on the European Commission to give this strategic sector more consideration.

GAMA's 2024 paper was widely circulated among the Commission services and the European Parliament.
The table below takes stock of the progress made on GAMA's primary policy asks from April of 2024, while also pointing out lingering shortcomings and suggesting ways to make further progress on them.

GAMA Policy ask	STATUS	OUTLOOK
CREATING THE APPROPRIATE FUNDINGS FRAMEWORK		
Fund Sustainable Aviation Through the European Investment Bank (EIB)	☹	EIB lending practices remain unchanged. The publication of the CID provides an opportune moment to reevaluate the EIB's mandate and move towards new EIB products to encourage public-private risk sharing for clean aviation products. To help quantify climate impacts, improved carbon accounting and a dedicated clean aviation investment facility could lead to more appropriate return on investment metrics for the sector.
Revise the General Block Exemption Regulation (GBER)	☺	In the CID, the Commission announced that it would be putting forward a revised GBER to address shortcomings of the existing framework. This is good news, although details remain unknown at time of writing.
Innovation Fund Reform	😐	The EU Innovation Fund offers significant potential for clean aviation technologies, but access remains limited. Its preference for high technology readiness levels excludes many early-stage manufacturers, while complex application processes strain SME resources. Flights with aircraft below MTOW 5700 kg are still excluded from the scope of Emission Trading System (ETS) Directive which does not allow the Innovation Fund to support key decarbonisation technologies that are crucial for upper segments of the aviation market (see annex I h EU ETS-Directive). Emissions assessment methods are poorly suited to electric aircraft as well as regional aircraft and the fund excludes critical infrastructure like charging and refuelling. As a result, few aviation projects succeed in securing support. Tailored adjustments, such as simplified applications, aviation-specific baselines, enabling the Innovation Fund to support aviation decarbonisation technologies regardless of the scope of flights included in the ETS scope, and support for integrated projects are needed to unlock the fund's value for clean aviation.
Simplification and Streamlining of Horizon Europe / Joint Undertaking Funding	☹	Access to these funds remains limited for smaller general aviation manufacturers and startup/scaleups due to high administrative barriers and cost associated with participating.

Access to EIC Accelerator for Scaleups		While the EIC Accelerator is an excellent tool for Startup/Scaleup (equity) funding, current eligibility criteria require that the applicants must be either an SME or a single company classified as a small mid-cap (up to 499 employees). The cap on employee numbers is arbitrary and such strict requirements impede numerous deep tech companies developing innovative products in line with the scope of the Accelerator from accessing its funds. The 499 employee limit should be reconsidered in line with the objectives of the CID. Additionally, expert opinions on proposed projects are not of the highest quality, with the opinions often containing factually incorrect or misleading statements. To make the best use of this tool, the pool of experts should be renewed, and due care should be given to select experts with expertise in aviation and aerospace engineering.
	BUILDING ROBUST SUPPLY CHAINS	
Synergies with Battery Industry		While the **European Battery Alliance** and the **European Raw Materials Alliance** together with and raw materials strategies exist, there has been little targeted effort to align these supply chains with the specific needs of aviation (e.g. lightweight, high-discharge batteries, or hydrogen storage systems). Infrastructure for recycling raw materials and critical minerals is also not yet robust or linked to aviation applications. Aviation has mostly been an afterthought in EU clean tech supply chain planning, which still heavily focuses on automotive.
Strengthening Recycling Infrastructure		
International Partnerships and Trade Agreements		
	EU POLICY ASKS	
Alternative Fuels Infrastructure Regulation (AFIR) National Plans		While Member State level national plans are not expected before the end of 2025, electric and hydrogen charging infrastructure investments for low or zero -and low-emission aircraft are not likely to be heavily emphasised in these plans. Any future evaluation or revision of the AFIR should place a heavier emphasis on rolling out the necessary charging infrastructure to speed up the adoption of these aircraft.
Recognition for and Mainstreaming of Alliance for Zero Emission Aviation(AZEA)		AZEA gathers some of the most forward-thinking minds in European aerospace, uniting innovators and industry leaders committed to zero -and low- emission flight. However, AZEA continues to lack political recognition due to its non-binding status, weak integration into EU industrial policy, and limited visibility. It has no formal role in major funding instruments or strategic initiatives like the Net-Zero Industry Act. Under the CID, AZEA should be institutionalised as an advisory body, linked to funding and regulatory processes, and given dedicated resources. High-level political backing and integration into industrial strategy would elevate its influence and ensure clean aviation priorities shape EU policy and investment decisions.

EASA Funding and Resources	☹	**EASA** has made significant efforts to prepare for the certification of electric and hybrid aircraft, including by developing a certification basis for piloted electric vertical take-off and landing (eVTOL) aircraft, electric motors and through launching regulatory innovation forums. However, EASA's staffing and budget remain constrained, especially given the rapid influx of new technologies. The gap between innovation pace and regulatory throughput is growing. More sustained and targeted funding is needed to ensure certification processes don't become bottlenecks. It is essential that EASA is allocated a larger EU subsidy in the 2028-2034 Multiannual Financial Framework (MFF).

Europe's Next Flight Path: Technologically Agnostic, Collaborative & Tailor-Made

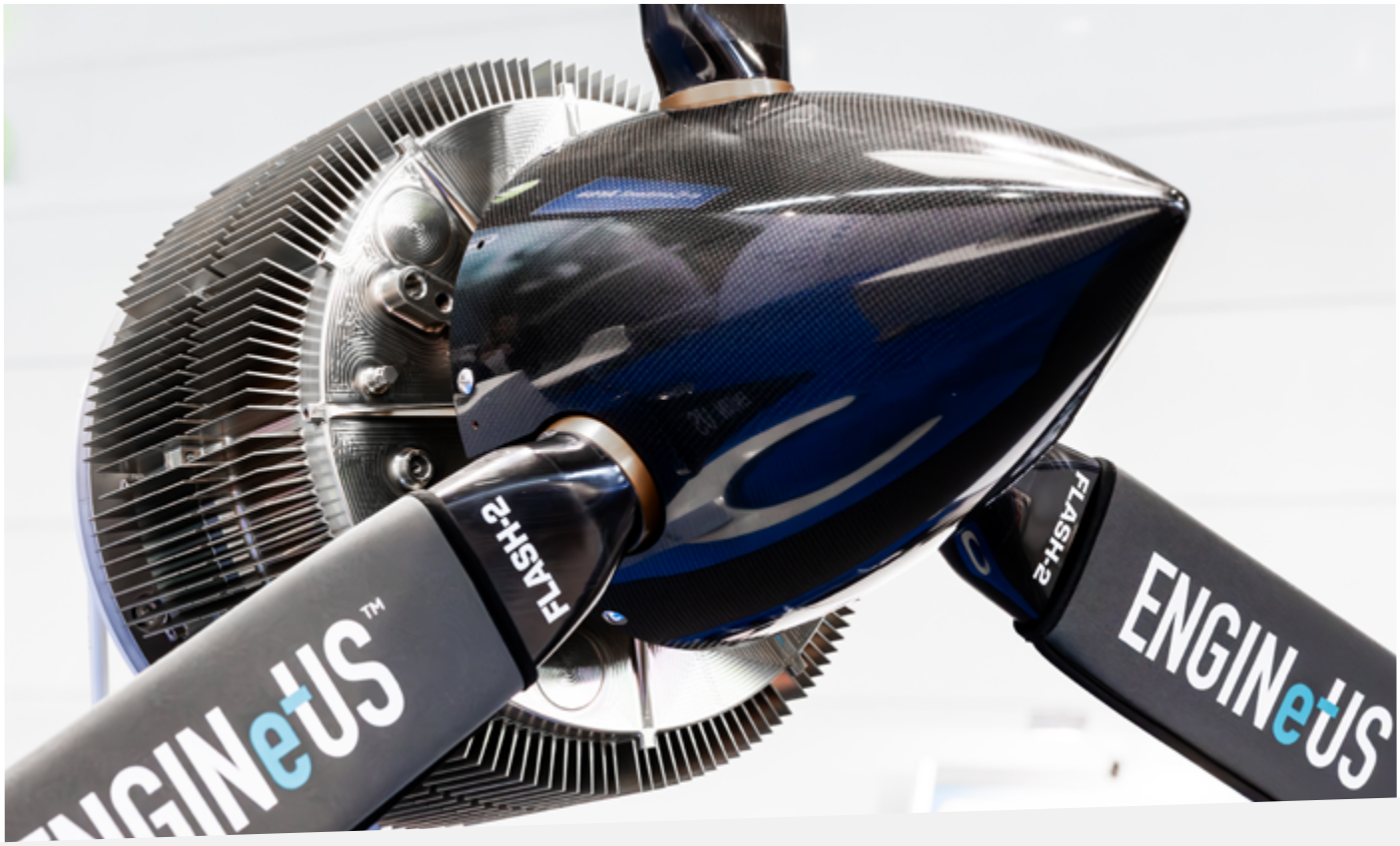
Europe's clean aviation ecosystem is made up of a wide array of established manufacturers and new market entrants working to develop clean aviation technologies. Some innovations will take the form of incremental improvements to existing technologies, such as more efficient engines, eventually certified to operate on 100% sustainable aviation fuel (SAF). Others will emerge in the form of disruptive new propulsion technologies, including clean-sheet battery-electric and hydrogen-powered regional or urban aircraft. Still others will focus on hybrid-electric aircraft making the best use of existing and new technologies.

As Europe looks to enter a new, clean industrial manufacturing boom, regulatory frameworks and access to funding must remain technology-agnostic and supportive of all solutions that can help decarbonise our skies while powering this industrial renaissance. Supporting Europe's home-grown aviation industry in this way will give the EU the best chance of remaining an aerospace leader globally, fuelling virtuous technological spillovers to other industries as well.

There are several examples of national programs where manufacturers are working in tandem to develop new, clean aviation technologies – be they electric, hydrogen or hybrid-electric. National-level initiatives like CORAC in France, LUFO in Germany, or the CDTI in Spain are important catalysts for collaboration between OEMs.

The landscape of ongoing research and manufacturing efforts for innovative and disruptive products is diverse and will cater to several different use-cases (see Appendix I for an overview). Beyond positioning Europe as a global hub for aviation sustainability, many of these products will also have promising potential for dual-use applications, as their strategic relevance becomes increasingly obvious for several European militaries. This is all good news. However, international competition in this space is fierce, and success for Europe's companies is far from guaranteed.

In a sector where time to market is very long, where capital requirements are large and where companies – sometimes startups/scaleups – do not have cross-subsidization means, the most important requirements to succeed are tailored, supportive policies and targeted investments to facilitate the transition from innovation to market readiness. Importantly, no one company is likely to succeed alone. Joint research programs and technology accelerators, support for startups, scaleups as well as well-established OEMs and a mindset of cross border collaboration will be fundamental to powering this industrial boom in clean aviation.



Capital and Capability: Mobilising Finance and Industry for Sustainable Aviation

Despite their promise and strategic importance, many of Europe's high-growth, clean aviation companies (established ones and new entrants alike) are struggling to secure the funding they need. Developing a new aircraft, especially a clean-sheet, zero-emission one, is slow, expensive, and risky, often taking more than 10 years and requiring hundreds of millions of euros (or even billions for bigger zero emission aircraft) before any revenue is generated. Even incremental advances, such as retrofitting existing airframes with hybrid-electric engines, demand extensive testing, regulatory scrutiny, and significant capital.

The problem partly stems from the fact that traditional return-on-investment (ROI) models do not align with the timelines for developing and manufacturing aircraft. Banks rely on standard models, favouring predictable revenue streams and faster returns. Conventional venture capital tends to invest in asset-light business models and only highly specialised funds with extensive industry know-how are able to finance capital-intensive ventures such as aircraft manufacturing. Government programs, in turn, are traditionally geared towards R&D with perennial cycles and small-ticket sizes. State-backed venture funds often lack flexibility in terms of eligibility criteria (employee cap, revenue requirement, restrictive matching requirements, etc.) excluding many innovative disruptors from the outset, even when they are developing on technologies essential to Europe's green transition and competitiveness.

The good news is that today's challenge can be turned into strategic opportunities for Europe. Innovative, clean aviation R&D, development and manufacturing will support climate goals, boost regional connectivity, strengthen technological sovereignty and competitiveness all while creating growth and jobs. With global, state-funded competitors investing aggressively in this sector, Europe needs to boost European manufacturing to help ensure technological sovereignty in the spirit of the CID, or risk falling behind.

The EU needs funding frameworks, public and private, that reflect the realities of clean aviation manufacturing, including long development cycles, high upfront costs, and transformative potential. This means revising state aid rules, adapting programs like the Innovation Fund and EIC Accelerator, considering performance- and milestone-based funding structures and modernizing EIB lending policies, all in an effort to support more European manufactured innovation in this strategic sector. Having the seal of approval from the EIB for sustainable aviation products will help send a powerful message to other public and private investors. To help channel more private investment towards the sector, the Commission can also help by publishing investment guides for private and institutional investors that cover the development of the sustainable aviation sector while reflecting on Union policy objectives. Many necessary reforms are detailed in GAMA's previous paper and reflected in the Report Card at the start of this one.

Initiatives like the Clean Aviation Joint Undertaking and the Green Deal Industrial Plan have laid strong foundations for research and early-stage development. What is now needed is a bold industrial policy that ensures these technologies are built and scaled in Europe.

The challenges identified by the CID apply equally to sustainable aviation sector: companies need better access to capital, more tools to de-risk private investment, and a policy shift from innovation to industrial deployment. A robust European manufacturing base for sustainable aviation will secure strategic autonomy and spur growth across sectors like advanced materials, batteries, and hydrogen infrastructure.

Consequently, and in addition to the existing recommendations set out in GAMA's 2024 paper, we call on European policymakers to:

1. Establish a New Investment Platform – a 'One Stop Shop (OSS)' for Sustainable Aircraft and Propulsion Manufacturing: the OSS can be established under the proposed Competitiveness Fund. The purpose of this OSS should help facilitate the objectives of the Competitiveness Fund by collating R&D, scaleup, and manufacturing funding opportunities from EU institutions and Member States to help draw-in private and institutional investors to support innovative aviation projects. This new platform should have a dedicated team to help Micro and Small Enterprises (MSEs), startups, and scaleups tackle the immense administrative and cost burden associated with applying for EU funding, by providing affordable coaching services.

2. Shift to a 'Performance Based Funding' Mindset to Support Innovative Aviation for EU Funding: tie all EU funding (and ideally encourage Member States to adopt the same model) to pre-set performance markers, such as test flights, demonstrated range, certification milestones defined in relation to individual companies' investment journeys and state of development. Tranches of financing could be released upon reaching these milestones.
This model can be adapted to companies in the fundamental research phase all the way to companies working on industrial deployment, manufacturing and associated infrastructure rollout. This would be a more meaningful way of measuring progress, creating a level playing field for OEMs.

2a) Ensure that funding be it in the form of loans or grants - both EU and national level, always consider EU-level strategic policy objectives as set out in Commission communications, European Parliamentary resolutions, and other strategic documents drafted by the Council or EU sponsored industry alliances like AZEA.

2b) Ensure that experts evaluating applications for grants loans and other forms of public funding, are always suited to the task, unbiased and have a full understanding of EU policy objectives in relation to clean aviation.

3. Establish an EU Sustainable Aviation Manufacturing Initiative to Scale Production Capacity: This can come in the form of a dedicated Important Project of Common European Interest (IPCEI), an addition to the Strategic Technologies for Europe Platform (STEP), or a separate initiative under the CID, with the objectives of:

3a) Rapidly taking stock of red-tape and other administrative bottlenecks slowing investments in manufacturing capacity – with structured input from sustainable aviation manufacturers.

3b) Incentivising cross-border collaboration between Member State clusters to unlock the joint power of direct state aid from several Member States towards green- and greyfield investments into sustainable aircraft manufacturing capacity. This would create joint ownership of and recognition or these investments and their role in strengthening the EU's industrial base overall.

4. Enable Bundled Applications for Aircraft, Systems, and Ground Infrastructure Funding: This will allow sustainable aviation projects (which should be open to OEMs, ground infrastructure developers and operators) to apply jointly for EU funding that covers both aircraft development and enabling airport infrastructure like charging or hydrogen refuelling, increasing the business viability of these projects from the outset.

4a) Ensure that the Sustainable Transport Investment Plan makes ample provision for funding the infrastructure required to support AZEA projections on hydrogen, battery and hybrid-electric aircraft uptake.

5. Modify the EU's Sustainable Taxonomy Criteria to Boost Attractiveness of Investments into Hybrid-Electric Aircraft: The EU Taxonomy can be a powerful tool to indicate Union priorities and increase investor confidence in a sector's strategic relevance and sustainability credentials. While the manufacturing of 'zero tailpipe emission' aircraft above an MTOW of 5700kgs qualify as a sustainable activity, the realities of the sector – underscored by the industrial readiness table showcasing products currently under development – clearly show that hybrid-electric aircraft will play a very important role in bringing sustainable propulsion aircraft to market. The road towards zero tailpipe emission transport category aircraft goes through hybrid propulsion first.

Powering the Shift: Creating Demand for Sustainable Aviation

Once public and private investments into research, technology development, and industrial capacity have successfully come together to lay the critical groundwork for Europe's transition to zero- and low- emission aviation, regulators will also have to address how best to create clear and credible market demand signals. At present, aircraft and infrastructure operators and airports have little incentive to adopt these emerging technological solutions, no matter how advanced or climate-friendly they may be. To convert technological progress into widespread deployment, policymakers have to stimulate market uptake through targeted demand-side measures.

Measures to boost market adoption should be ambitious, coordinated, and feasible, as we have to get them right from the get-go.

Revitalising Europe's Marginalised Regions through Clean Mobility

The early deployment of zero -and low- emission aircraft particularly given their initially limited range and capacity, presents a unique opportunity to revitalize economically and geographically marginalised regions across Europe.

These aircraft will be ideally suited to short-haul routes (both passenger and cargo) that align with the footprint of the continent's underutilised network of regional aerodromes. Scandinavian countries, with their geographically disjointed population pockets, with no feasible alternatives to air travel offer ideal circumstances to implement scheduled hybrid-electric, battery-electric and hydrogen-powered flights, especially on routes which are already publicly subsidised under existing public service obligations (PSOs). Similarly, other regions such as Galicia in northwestern Spain, Podlaskie in eastern Poland, parts of rural Romania (e.g., Suceava and Bacău), and southern Italy's Calabria and inland Sicily face both economic underdevelopment and poor transport connectivity but are served by small airports that could be reactivated through the deployment of sustainable aviation technologies. In France, the Massif Central and parts of Brittany offer similar opportunities.

Not only can these aircraft restore mobility to these areas by enabling frequent, sustainable air links to larger hubs, but they can also help bring about an economic shift by unlocking tourism, improving access to services, and enhancing logistics for local economies. Reactivating regional aerodromes will also generate demand for new infrastructure and clean-tech jobs-supporting the development of local energy systems and advancing the 'just transition'.

When combined with targeted incentives and public investment, this regional use case strengthens the business case for early adoption and positions zero- and low-emission aviation as a catalyst for both decarbonisation and regional cohesion across Europe, while complementing broader efforts to scale up the availability and use of sustainable aviation fuels (SAF).

A practical way to advance these use cases is to build on the existing PSO framework by integrating environmental criteria into PSO tenders - particularly on short and thin routes where new aircraft technologies can deliver the greatest impact. Many regions are currently connected to larger transport hubs thanks to PSOs, which enable Member States to ensure a certain level of air connectivity for underserved or geographically remote areas.

Incorporating such environmental elements - such as recognising an aircraft's verified CO_2-reduction potential, whether achieved through sustainable aviation fuels (SAF, including e-SAF), or through the most efficient technology, including hybrid- or battery-electric propulsion - would preserve the current PSO scheme's essential-connectivity purpose while adding a clear, technology-neutral objective of reducing overall emissions.

To help finance such transitions, Member States may consider using a share of EU ETS revenues or other national and regional instruments, ensuring that existing PSO budgets and connectivity levels are maintained.

In this way, PSOs can continue fulfilling their core connectivity mandate while also contributing to Europe's broader climate and industrial objectives. The principle of integrating environmental criteria - sometimes referred to as the "green PSO" approach - has also been discussed in the work of AZEA Working Group 6, with an Issue Note expected before Q4 2025.

Leveraging Advanced Propulsion Aircraft to Strengthen Europe's Strategic Autonomy

Considering the increasingly unstable geopolitical environment facing Europe, the need to foster strategic technological autonomy has never been more urgent. Advanced propulsion aircraft – including electric, hybrid-electric, and hydrogen-powered systems such as eVTOLs, trainers and drones – offer high-potential dual-use applications that can simultaneously advance civil decarbonisation goals, industrial readiness and capacity while strengthening next-generation military capabilities. These systems provide distinct operational advantages: low acoustic and thermal signatures for stealth, reduced maintenance due to fewer moving parts, distributed propulsion architectures, and the ability to operate from short or improvised runways, making them ideally suited for agile, dispersed deployment.

In the United States, these benefits are already being actively leveraged. Programs such as AFWERX and Agility Prime have built strong partnerships with innovative aerospace startups to fund, test, and integrate sustainable aviation technologies into defence operations. This has enabled rapid development cycles and catalysed private investment, helping to de-risk the capital-intensive and complex process of developing and certifying clean-sheet aircraft.

In contrast, Europe's defence innovation framework remains fragmented and overly cautious, lacking the urgency and adaptability needed to support these transformative technologies. Defence funds are not being meaningfully directed toward these emerging OEMs, despite the clear strategic value. This is a missed opportunity. Directing even a portion of military R&D and procurement budgets toward advanced propulsion aircraft would not only accelerate innovation but also provide a strong demand signal. This would reduce perceived commercial risk and reinforce investor confidence in long-horizon, capital-intensive clean aviation projects ultimately strengthening both economic resilience and defence readiness in Europe.

Ensuring Sustainable Funding for EASA to Support Innovation

As highlighted in GAMA's 2024 White Paper, EASA plays an absolutely vital role in maintaining European competitiveness and innovation potential in aerospace manufacturing. Without a well-resourced EASA, the Union will struggle to bring new electric and hybrid aircraft to market.

Nevertheless, EASA's financial stability is increasingly strained due to several factors. On the one hand, the EU subsidy remains limited to approximately €45 million annually[3], which is significantly less than what the Agency is understood to need for the coming years to support its rulemaking tasks, which are essential to support the certification of new technologies.

At the same time revenue from fees and charges paid by industry (accounting for approximately 65% of EASA's revenues) has been insufficient to cover the Agency's costs over recent years. The Agency's staffing levels are further constrained by the limits set annually in its Establishment Plan. As a result, EASA's Management Board has sought to revise EASA's fees and charges structure for the certification activities for electric-hybrid propulsion system (EHPS) and eVTOLs to charge certification applicants by the hour instead of based on the current flat fee structure.
This is especially concerning for General Aviation OEMs, as any move towards an hourly billing model would risk placing an undue burden on the shoulders of the startups and SMEs who are driving technological breakthroughs but may not have the resources to sustain unpredictable and potentially escalating costs.

A flat fee structure offers a more predictable, transparent, and equitable approach that shares the responsibility across the sector, rather than discouraging the very innovators Europe needs to lead in sustainable aviation.
While recognising EASA's challenge to maintain a balanced budget, shifting this burden entirely onto individual applicants fails to address the structural funding gap and could slow the pace of certification and, ultimately, the deployment of transformative technologies.

3. European Union Aviation Safety Agency – 2024 Final Annual Accounts https://www.europarl.europa.eu/cmsdata/296773/EASA%202024%20Final%20Annual%20Accounts_with%20MB%20approval.pdf?utm (accessed 2025 June).

Consequently, and in addition to the existing recommendations set out in GAMA's 2024 paper, we call on European policymakers to:

1. Strengthen Public Service Obligations (PSOs) to Support Sustainable Aviation through the Integration of Environmental Criteria: Through the upcoming modernisation of the Air Services Regulation, the European Commission and Member States should build on the existing PSO framework to progressively integrate environmental criteria into PSO tenders—particularly on short and thin routes where low- and zero-emission aircraft can deliver the greatest benefit.

These criteria should recognise an aircraft's verified CO_2-reduction potential, whether achieved through the use of sustainable aviation fuels (SAF, including e-SAF) or through the adoption of efficient technologies such as hybrid- or battery-electric propulsion, while safeguarding PSOs' essential connectivity role and the integrity of existing routes.

To facilitate the uptake of cleaner technologies within PSO operations, Member States could consider allocating a share of national EU-ETS revenues, complemented by other regional and EU funding instruments such as the Connecting Europe Facility (CEF), to support aircraft and infrastructure modernisation.

2. Direct Cohesion Policy Funds Toward Sustainable Aviation Manufacturing, Infrastructure, and Regional Connectivity Projects: Funding under the European Regional Development Fund (ERDF) and Just Transition Fund (JTF) should be made available to support these activities as many marginalised regions are home to underutilized airfields and lack sustainable transport options. Investing in clean regional aviation can catalyse industrial renewal, skills development, and intermodal accessibility especially in areas bypassed by rail or highway networks.

3. Ringfence a Proportion of European Defence Funds for Dual-Use Advanced Propulsion Aircraft Manufacturing: The EU should create a dedicated dual-use funding instrument to support the development of advanced propulsion aircraft technologies both for the civil and defence market. Current instrument such European defence fund and Horizon Europe programme should better take into account this dual dimension when designing the programmes. The EU should also better serve defence innovation streams either within the European Defence Fund and revise EIB and Horizon Europe criteria to explicitly support dual-use technologies. Strategic integration of defence and civilian funding streams would bolster resilience, accelerate innovation, and maintain Europe's competitiveness in the face of growing global tensions.

4. Increase Funding and Maintain Predictable Fee Structure for EASA: Maintain a predictable flat fee structure for electric-hybrid propulsion system (EHPS) and eVTOL certification activities, instead of shifting to an hourly billing model. This will protect startups and SMEs from unpredictable cost burdens, provide investment certainty for innovative projects, and help secure Europe's leadership in sustainable aviation. Additionally, the European Commission subsidy should be increased, and a more flexible approach to staffing level limits should be put in place, to support rulemaking and innovation activities.

Europe has the talent, the track record, and the technological foundation to lead the world in clean aviation.

Let's seize this moment together.

Conclusions

Europe is on the cusp of an aviation revolution. Across the continent, pioneering manufacturers, innovative startups, and visionary infrastructure providers are advancing a new generation of sustainable aircraft technologies. Some are working to produce the most efficient hybrid-electric propulsion systems, others are working on making battery-electric flight an increasing reality, while others are looking to make hydrogen-powered flight a reality.

This innovation wave is not only good for the planet, but also a major opportunity for Europe to lead in an emerging global industry, boosting competitiveness, sovereignty, and growth across regions. The European Commission has rightly acknowledged the urgency of industrial renewal, including through the CID and its recent competitiveness communications. These frameworks reflect a growing recognition that sustainable aviation – all forms of it – must be a pillar of Europe's future industrial policy. Yet to fully harness this momentum, policymakers must act with speed and ambitionand with openness to the full spectrum of technological solutions.

Now is the time to embrace a technologically agnostic approach to decarbonising aviation. There is no one-size-fits-all solution. Battery-electric aircraft may revolutionise short-haul travel, cargo deliveries and training; hybrid propulsion can enable meaningful emissions cuts on regional routes and hydrogen-powered systems hold promise for longer ranges. Each of these pathways has a role to play. What Europe needs is a coherent, strategic framework that accelerates all credible routes to decarbonisation grounded in performance, not ideology.

This means reforming funding instruments, adapting state aid rules, improving access to capital, and ensuring fair certification pathways for all aircraft types. It means empowering agencies like EASA with the resources they need to keep pace with innovation. And crucially, it means turning policy into action: bundling infrastructure and aircraft funding and rewarding technologies that deliver verified emissions reductions.

The good news? Much of the groundwork is already in place. From AZEA to the CID's investment and regulatory agenda, the ecosystem is primed. What's needed now is bold implementation guided by urgency, flexibility, and a shared vision of leadership.

APPENDIX

The below table provides a glimpse into the technological readiness of the industry as of writing – showcasing just how diverse Europe's innovation landscape is at present.

Please Note: The information provided in the following table was provided by individual companies, GAMA only collected the information to add to this appendix.

COMPANY	HQ In	PRODUCT	KEY MILESTONE(S)
Ascendance		**Sterna**	• Proprietary hybrid-electric propulsion system (up to 50% CO2 reductions) • Full-scale test bench, successful demonstrator flight in 2024 with DGAC • Collaboration with Daher to produce hybrid electric TBM Aircraft • Commercialization foreseen in 2027
		Atea	• Hybrid-electric eVTOL powered by Sterna • Range of 400kms & 4+1 configuration • First piloted prototype flight in early 2026 • Certification and commercialisation in 2029
Aura Aero		**Integral E**	• Fully electric two-seater trainer aircraft (with acrobatic capabilities) currently undergoing EASA CS23 type-certification • Expected useful autonomy of 1:30 minutes
		ERA	• 19 seat hybrid-electric aircraft • Winner of an Innovation Fund Grant • EASA pre-application contract signed
Daher		**Ecopulse Demonstrator**	• Working to develop a 'more electric' aircraft by 2027 based on the findings from the 'Ecopulse' demonstrator with an objective to work towards low carbon aviation

Safran		**ENGINeUS 100**	• First EASA certified electric eVTOL, trainer and regional shuttles engine • EASA CS-23 certification compliant with the requirements of the Special condition E-19 for electric and hybrid propulsion system
		EPOWER	• Hybrid-electric propulsion system run in 2013 • Full-scale test bench in Pau, successful ground demonstrator in 2013 • Complete portfolio from electrical motor to HV distribution, protection, harnesses and HV battery storage for flight demonstration in 2027
ERC - Systems		**Charlie EMS eVTOL**	• 100% battery electric with optional hybrid electric mode • 200 km electric & 800 km hybrid range • 2 full-scale demonstrators built and tested (>2.5 tons MTOM, 100+ test days) • First flight scheduled for 2028 • Entry into service by 2030, starting with EMS services • Partnerships signed with leading European HEMS operators
Vaeridion		**Microliner**	• Fully Electric eVTOL 9-seat aircraft with with targeted entry into service before 2030 • First General Aviation manufacturer to complete a Pre-Application Contract with EASA • 400 km range + IFR reserves • Patented multi-engine, single propeller propulsion system • First flight planned for 2027 • Winner of the European Startup Prize for Mobility in the Scaleup & Rural Mobility Category
Volocopter		**VoloCity — piloted eVTOL**	• 100% battery electric – powered by 18 motors. • 2000+ test flights • Flight demos in Europe, Middle East and Asia • 75% of EASA Audits completed
Pipistrel Aircraft		**Velis Electro Nuuva v300 cargo VTOL**	Velis Electro: • First EASA certified fully electric aircraft (2020) • UK CAA certification (2022) Nuuva v300: • Hybrid-electric, autonomous cargo drone • 600-pound payload with a range of 300 nautical miles • Undergoing flight testing

H55		**Certified Electric Propulsion System**	• Certified Electric Propulsion System, 104KW MTOP • Final certification expected in 2026
		Energy Storage System Adagio Vivace Fortissimo	• Modular certified Energy Storage System, adapted for battery cells upgrade Customers include: • CAE, Electric STC of the Piper Archer • Pratt and Whitney Canada, DeHavilland Dash-8 Hybrid Electric Demonstrator • Harbour Air for the electrification of the Beaver
		B23 Energic	• In partnership with Czech aircraft manufacturer, Bristell - First full electric 2-seater to be certified under EASA in CS-23, estimated 2026
Skyports Infrastructure		**Vertiports**	• Built Europe's first full-scale test vertiport for eVTOL in France. Current projects in Italy, Japan, UAE, UK and US
Vertical Aerospace		**VX4**	• UK based manufacturer of battery-electric and hybrid-electric VTOL aircraft (4+ passengers) for dual-use applications • Electric variant under current flight testing and concurrent certification underway with UK CAA and EASA • Developing battery, powertrain and structures with many partners across the European supply chain
ZeroAvia		**ZA600 // ZA2000 hydrogen-electric powertrains**	• Anglo-American manufacturer of hydrogen-electric engines and key components (fuel cell systems, power electronics and electric motors) • ZA600 powertrain for retrofit 10-20 seat aircraft certification subject to certification by UK CAA and US FAA • Developing ZA2000 for large regional turboprops (e.g. ATR) with target certification of 2028