

TOPIC	ACTION	COMMITMENT	Organisation name	Organisation Type	Country
<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	- MTU Aero Engines AG is a strong contributor of the EDF and Clean Aviation as well as national funding schemes, such as German LuFo. We are member of industry associations, mainly BDLI and BDSV.	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>
<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	- Occitanie / Pyrénées-Méditerranée Region organises 4 CTPAs (Comités Techniques des Partenaires du Plan ADER) per year to discuss issues related to the establishment of WGs and the presentation of the results to the CSFR (Comités Stratégiques de Filière Régionale - 2 per year) in which the French Aerospace Industries Association ( GIFAS) representative in the region also takes part	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	- ONERA has a partnership with the European Union Aviation Safety Agency (EASA) to exchange on future aviation technologies in order to facilitate the anticipation of the regulation for new technologies. ONERA is part of the IFAR (International Forum for Aviation Research), the biggest worldwide community dedicated to aviation research, which is having a partnership with International Civil Aviation Organisation (ICAO). - For the last two years, the ICAO-IFAR partnership activities were focusing on UAM (Urban Air Mobility) technologies, prefiguring the entrance of air taxi or other CS-23 airplane into the low altitude aviation market. On the other hand, ONERA has developed, thanks to both national and EU (European Regional Development Fund- FEDER) funding new	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>

		facilities, such as a new icing wind tunnel, the PiCOFIRE testbed. These facilities are to embrace the need for new measurement in order to comply with new regulations.			
<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	<ul style="list-style-type: none"> <li>- Space Y is committed to enabling dialogue among the European space downstream industry and European institutions and agencies in the space sector, to identify regulatory burdens and promote measures to overcome them. The Space Y association engaged its members in a working group aimed at defining the challenges hindering the competitiveness and resilience of the EU downstream space sector. The working group met several times between April and October 2024 and published in January 2025 the results of the works in a position paper "Satellite-based services for a competitive, autonomous, safe and resilient Europe" (<a href="https://www.spacey.eu.com/wp-content/uploads/2025/01/Space-Y-Position-paper-2025-web.pdf">https://www.spacey.eu.com/wp-content/uploads/2025/01/Space-Y-Position-paper-2025-web.pdf</a>).</li> <li>- The position paper has been discussed with representatives from the European Union Agency for the Space Programme (EUSPA) and DG DEFIS and is being disseminated by Space Y to policy makers within the European institutions, with the aim of engaging them in discussions, during 2025 and until 2027, on ways to foster the competitiveness, autonomy and resilience of the European space downstream sector.</li> </ul>	<a href="#">Space Y</a>	Business Association/ Company	<b>France</b>
<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	<ul style="list-style-type: none"> <li>- The Exploration Company commits to establish partnerships with industry and academia to develop a standardised Life Cycle Assessment (LCA) methodology for space, including eco-design and end-of-life considerations, by 2026.</li> </ul>	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>

<b>Regulation and Public Governance</b>	<b>Action 1:</b> Continue dialogue and exchanges with stakeholders in order to identify and reduce regulatory burdens and make legislation and regulation simpler and easier to understand by the ecosystem's players.	- Maia Space engages to contribute to the definition of standards as much as possible, notably regarding environmental issues (on Earth and in space). Also, commitment to contribution to define global European flight safety rules that are appropriate for new launcher.	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Regulation and Public Governance</b>	<b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement of research institutes and academia in collaborative platforms together with industries.	- MTU Aero Engines AG established a strong network with different scientific organizations, such as research institutes and universities, with which collaboration is on going in various technology programs. MTU Aero Engines AG Actively seeks new insights and innovative approaches in all the collaborations to develop cutting-edge technologies for our products. Particularly, cooperation is successful in emerging areas such as automated inspection/data collection, data analysis, and disruptive propulsion concepts (details can be found at : <a href="#">MTUplus Intelligent Solutions - MTU Aero Engines</a> ; <a href="#">Flying fuel cell - MTU Aero Engines</a> )	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>
<b>Regulation and Public Governance</b>	<b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement	- Occitanie / Pyrénées-Méditerranée Region organises "Dev Eco" Tours within each local council (département). It also promotes start-ups at regional trade fairs with a national and international scope (at least 5 per year): stand, pitches, visits of foreign delegations, etc	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

	of research institutes and academia in collaborative platforms together with industries.				
<b>Regulation and Public Governance</b>	<b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement of research institutes and academia in collaborative platforms together with industries.	- In the field of Space Situational Awareness (SSA) ONERA has launched ASTAREON, its first subsidiary, to promote its know-how in space surveillance. Created on May 30, 2023, ASTAREON (now a company of HEMERIA, namely HEMERIA Surveillance) is a new player in New Space. It is providing space surveillance services from 2024 to meet the growing challenges of security and safety in space.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Regulation and Public Governance</b>	<b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement of research institutes and academia in collaborative platforms together with industries.	- The Space Y Association includes key players in the European downstream space industry, ranging from SMEs to large companies. By engaging such companies in a common dialogue on ways to act together to foster the European industry, Space Y aims at supporting SMEs in having their voice heard towards European stakeholders and decision-makers. Through meetings with European institutions and stakeholders, such as the European Commission (EC), the EU Agency for Space Programme (EUSPA) and European Space Agency (ESA), Space Y enables the SMEs in its network to get acquainted with available funding and support opportunities and with relevant policies and trends. Space Y also engages the SMEs in its network in discussion with European institutions aimed at providing feedback useful to better support the growth and sustainability of the European downstream industry.	<a href="#">Space Y</a>	Business Association/ Company	<b>France</b>

<p><b>Regulation and Public Governance</b></p>	<p><b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement of research institutes and academia in collaborative platforms together with industries.</p>	<ul style="list-style-type: none"> <li>- New Space Catalonia expresses commitment to continue to support the companies within our ecosystem. New Space Catalonia actively participates in associations such as NEREUS (Network of European Regions Using Space Technologies), Eurisy, SME4Space, EARSC (European Association of Remote Sensing Companies), and PAE (Platforma Tecnològica Aeroespacial Espanya), with the aim of fostering collaboration, engaging in international projects, and representing the broader NewSpace ecosystem. In addition, New Space Catalonia supports the Digital Catalonia Alliance, an initiative that brings together all stakeholders in the NewSpace sector, offering members access to valuable networking and visibility opportunities.</li> <li>- New Space Catalonia regularly publishes calls for tenders aimed at local entities to develop satellite imagery-based use cases. These initiatives take a dual approach—targeting both industry and public administration—with the goal of generating tangible societal impact. New Space Catalonia also contributes to climate resilience by funding relevant projects through the PhiLab NET initiative from the European Space Agency (ESA).</li> <li>- Furthermore, New Space Catalonia supports projects such as Interreg-SUDOE and PCP-Wise, which provide direct benefits to participating companies. In parallel, it gathers and shares funding opportunities at regional, national, and international levels across our ecosystem. This is complemented by ongoing support services, including monthly tailored sessions and upcoming legal assistance to help stakeholders maximize their potential.</li> </ul>	<p><a href="#">Institute of Space Studies of Catalonia</a></p>	<p>Academic/ research institution</p>	<p><b>Spain</b></p>
	<p><b>Action 2:</b> Support SMEs and smaller firms to participate in collaborative platforms and to</p>	<ul style="list-style-type: none"> <li>- Spire Global intends to be involved in future programmes and projects at the EU level to provide expertise on cutting edge technology and be funded to implement future EU initiative</li> </ul>	<p><a href="#">Spire Global Germany GmbH</a></p>	<p>Business Association/</p>	<p><b>Germany</b></p>

<b>Regulation and Public Governance</b>	fully benefit from all the opportunities linked to the ecosystem transformation, including in terms of access to funding at EU, national, regional and local levels. Encourage active involvement of research institutes and academia in collaborative platforms together with industries.	<p>which necessitate satellite component. Furthermore, thanks to our EU entities, Spire plans to be involved in the debate of the EU Space Act and to provide input to facilitate commercial smallsat operators to provide added value for the EU citizens, industry and environments. Spire Global unique hosted payload programme can help EU to move faster and test innovative solutions without building and operating satellites. Through commercial agreement Spire Global can install and operate EU payload on board of our LEMUR constellation.</p> <ul style="list-style-type: none"> <li>- Spire Global intends to participate in Horizon Europe activities to support R&amp;D efforts.</li> </ul>		Company	
<b>Regulation and Public Governance</b>	<b>Action 3:</b> Facilitate sharing best practices and sustainability reporting guidance with smaller suppliers to ensure compliance with relevant national and EU regulations, encouraging environmentally sound practices across the supply chain.	<ul style="list-style-type: none"> <li>- Maia Space is ready to take part to "users' groups" and to contribute to define standardized approaches related to environmental issues analysis along the value chain.</li> </ul>	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Regulation and Public Governance</b>	<b>Action 3:</b> Facilitate sharing best practices and sustainability reporting guidance with smaller suppliers to ensure compliance with relevant national and EU regulations, encouraging environmentally sound practices across the supply chain.	<ul style="list-style-type: none"> <li>- Annual funding of competitiveness clusters and clusters for actions aimed at their members: monitoring and deciphering national and European regulations to enable development and innovation within SMEs (annual budget of over 4Mil € )</li> <li>- OCCIMORE programme to support companies in the region to set up an eco-design approach: collective action and presentation of the various European regulations (<a href="https://programme-occimore.fr/">https://programme-occimore.fr/</a>)</li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

<b>Regulation and Public Governance</b>	<b>Action 3:</b> Facilitate sharing best practices and sustainability reporting guidance with smaller suppliers to ensure compliance with relevant national and EU regulations, encouraging environmentally sound practices across the supply chain.	<ul style="list-style-type: none"> <li>- The Exploration Company commits to share data for the development of eco-friendly capsules through at least one publication per year until 2027 on our conducted LCAs, promoting shared standards and best practices.</li> </ul>	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>
<b>Resilience</b>	<b>Action 4:</b> Establish redundancies in production capacity and stockpiles, especially in critical systems such as satellite components, advanced avionics, propulsion technologies, and secure.	<ul style="list-style-type: none"> <li>- Commitment to supporting the establishment of production redundancies and strategic stockpiles for critical systems, particularly in secure communication technologies.</li> <li>- LEOBLUE proposes to develop scalable and geographically redundant production facilities, ensuring continuity during crises. Additionally, we will collaborate with European authorities to build strategic reserves of critical components. To sustain these efforts, we will foster market demand through diversified applications and ongoing innovation. Production to begin by 2026.</li> <li>- LEOBLUE is ready to partner with stakeholders across the ASD sector.</li> </ul>	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>
<b>Resilience</b>	<b>Action 4:</b> Establish redundancies in production capacity and stockpiles, especially in critical systems such as satellite components, advanced avionics, propulsion technologies, and secure.	<ul style="list-style-type: none"> <li>- As a propulsion technology and propulsion system provider we play an active role in that area. With regard to military engines, MTU's technical expertise and the Bundeswehr's operational experience ensure full engine availability with cost-effective activities. We would be able to significantly enhance production capacity and stockpiles, if continuous military purchasing would be strengthened. With regard to future defence programs, such as the Future Combat Air System - FCAS and the Next Generation Helicopter: They represent Europe's big chance to reinforce its defence</li> </ul>	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>

		autonomy and to establish and expand its own supply chain for high-tech products.			
<b>Resilience</b>	<b>Action 4:</b> Establish redundancies in production capacity and stockpiles, especially in critical systems such as satellite components, advanced avionics, propulsion technologies, and secure.	<ul style="list-style-type: none"> <li>- Occitanie / Pyrénées-Méditerranée Region engages to facilitate the implementation of critical production capacity. Examples: Financing of innovation projects on the recycling of titanium scraps or the production of components for power electronics.</li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Resilience</b>	<b>Action 4:</b> Establish redundancies in production capacity and stockpiles, especially in critical systems such as satellite components, advanced avionics, propulsion technologies, and secure.	<ul style="list-style-type: none"> <li>- Redundancy with alternative technologies is an appropriate solution.</li> <li>- ESA-supported projects are a good vehicle to explore and validate alternative solutions that will provide additional resilience to Europe.</li> <li>- For example, the EURIALO project, which will offer a fully reliable and resilient surveillance solution to continuously monitor air traffic, making air travel safer, more efficient and more sustainable.</li> <li>- Redundancy can also be driven by the capability of replacing capacity and resource. NewSpace is a game changer to quickly gain access to space resources. - The capacity to quickly manufacture and launch when some launchers are out of service, will significantly contribute the resilience objective</li> </ul>	<a href="#">Spire Global Germany GmbH</a>	Business Association/ Company	<b>Germany</b>
<b>Resilience</b>	<b>Action 5:</b> Recognise the vulnerability of current sourcing practices, actively diversify the critical raw materials (CRMs) sources and promote stockpiling to reduce dependence on a single supplier and mitigate risks associated with supply chain and geopolitical dynamics. Continue to streamline the	<ul style="list-style-type: none"> <li>- The Exploration Company commits to monitor our critical raw materials sourcing and diversify suppliers to reduce dependency on any single source by 2026.</li> </ul>	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>

	ecosystem in the implementation of the European economic security strategy.				
<b>Resilience</b>	<p><b>Action 6:</b> Perform audits of the supply chains, including: (a) mapping of where the strategic raw materials used are extracted, processed or recycled; (b) stress test of the supply chain of strategic raw materials, consisting of an assessment of its vulnerability to supply disruptions by estimating the impact of different scenarios that may cause such disruptions and their potential effects. Participate in strengthening supply chains and early warning mechanisms for supply chain disruptions. Use tools like the EU Observatory of Critical Technologies (OCT) to inform and coordinate future actions.</p>	<ul style="list-style-type: none"> <li>- MTU Aero Engines Ag carries out an annual risk analysis for direct suppliers of the fully consolidated Group companies using a standardized tool, taking into account the probability of occurrence and extent of damage. The analysis is based on defined environmental, social, and governance (ESG) criteria such as product groups and the countries they are sourced from. We have integrated our risk analysis into our existing risk process for suppliers, and we also include key suppliers in an assessment of compliance with sustainability aspects. This is done by means of a scorecard within the ESG assessment tool. Our risk management approach includes preventive and, if necessary, corrective measures. MTU Maintenance also conducts a structured supplier evaluation twice a year for suppliers of the German sites.</li> </ul> <p>For the findings of the risk assessment of suppliers with regard to child, forced, or compulsory labour or with regard to the freedom of association or the right to collective bargaining, please see <a href="#">MTU's 2023 report to the German Federal Office for Economic Affairs and Export Control</a> (German version only).</p>	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>
<b>Resilience</b>	<p><b>Action 6:</b> Perform audits of the supply chains, including: (a) mapping of where the strategic raw materials used are extracted, processed or recycled; (b) stress test of the supply chain of strategic raw materials, consisting of an assessment of its vulnerability</p>	<ul style="list-style-type: none"> <li>- Once Observatory of Critical Technologies (OCT) tools are available to provide detailed information in aerospace sector, ONERA will use these for consideration in the update of R&amp;D roadmaps and development &amp; MCO of testing facilities.</li> </ul>	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>

	to supply disruptions by estimating the impact of different scenarios that may cause such disruptions and their potential effects. Participate in strengthening supply chains and early warning mechanisms for supply chain disruptions. Use tools like the EU Observatory of Critical Technologies (OCT) to inform and coordinate future actions.				
<b>Resilience</b>	<b>Action 10:</b> Exercise caution and careful consideration when investing in initiatives abroad, particularly those involving dual-use technologies, to avoid losing control over projects or technologies.	- Occitanie / Pyrénées-Méditerranée Region engages to regularly monitor the locations of foreign companies requiring critical resources and alert management and President if necessary.	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Resilience</b>	<b>Action 10:</b> Exercise caution and careful consideration when investing in initiatives abroad, particularly those involving dual-use technologies, to avoid losing control over projects or technologies.	- As a Research Technical Organization, we are not investing abroad, however we have several international interactions with non-EU partners. While dual-use technologies combined with low TRL research are key to facilitate international cooperations, we are more and more careful, considering all the potential use and end user of the technologies embedded in the cooperation. ONERA applied strictly the national export control procedure. We have also made recommendations in this regard through white papers circulated by the Association of European Research Establishments in Aeronautics ( EREA) and EREA organisations to which we are actively contributing.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>

<b>Resilience</b>	<b>Action 11:</b> Support the shaping of the EU approach on launching capabilities by actively following and participating in proposed next steps	<ul style="list-style-type: none"> <li>- LEOBLUE actively participate in shaping the EU's launch capabilities by contributing with our expertise in satellite communication directly to the policy-making process.</li> <li>- LEOBLUE will engage in collaborative R&amp;D initiatives aimed at improving the integration of our technology into future European satellite launches, ensuring our systems are fully compatible with EU-developed platform. Example of such initiative: develop beacon in launchers or elements of launcher to localize them through an independent system.</li> </ul>	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>
<b>Resilience</b>	<b>Action 11:</b> Support the shaping of the EU approach on launching capabilities by actively following and participating in proposed next steps	<ul style="list-style-type: none"> <li>- Through the Association of European Space Research Establishments (ESRE), ONERA is a founding member of the Globally Competitive Space Systems (GCSS) co-programmed partnership. In this framework, we actively contribute to the EC R&amp;I work programme intending to contribute in particular to the EU launching capabilities with a specific effort on digitalisation and on sustainability for the next generation of launchers.</li> </ul>	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Resilience</b>	<b>Action 11:</b> Support the shaping of the EU approach on launching capabilities by actively following and participating in proposed next steps	<ul style="list-style-type: none"> <li>- EU-BEST Project: The Lleida-Alguaire Airport has been selected as the site for the new European Bench for Engine and Stage Testing (Eu-BEST). This project, awarded EUR 4.9 Mil in funding from the European Union through Horizon Europe, will be developed by a European consortium led by EES – Clemessy (France), alongside key Catalan entities: the Institute of Space Studies of Catalonia (IEEC), Pangea Aerospace, and Aeroports de Catalunya. Other partners include SpaceDreams, OHB Digital Connect GmbH, and SUAS Aerospace Limited.</li> <li>- EU-BEST is the only project selected under the Horizon Europe call for proposals titled "<i>Modern, flexible and efficient European test production and launch facilities.</i>" Project Objective: To build a modular, mobile, and interoperable rocket engine test facility with cryogenic capabilities. The</li> </ul>	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>

		<p>facility will support testing of various rocket engines throughout different stages of their lifecycle—qualification, production, or reuse—handling thrust capacities up to 500 kN. It will also enable testing with more sustainable liquid propellants.</p> <ul style="list-style-type: none"> <li>- Impact: This innovative infrastructure will fill a critical gap in Europe’s propulsion testing capabilities, offering unprecedented flexibility and accessibility. It represents a major step toward making space access more affordable and sustainable, positioning Catalonia as a key European hub for propulsion system development in the NewSpace sector.</li> <li>- The Bench is expected to become operational by the end of 2026.</li> <li>-</li> </ul>			
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and ensuring a safer environment for space activities.	<ul style="list-style-type: none"> <li>- HPS has developed and is selling dragsail modules called "ADEO", which deorbit satellites within 5 years from LEO. 5 different sizes are already now available and are being sold already for spacecraft from 1 kg up to 1.500 kg. ADEO is a very efficient and "green" technology to reduce the amount of new space debris by default: mounting an ADEO already on the spacecraft BEFORE launch. The deorbit is performed naturally and not by propulsion (propulsion also in addition pollutes the orbit). A second technology, but still under development is a module, based on deployable surfaces, which statistically can detect small space debris, lower than 10mm. It will be ready 2026 for a first mission.</li> </ul>	<a href="#">HPS GmbH (High Performance Space Structure System GmbH)</a>	Business Association/ Company	<b>Germany</b>
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and ensuring a safer environment	<ul style="list-style-type: none"> <li>- LEOBLUE will adopt and support emerging solutions for space situational awareness (SSA) and space traffic management (STM). In particular, we intend to develop a low-cost solution allowing the positioning and the identification of satellites like AIS for boat based on the LEOBLUE technologies. Intention to develop this system in 2025 for a test in 2026.</li> </ul>	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>

	for space activities.				
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and ensuring a safer environment for space activities.	<ul style="list-style-type: none"> <li>- Implementation of a Space roadmap to support a solid, competitive and diversified industrial base, committed to a sustainable and responsible space approach (<a href="https://www.laregion.fr/L-Occitanie-affirme-sesambitions-spatiales">https://www.laregion.fr/L-Occitanie-affirme-sesambitions-spatiales</a>);</li> <li>- Funding for the Aerospace Valley cluster to support the development of innovation for the space sector.</li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and ensuring a safer environment for space activities.	<ul style="list-style-type: none"> <li>- ONERA has been involved for decades in Space Situational Awareness (SSA) to ensure a safer environment for space activities, especially on the ground segment by designing innovating surveillance solution with GRAVES system (<a href="https://www.onera.fr/en/news/graves-the-1st-european-space-surveillance-system">https://www.onera.fr/en/news/graves-the-1st-european-space-surveillance-system</a>) still the first European space surveillance system. Derived systems developed in subsidiary (Astareaon, Hemeria Surveillance) are based on the experience developed by ONERA.</li> <li>- ONERA is also member of ESRE the Association of European Space Research Establishments where STM is considered as of utmost importance. In this framework we issued a white paper dedicated to the forthcoming space law (October 2023) with emphasis on sustainability and safety (debris mitigation).</li> </ul>	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and	<ul style="list-style-type: none"> <li>- ANSER actively works on innovation and has developed a space satellite de-orbiting system for the nanosatellites produced within the consortium: we are working with research centers and university of Bologna daily on this topic.</li> </ul>	<a href="#">Consortium ANSER AeroNautic and Space Emilia Romagna</a>	Business association/ regional level	<b>Italy</b>

	ensuring a safer environment for space activities.				
<b>Resilience</b>	<b>Action 12:</b> Adopt and support emerging solutions for space situational awareness (SSA) or space traffic /debris management (STM/SDM) to contribute to minimising space debris and ensuring a safer environment for space activities.	<ul style="list-style-type: none"> <li>- Spire has the unique capability to quick implement hosted payload to test and deploy unique EU solution. In other words, Spire can build and operate satellites or constellation with hosted payload on board. Start up or EU programme can either provide project, design or payload and our unique Space as a Service products will be idea to space reality. We can offer, under commercial agreement, or specific funding, the possibility to put on board to our LEMUR constellation some EU funded payload and solutions.</li> <li>- For example, the EURIALO project, which is supported by ESA's ARTES programme, will develop a more advanced satellite-based aviation surveillance system to serve as an alternative to surveillance systems that rely on global navigation satellite systems (GNSS). This system will offer a fully reliable and resilient surveillance solution to continuously monitor air traffic, making air travel safer, more efficient and more sustainable.</li> </ul>	<a href="#">Spire Global Germany GmbH</a>	Business association/ company	<b>Germany</b>
<b>Resilience</b>	<b>Action 13:</b> Ensure the availability of critical assets (such as EO, GNSS and SSA) by promptly sharing data with appropriate authorities, facilitating effective management of situations that could undermine European security.	<ul style="list-style-type: none"> <li>- Though ONERA is not directly involved in ensuring the availability of EU critical assets, it advocates for encompassing Strategic Infrastructure for Applied Research - SIAR (Wind tunnels, other large facilities for testing aviation and space prototypes) within these critical assets. This SIAR are enduring lack of support and are playing a critical role for the sovereignty of the European industry.</li> </ul>	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Green transition</b>	<b>Action 14:</b> Actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce	<ul style="list-style-type: none"> <li>- Occitanie / Pyrénées-Méditerranée Region has been involved in financing of projects related to SAF: <ul style="list-style-type: none"> <li>o Launch of a call of manifestation of interest in 2021 to identify regional actors interested in the topic.</li> </ul> </li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

	climate impact of emissions (including non-CO2) and support the transition to greener air transport (for instance through implementation of the recommendations of the Alliance for Zero-Emission Aviation-AZEA).	<ul style="list-style-type: none"> <li>○ Joint declaration "DAC Initiative in Occitanie" in January 2023, between Airbus, ATR, Toulouse Blagnac Airport, Aerospace Valley and the Occitanie Region: doubling of the objectives for the incorporation of SAF from 2025</li> <li>○ IPCEI financing: electrolyzer production line (€10M in total for 1 company: equity investment and direct fundings)</li> </ul>			
<b>Green transition</b>	<b>Action 14:</b> Actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce climate impact of emissions (including non-CO2) and support the transition to greener air transport (for instance through implementation of the recommendations of the Alliance for Zero-Emission Aviation-AZEA).	<ul style="list-style-type: none"> <li>- Turin Airport is part of the TULIPS project (EU funded (GA No: 101036996), where it is proud of being the only regional airport involved, along with bigger and international ones (Schiphol, Larnaca and Oslo): even if Turin Airport is not actively involved in the work packages regarding SAF, the TULIPS project includes a study on Scaling up the SAF market in a specific WP5.</li> <li>- Sagat (Torino Airport) joined AZEA (Alliance for Zero-Emission Aviation) initiative in 2022.</li> <li>- The Airport is committed and has already invested towards the creation of an infrastructure that will prepare the entry into commercial service of hydrogen-powered and electric aircraft.</li> <li>- Together with Politecnico di Torino we have created an energetic "digital twin" of the airport in order to analyse the drivers that influence the energy demand and select the best solutions for the future scenarios: the plan is to become a Smart Energy Hub : the master planning of future airports will be designed from the modelling of the green energy and the technological solutions required to power infrastructure, transport systems, GSE and provide the energy required by aircraft.</li> </ul>	<a href="#">SAGAT S.p.A.</a> <a href="#">Torino Airport</a>	Business Association/ Company	<b>Italy</b>

		- In 2024 a small pilot plant has already been realised: a ground power unit that converts the energy produced by the photovoltaic system into green-hydrogen, to optimize the total energy consumption of the premises and that in the future could be for many different uses (i.e. to feed electric aircrafts). In fact, one of the main issues is the necessity that more and more airports will exist that have studied, designed and realized new infrastructures according to new aircraft engine technologies, to allow such aircrafts to have their turnaround easily.			
<b>Green transition</b>	<b>Action 14:</b> Actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce climate impact of emissions (including non-CO2) and support the transition to greener air transport (for instance through implementation of the recommendations of the Alliance for Zero-Emission Aviation-AZEA).	- MTU Aero Engines is member of AZEA, Clean Aviation and Clean Hydrogen. We actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce climate impact of emissions. MTU's technology agenda is called Clean Air Engine (Claire). In it, we lay out potential solutions and concepts for sustainable commercial engines to pave the way for emissions-free flight. All efforts are aimed at reducing climate impact—that is, CO2 and NOx emissions and contrail formation. At the same time, lowering energy consumption remains important as well. Key elements are evolutionary enhancements of the gas turbine engine based on the geared turbofan, and completely new, revolutionary propulsion concepts, such as the water-enhanced turbofan and the flying fuel cell. Sustainable aviation fuels (SAFs) and hydrogen play an important role.  -	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>
<b>Green transition</b>	<b>Action 14:</b> Actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce climate impact of emissions (including non-CO2) and support the transition to	- DG DEFIS will continue facilitating the work of the Alliance for Zero-Emission (AZEA). This voluntary industrial initiative is formed by members representing the whole aviation ecosystem who are committed to work together to accelerate the entry into service of electricity and hydrogen-powered aircraft.	<b>European Commission, DG DEFIS</b>	EU institution	<b>Belgium</b>

	greener air transport (for instance through implementation of the recommendations of the Alliance for Zero-Emission Aviation-AZEA).	<ul style="list-style-type: none"> <li>- DG DEFIS remains committed to continue supporting the ongoing work of the different AZEA Working Groups (WGs) by facilitating the publication and dissemination of the accepted deliverables and reports.</li> <li>- As a next milestone for AZEA and as a follow-up to the Vision report 'Flying on electricity and hydrogen in Europe' presented in June 2024, DG DEFIS is currently steering the development of a detailed Roadmap for the whole ecosystem. This Roadmap will provide dedicated timelines and actionable recommendations to be implemented by all relevant stakeholders in the coming years, including DG DEFIS and other European Commission services. The Roadmap is also expected to be regularly updated based on the market uptake of zero-emission aircraft and on policy and technology developments.</li> </ul>			
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social focus to identify opportunities for optimisation in the context of circular economy principles.	<ul style="list-style-type: none"> <li>- Implementation of a Transformation course in 2025</li> <li>- Obligation to carry out a diagnosis (Impact Score) before applying for regional funding <ul style="list-style-type: none"> <li>o 1500 companies in Occitanie have made a diagnosis.</li> </ul> </li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social focus to identify opportunities for optimisation in the context of	<ul style="list-style-type: none"> <li>- ONERA is involved in a number of activities covering from test measurement on new propellant to characterization/simulation of the impact of current and future technologies on climate change. More precisely, ONERA is adapting its combustion facility to burn hydrogen, designing new injector adapted to hydrogen, collaborating with the Climate Modelling Center - Institut Pierre-Simon Laplace (IPSL) to evaluate the global climate change for various configurations and generations of commercial aircraft.</li> </ul>	<a href="#">ONERA</a>	Academic/research institution	<b>France</b>

	circular economy principles.	Other technologies are also studied through EU projects coordinated by ONERA like IMOTHEP (for the hybrid propulsion à and AWATAR (for the design of a Very High Aspect Ratio Strut-Braced Wing) and PULSAR (Propelling European Leadership through Synergizing Aviation Research), the latter of which aims at providing dedicated recommendations for policy-makers.			
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social focus to identify opportunities for optimisation in the context of circular economy principles.	- The Exploration Company commits to perform LCA for all our products to determine their environmental impacts, analyse hot spots and derive possibilities for improvement by 2026.	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social focus to identify opportunities for optimisation in the context of circular economy principles.	- Study to support the formulation of environmental strategic and policy aspects for the future development of the EU space programme and EU Secure Connectivity.	<b>European Commission, DG DEFIS</b>	EU Institution	<b>Belgium</b>
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social	- University of Stuttgart Institute of Space Systems is committed to continue research on the environmental impact of space transportation systems. LCA of production, launch and re-entry are carried out for this purpose, in cooperation with the European space industry. Studies were carried out to identify production hotspots and propose	<a href="#">University of Stuttgart Institute of Space Systems</a>	Academic/ Research Institution	<b>Germany</b>

	focus to identify opportunities for optimisation in the context of circular economy principles.	<p>measures to reduce them. The effects of reuse on the environmental impact were also investigated. A tool was developed to record take-off and re-entry emissions, which estimates the emissions from engines and re-entry structures and assigns them to a height profile;</p> <ul style="list-style-type: none"> <li>- Following workshops bringing together experts from science, industry and agencies to develop recommendations for action to improve the understanding of environmental impacts and LCA methodology. They can be consulted at: <a href="https://doi.org/10.5281/zenodo.11104767">https://doi.org/10.5281/zenodo.11104767</a>, <a href="https://doi.org/10.5281/zenodo.14222106">https://doi.org/10.5281/zenodo.14222106</a>;</li> </ul>			
<b>Green transition</b>	<b>Action 15:</b> Conduct assessments of value chain sustainability, utilising tools like life cycle assessments (LCA) with an economic, environmental, and social focus to identify opportunities for optimisation in the context of circular economy principles.	<ul style="list-style-type: none"> <li>- Maia Space is committed to produce LCA of the Maia launcher product, from Production phase to end-of-life, including transport and launch phases. The indicators include environmental indicators and indicators for Critical Raw Material</li> </ul>	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Green transition</b>	<b>Action 16:</b> Recognise sustainability as one of priorities during product design and subsequent stages, recognising that a significant share of a product's environmental impact is determined during these pivotal stages.	<ul style="list-style-type: none"> <li>- Environmental criteria are taken into account in design trade-offs, and in the choice of the suppliers. This is pursued following an approach as follows: <ul style="list-style-type: none"> <li>o When there are several options for the design of an item or an operational choice (transport, etc.), an environmental comparative analysis is done using Life Cycle Assessment, based on an average year of operations. Our functional unit is the following: “To place a payload of one ton into orbit 500 km (SSO) over one year of operations under a reference market scenario”.</li> </ul> </li> </ul>	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>

		<ul style="list-style-type: none"> <li>Concerning the choice of suppliers, we ask them in the RFI &amp; RFQ to complete a questionnaire asking for their Best Practices concerning sustainability (i.e. their wastewater treatment, the toxicity of their materials and consumables, if they perform LCA within the company...). During the choosing of suppliers, the rank given to the answers of the questionnaire is considered in the selection process.</li> </ul>			
<b>Green transition</b>	<b>Action 16:</b> Recognise sustainability as one of priorities during product design and subsequent stages, recognising that a significant share of a product's environmental impact is determined during these pivotal stages.	<ul style="list-style-type: none"> <li>In October 2024, New Space Catalonia signed the Responsible Space Sector Statement by ESA, along with many other companies from our ecosystem in committing to a more sustainable space industry. We organized an event with ESA where the companies that joined could understand the implications and the importance of committing to a responsible space sector, convincing them to do so. You can learn more about the statement and its implications here: <a href="https://responsiblespacesector.com/statement">responsiblespacesector.com/statement</a>.</li> <li>As a result, we are now actively participating—alongside our ecosystem companies—in dedicated working groups focused on decarbonization and green technologies. These efforts include assessing the environmental impact of the space sector's supply chain and promoting the integration of circular economy principles</li> </ul>	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Green transition</b>	<b>Action 17:</b> Strategically consider recycling viability in design choices from the outset, ensuring materials can be successfully recovered for circular economy practices.	<ul style="list-style-type: none"> <li>Commitment to use reusability of the lower stage to reduce the impact indicator on mineral and resource depletion.</li> <li>Reusing the first stage of the MaiaSpace launcher is one of our early design choices. It was completed through a comparative analysis looking at 2 indicators: Climate Change and Resource Depletion, which is documented in <a href="#">a public academic paper</a>.</li> </ul>	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>

<b>Green transition</b>	<b>Action 17:</b> Strategically consider recycling viability in design choices from the outset, ensuring materials can be successfully recovered for circular economy practices.	- The Institute of Space Studies of Catalonia participating— alongside our ecosystem companies—in dedicated working groups focused on decarbonization and green technologies. These efforts include assessing the environmental impact of the space sector's supply chain and promoting the integration of circular economy principles	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Green transition</b>	<b>Action 17:</b> Strategically consider recycling viability in design choices from the outset, ensuring materials can be successfully recovered for circular economy practices.	- Funding of the Occimore programme focused on the circular economy/ eco-design to raise awareness and train companies in this practice - Programme co-financed by the Region, ADEME and Valdelia since 2019, supported by the eco-design cluster. Renewal of the 24/26 agreement finalized.	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Green transition</b>	<b>Action 17:</b> Strategically consider recycling viability in design choices from the outset, ensuring materials can be successfully recovered for circular economy practices.	- The Exploration Company commits to design our space capsule Nyx Earth to make refurbishment and multiple flights per capsule possible.	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>
<b>Green transition</b>	<b>Action 17:</b> Strategically consider recycling viability in design choices from the outset, ensuring materials can be successfully recovered for circular economy practices.	-ANSER is leader in recycling carbon fibers and has already tested in aerospace industry its technology.	<a href="#">ANSER Srl - Aeronautics and space in Emilia Romagna</a>	Business association/ regional level	<b>Italy</b>
<b>Green transition</b>	<b>Action 18:</b> Design product for reuse or retrofitting existing systems (such as refuelling of satellites or green retrofitting of aircraft) showcasing	- LEOBLUE uses a ground proven technology, Bluetooth, to allow satellites to send information to the users on the ground. This means that no additional terminals are needed on the ground, the existing smartphones or Bluetooth objects are able to be used to receive data. This means a	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>

	innovation possibilities, offering opportunities for stable revenue streams through models like x-as-a-service or through-life engineering services.	limitation of the digital impact, as terminals are representing 80% of the digital impact.			
<b>Green transition</b>	<b>Action 18:</b> Design product for reuse or retrofitting existing systems (such as refuelling of satellites or green retrofitting of aircraft) showcasing innovation possibilities, offering opportunities for stable revenue streams through models like x-as-a-service or through-life engineering services.	- Willingness to have that as matter of study since we agreed on the importance of reuse and repair: refurbishment is one of the main strategy in our group of companies.	<a href="#">ANSER Srl - Aeronautics and space in Emilia Romagna</a>	Business association/ regional level	<b>Italy</b>
<b>Green transition</b>	<b>Action 19:</b> Adopt a strategic, integrated circular approach to products' lifecycles across the ecosystem, incorporating principles of sharing, leasing, reusing, repairing, refurbishing, and recycling to optimise resource utilisation and reduce environmental impacts.	- We recently launched a dedicated section on our website called the NewSpace Lab: <a href="http://ieec.cat/en/newspace/newspace-lab">ieec.cat/en/newspace/newspace-lab</a> . This platform showcases the available space infrastructure across the Catalan region, promoting principles of sharing, leasing, and reuse among local entities without the need for them to build their own. In addition, we are in the process of installing a Thermal Vacuum Chamber (TVAC) to further support our companies—enabling them to conduct critical space environment tests while adhering to the same collaborative and sustainable principles.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Green transition</b>	<b>Action 19:</b> Adopt a strategic, integrated circular approach to products' lifecycles across the ecosystem, incorporating principles of sharing, leasing, reusing, repairing,	- LEOBLUE intends to develop satellites to smartphones communication in a sustainable way. Rather than developing mega constellation with new smartphones, we intend to use small modules that can be embedded in existing satellites, and we intend to use the existing smartphones (8 billion) as terminals.	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>

	refurbishing, and recycling to optimise resource utilisation and reduce environmental impacts.				
<b>Green transition</b>	<b>Action 19:</b> Adopt a strategic, integrated circular approach to products' lifecycles across the ecosystem, incorporating principles of sharing, leasing, reusing, repairing, refurbishing, and recycling to optimise resource utilisation and reduce environmental impacts.	<ul style="list-style-type: none"> <li>- MaiaSpace commits to push suppliers into using recycled material as much as possible, to have least possible waste, and to recycle materials as much as possible. Use sustainability criteria in suppliers' selection.</li> <li>- MaiaSpace has a sustainability clause in the Request for Quotation - RFQ and contracts, stating "The Parties are expected to adhere to practices that minimize waste generation, reduce transportation needs, and eliminate the use of toxic substances and hazardous treatments. Furthermore, the Parties shall actively work towards minimizing pollution of water and soil and be mindful of the use of Critical Raw Materials. [...] The Parties agree to engage in discussions to facilitate eco-design improvements aimed at reducing the product's environmental impact and to work to continuously improve their product environmental performance."</li> </ul>	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Green transition</b>	<b>Action 21:</b> Identify and reduce hotspots in energy and water consumption by improving efficiency and reducing waste.	<ul style="list-style-type: none"> <li>- MTU is continuously and intensely working on water protection management as well as geothermal energy and fulfil highest public standards.</li> <li>- At the Head Quarter and biggest MTU Aero Engines site in Munich, we are currently working on on-site thermal water usage Based on preliminary studies, we assume that we could cover about 80 percent of our heating requirements on-site with thermal water. More information at: <a href="#">Geothermal energy - MTU Aero Engines</a></li> </ul>	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>

<b>Green transition</b>	<b>Action 21:</b> Identify and reduce hotspots in energy and water consumption by improving efficiency and reducing waste.	- The Exploration Company commits to perform hot spot analysis after all our LCAs and identify options to lessen the environmental burdens caused by the product under analysis by 2026.	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>
<b>Green transition</b>	<b>Action 22:</b> Embrace renewable and low-carbon energy sources, as initiated by the REPowerEU programme, to contribute to achieving a greener and more resilient ecosystem. Explore possibilities to increase hydrogen production and utilisation.	- GTD has developed a cutting-edge solution based on the implementation of emerging technologies such as the Internet of Things, analytics, Big Data, and Artificial Intelligence, combined with systems that include Thermal Energy Storage (TES) technology. The aim of the solution is to provide a predictive method for the operability of thermal energy storage, ensuring predictive planning and automatic optimization of the cold and heat production processes. This system optimizes the efficiency of the storage system, and its predictive algorithms enhance the use of energy provided by renewable sources, playing a crucial role in reducing carbon emissions in industries. The GTD solution combined with the energy storage system encourage private companies and public bodies to install renewable energy systems such as photovoltaic or wind energy, thanks to energy usage optimization, which increases the return on investment of these infrastructures.	<a href="#">GTD Sistemas de Información S.A.U.</a>	Business Association/ Company	<b>Spain</b>
<b>Green transition</b>	<b>Action 22:</b> Embrace renewable and low-carbon energy sources, as initiated by the REPowerEU programme, to contribute to achieving a greener and more resilient ecosystem. Explore possibilities to increase hydrogen production and utilisation.	- Commitment to us of bio-methane as propellant instead of methane extracted from Liquefied Natural Gas. The timeframe of the implementation of this commitment will depend on the advancement of project of building a local production plant of biomethane in French Guiana (called Bifrost). This project is led by <i>the Centre National d'Etudes Spatiales</i> (CNES) and the <i>Agence de la transition écologique</i> - ADEME.	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>

<b>Green transition</b>	<b>Action 22:</b> Embrace renewable and low-carbon energy sources, as initiated by the REPowerEU programme, to contribute to achieving a greener and more resilient ecosystem. Explore possibilities to increase hydrogen production and utilisation.	- Occitanie / Pyrénées-Méditerranée Region offers financial support for innovation and environmental transformation projects: financing of green electricity and green hydrogen production projects: Lhyfe in Bessières, Hyport operation in Toulouse, transformation of the port of Sète-Frontignan and the H2 production plant in Port La Nouvelle, participation in the financing of the H2 Corridor (EUR 40 Mil).	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Green transition</b>	<b>Action 22:</b> Embrace renewable and low-carbon energy sources, as initiated by the REPowerEU programme, to contribute to achieving a greener and more resilient ecosystem. Explore possibilities to increase hydrogen production and utilisation.	- The AWATAR project ( <a href="#">Advanced Wing MATuration And integRation   AWATAR   Projekt   Fact Sheet   HORIZON   CORDIS   European Commission</a> ), coordinated by ONERA completes an Overall Aircraft Design sizing loop integrating all new technologies on an LH2 aircraft propelled by an USF (direct burn). France is in favour of developing green generation of energy as well as maintaining a high ratio of nuclear-produced energy.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Green transition</b>	<b>Action 22:</b> Embrace renewable and low-carbon energy sources, as initiated by the REPowerEU programme, to contribute to achieving a greener and more resilient ecosystem. Explore possibilities to increase hydrogen production and utilisation.	- Within the EU H2020 TULIPS Funded program framework ( <a href="#">Home - TULIPS</a> ), Torino airport play an active role in the clean energy transition to transform airports into smart energy hubs. SAGAT airside pilot plant is producing hydrogen that is used for energy storage.	<a href="#">SAGAT S.p.A. Torino Airport</a>	Business Association/ Company	<b>Italy</b>
<b>Green transition</b>	<b>Action 23:</b> Prioritise purchasing EU-produced, green-by-design components	- Commitment to prioritise EU suppliers to reduce transportation impact and inclusion of environmental criteria in suppliers' selection process. Up to now, Maia Space are	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>

	to support environmental compliance and advance the aerospace green transition.	contracted only with European suppliers for more than 95% of our procurement and intend to continue this trend.			
<b>Green transition</b>	<b>Action 24:</b> Embrace a paradigm shift by recognising sustainability not as an obstacle but as an opportunity. Cultivate a mindset of continuous improvement, encourage collaborative innovation, adopt green technologies, and set metrics for on-going environmental impact assessment.	- The Institute of Space Studies of Catalunya leads the Spanish consortium for PhiLab NET, an initiative aimed at funding projects that leverage space applications to enhance climate resilience. More details are available here: <a href="https://ieec.cat/en/spain-launches-esa-phi-labnet-in-barcelona-to-boost-space-innovation">ieec.cat/en/spain-launches-esa-phi-labnet-in-barcelona-to-boost-space-innovation</a> . In addition, we are fully aligned with the principles outlined in the Responsible Space Sector Statement, and we are actively engaged in related working groups and the development of new initiatives to support a more sustainable and responsible space ecosystem.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Green transition</b>	<b>Action 24:</b> Embrace a paradigm shift by recognising sustainability not as an obstacle but as an opportunity. Cultivate a mindset of continuous improvement, encourage collaborative innovation, adopt green technologies, and set metrics for on-going environmental impact assessment.	- MTU is member of AZEA Clean Aviation and Clean Hydrogen. We actively embrace sustainable aviation fuels (SAFs) and novel propulsion technologies to reduce climate impact of emissions. MTU's technology agenda is called Clean Air Engine (Claire). In it, we lay out potential solutions and concepts for sustainable commercial engines to pave the way for emissions-free flight. All efforts are aimed at reducing climate impact—that is, CO2 and NOx emissions and contrail formation. At the same time, lowering energy consumption remains important as well.	<a href="#">MTU Aero Engines AG</a>	Business Association/ Company	<b>Germany</b>
<b>Digital transition</b>	<b>Action 26:</b> Implement robust cybersecurity measures throughout the life cycle of aerospace products, from the manufacturing phase till end-of-life to mitigate the risks associated with cyber-physical threats. Strengthen	- Commitment to implement a secure communication link to avoid any risk of hacking or spying the data transmitted from satellites to ground. Target date- 2026 for the first application.	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>

	European autonomy in Electrical, Electronic and Electro-mechanical (EEE) components.				
<b>Digital transition</b>	<b>Action 29:</b> Invest in developing skills and capabilities in quantum computing, either in-house or through collaborations, to harness the potential of quantum computers for specific tasks within the sectors.	- ONERA is committed to the development of quantum technologies for aeronautics, space and defence applications within its QTech laboratory, inaugurated in February 2022, around four main axes: quantum computing, quantum communications, quantum optonics and cold-atom sensors.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Digital transition</b>	<b>Action 30:</b> Develop hardened communication systems and assess dependence on connectivity, conducting exercises with limited connectivity to identify and manage vulnerabilities in operations.	- LEOBLUE will design and deploy hardened communication systems that can function effectively even with limited connectivity. We will conduct regular operational exercises under constrained connectivity conditions to identify and address any vulnerabilities in our satellite communication network. To be implemented in 2025-2026.	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>
<b>Digital transition</b>	<b>Action 31:</b> Integrate IoT sensors for real-time monitoring and predictive maintenance. Leverage digital twins and model-based systems engineering to streamline prototyping, reduce development time, and elevate overall efficiency in line with GDPR and data protection standards.	- GTD has developed a cutting-edge solution based on the implementation of emerging technologies such as the Internet of Things, analytics, Big Data, and Artificial Intelligence, combined with systems that include Thermal Energy Storage (TES) technology. By integrating Industry 4.0 technologies, GTD can implement a smart grid capable of predicting, in real time, the behaviour of renewable energy production based on meteorological forecasts, allowing the use of external energy providers to complement local production. Our system also enables the prediction of carbon generation and savings, the mitigation and preparation for scenarios of energy consumption overflow, and 9 the	<a href="#">GTD Sistemas de Información S.A.U.</a>	Business Association/ Company	<b>Spain</b>

		management of the efficiency of cold/heat production. All of this is achieved within a system that complies with cybersecurity standards			
<b>Digital transition</b>	<b>Action 31:</b> Integrate IoT sensors for real-time monitoring and predictive maintenance. Leverage digital twins and model-based systems engineering to streamline prototyping, reduce development time, and elevate overall efficiency in line with GDPR and data protection standards.	- New Space Catalonia has launched an IoT- based- satellite to provide IoT services to Catalonia, and is willing to keep improving in this regard.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Digital transition</b>	<b>Action 32:</b> Explore and promote innovative applications based on space data, including Copernicus and Galileo, for various end user purposes, expanding the utility of space assets.	- Marand's proposal emphasizes the importance of implementing an Open Digital Architecture (ODA) based open API Business Support System (BSS) to prepare the European Space Agency (ESA) for the commercialization of space. This system is seen as a strategic enabler for supporting a dynamic space economy, fostering innovation, and improving operational efficiency. Before transitioning to this new system, Marand proposes to assess ESA's current pre-sales and sales BSS IT infrastructure. The assessment will be conducted in six 1-week sprints using the Scrum framework and enterprise architecture model methodology. The process includes "As-is" and "To-be" analyses, delivering detailed blueprints of the current and future state of ESA's IT architecture. This thorough understanding will help ESA strategically plan its transition to an ODA-based BSS, ensuring effective commercialization and enhanced operational capabilities.	<a href="#">Marand d.o.o</a>	Business Association/ Company	<b>Slovenia</b>

<b>Digital transition</b>	<b>Action 32:</b> Explore and promote innovative applications based on space data, including Copernicus and Galileo, for various end user purposes, expanding the utility of space assets.	- LEOBLUE is offering a breakthrough in the use of space data allowing satellites, in particular Earth Observation - EO satellites, to address directly the users on their smartphones. This will allow a huge development of the use of EO data, allowing new B to C models. To be implemented in 2025/2026.	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>
<b>Digital transition</b>	<b>Action 32:</b> Explore and promote innovative applications based on space data, including Copernicus and Galileo, for various end user purposes, expanding the utility of space assets.	- New Space Catalonia is already using its satellites, Copernicus and Galileo data to support farmers, fishers and other groups in the region.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Digital transition</b>	<b>Action 32:</b> Explore and promote innovative applications based on space data, including Copernicus and Galileo, for various end user purposes, expanding the utility of space assets.	- Space Y promotes the use of the EU Space Programme's data and services to enable applications in several sectors that are crucial for the European economy, security and well-being. The members of the Space Y network offer a number of innovative space-based services in sectors ranging from aviation to infrastructure monitoring, and from environmental monitoring to security and defence. Space Y promotes, through its channels and through participation in European meetings, examples of innovative applications in these sectors. Examples include: the use of the Galileo EWSS to warn the public about emergencies through billboards in public spaces; the use of satellites to distribute quantum entanglement in the future and to enable Space-based quantum key distribution (QKD) to better protect the European critical infrastructure from cyber-attacks; the use of satellite navigation to synchronise energy smart grids; the use of GNSS and SBAS to enable autonomous driving and the use of GNSS in combination with EO to ensure safety of autonomous vessels. Space Y is also interested in the EU Space Surveillance and Tracking (SST) component of the Space Programme and in the opportunities for commercial companies to develop services downstream.	<a href="#">Space Y</a>	Business Association/ Company	<b>France</b>

<b>Digital transition</b>	<b>Action 32:</b> Explore and promote innovative applications based on space data, including Copernicus and Galileo, for various end user purposes, expanding the utility of space assets.	<p>Spire Global provides space data for several projects in support of weather forecast, GNSS jamming and spoofing, GNSS independent location service (e.g. EURIALO project). In particular;</p> <ul style="list-style-type: none"> <li>- The Spire’s four levels of service can capture the full value chain. <ul style="list-style-type: none"> <li>o Delivering data collected from satellites including, ADS-B, S-AIS, RO, and more.</li> <li>o Combining Clean Data with 3rd party data sets to generate insights.</li> <li>o Adding proprietary analytics on top of smart data to predict future outcomes.</li> <li>o Tailoring solutions to incorporate analytics, visualization, and advisory services.</li> </ul> </li> <li>- Space-based data should be, by default, properly integrated in projects where a global perspective and data are needed to drive decisions. <ul style="list-style-type: none"> <li>o Space-based data can contribute to the green transition.</li> <li>o Space-based data can also help evaluate initiatives and their results.</li> </ul> </li> </ul>	<a href="#">Spire Global Germany GmbH</a>	Business Association/ Company	<b>Germany</b>
<b>Digital transition</b>	<b>Action 33:</b> Actively participate in initiatives such as the EU Space programme's space surveillance and tracking (EUSST) and EU Industry and Startups Forum (EISF) to contribute to a European SST commercial sector.	- LEOBLUE intends to use their technology to develop a low cost solution allowing the positioning and the identification of satellites like AIS for boat based on the Leoblue technologies. To be implemented in 2025-2026.	<a href="#">LEOBLUE</a>	Business Association/ Company	<b>France</b>
<b>Digital transition</b>	<b>Action 33:</b> Actively participate in initiatives such as the EU Space programme's space surveillance and tracking	- ONERA developed GRAVES ( <a href="#">GRAVES, the 1st European space surveillance system   ONERA</a> ) which provides about 80% of the whole EU SST capability to EUSST. Recently, an ONERA spin-off named ASTAREON scaled up to HEMERIA	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>

	(EUSST) and EU Industry and Startups Forum (EISF) to contribute to a European SST commercial sector.	surveillance, therefore testifying of the contribution of ONERA to the European SST commercial sector ( <a href="#">L'ONERA crée sa première filiale NewSpace : ASTAREON   ONERA</a> ).			
<b>Sustainable competitiveness</b>	<b>Action 34:</b> Anticipate global supply chain challenges by aligning procurement frameworks with emerging European capabilities, as encouraged by initiatives such as the EU Chips Act or the Zero-Net Industry Act (NZIA).	<ul style="list-style-type: none"> <li>- Aernnova has strengthened its Environmental, Social and Governance - ESG strategy and in 2022 expanded its targets and KPIs across a broad range of ESG metrics, building on its existing comprehensive Health and Safety and Quality/Standards monitoring. The company took steps to formalise its ESG governance with the introduction of a Sustainability Committee and the Board publicly disclosed Aernnova's nine ESG targets in October 2022 to promote accountability.</li> <li>- Aernnova is active in the Alliance for Zero Emission Aviation (AZEA).</li> </ul>	<a href="#">Aernnova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 34:</b> Anticipate global supply chain challenges by aligning procurement frameworks with emerging European capabilities, as encouraged by initiatives such as the EU Chips Act or the Zero-Net Industry Act (NZIA).	<ul style="list-style-type: none"> <li>- GTD has developed a cutting-edge solution based on the implementation of emerging technologies such as the Internet of Things, analytics, Big Data, and Artificial Intelligence, combined with systems that include Thermal Energy Storage (TES) technology. This innovative solution focuses on energy storage and maximizing the use of energy produced in-house, reducing the industry's dependency on external energy providers, and thus enhancing the independence of the private/public sector from traditional energy sources purchased outside Europe. At the same time, the solution's disruptive predictive planning and automatic optimization system enables the European industry to use energy more efficiently and reduce carbon emissions, moving towards the ultimate goal of creating Zero-Net Industries. Additionally, it provides other added value, such as increasing productivity and reducing costs, making European products more competitive.</li> </ul>	<a href="#">GTD Sistemas de Información S.A.U.</a>	Business Association/ Company	<b>Spain</b>

<b>Sustainable competitiveness</b>	<b>Action 35:</b> Make use of all R&D funding programmes and facilities, industrial alliances and instruments. Coordinate to identify priorities in view of future EU funding schemes and programmes.	- Aernnova is active in R&D funding programmes at EU and National level. We are already coordinated in Clean Aviation projects through the Joint Undertaking. We are active in ASD, TEDAE, the aerospace and defence association in Spain and AED, the Portuguese Cluster for the Aeronautics, Space and Defence Industries.	<a href="#">Aernnova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 35:</b> Make use of all R&D funding programmes and facilities, industrial alliances and instruments. Coordinate to identify priorities in view of future EU funding schemes and programmes.	- Maia Space is committed to continue working with the European Commission on Roadmap on Reusability (as elaborated 3 years ago). Stick to the plan. Investigate opportunities to fund additional flight test for reusability.	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 35:</b> Make use of all R&D funding programmes and facilities, industrial alliances and instruments. Coordinate to identify priorities in view of future EU funding schemes and programmes.	- New Space Catalonia created dedicated portal on their website that compiles all available funding opportunities at the regional, national, and international levels. It can be accessed here: <a href="http://ieec.cat/en/newspace/funding-opportunities">ieec.cat/en/newspace/funding-opportunities</a> . In addition, we have a specialized team focused on analyzing Horizon Europe calls and identifying relevant opportunities. We are responsible for disseminating this information across the ecosystem, ensuring that stakeholders stay informed and can actively engage in upcoming initiatives.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 35:</b> Make use of all R&D funding programmes and facilities, industrial alliances and instruments. Coordinate to identify priorities in view of future EU funding schemes and	- SAGAT is thinking at the future use of outcomes of TULIPS H2020 project and how to further develop the green energy transition in our airport. Currently the company is evaluating the participation to next CEF AFIF – Transport Alternative Fuels Infrastructure Facility EU call.	<a href="#">SAGAT S.p.A. Torino Airport</a>	Business Association/ Company	<b>Italy</b>

	programmes.				
<b>Sustainable competitiveness</b>	<b>Action 35:</b> Make use of all R&D funding programmes and facilities, industrial alliances and instruments. Coordinate to identify priorities in view of future EU funding schemes and programmes.	- ONERA on a national level is in charge of coordinating the research roadmap for the future of commercial (sustainable) aviation. The competencies of ONERA are committed to fulfil this role, in tight connection with the French actors. On the other hand, ONERA is an active (and founding) member of the 3 following associations/network: EREA for aeronautics, ESRE for space, EDRIN for defence. The commitment of EREA and ESRE is to derive priorities in view of the future EU funding for research. Part of the members commitment is also to support internal research (internal national funding) to address the same priorities.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 36:</b> Harness cooperation clusters and promotion of regionally coordinated consolidated demand initiatives.	- New Space Catalonia developed an initiative called DETA (Digital Emerging Technologies Alliance), where we collaborate with other governments of worldwide countries and regions to craft policies and support the adoption of space technologies. More information can be found here: <a href="https://detalliance.com/working-groups/newspace/">https://detalliance.com/working-groups/newspace/</a>	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 36:</b> Harness cooperation clusters and promotion of regionally coordinated consolidated demand initiatives.	- Aernnova is actively participating in the cluster that we are member (HEGAN (Basque Country Cluster), Andalucia Aerospace Cluster, Galicia Aerospace Cluster and Aragon Aerospace Cluster). Particularly, within TEDAE, HEGAN and AED we are transmitting the importance that Clusters have to rise the need for readiness in airport infrastructures for more electric aircraft in the future. This is mainly due to the Advanced Air Mobility, AAM, electrification projects that we are involved in. Also, there is a need for more awareness of electric AAM for potential defence and security operations.	<a href="#">Aernova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 37:</b> Encourage and facilitate stakeholders' dialogue with the financial	- New Space Catalonia has launched an acceleration program in collaboration with Starburst to help companies grow, secure funding, and strengthen their position within the space sector. The inaugural cohort consisted of four	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>

	sector actors to ensure easier access to financing.	companies. More information can be found at: <a href="https://newspace-catalonia-accelerator.webflow.io">newspace-catalonia-accelerator.webflow.io</a> .			
<b>Sustainable competitiveness</b>	<b>Action 37:</b> Encourage and facilitate stakeholders' dialogue with the financial sector actors to ensure easier access to financing.	- Aernnova is playing a role in the sector's key collaboration and innovation activity, working to transition the aerospace industry to a net zero future. In June 2022, the European Commission launched the Alliance for Zero Emission Aviation (AZE) to support the industry's green transition through use of operational efficiencies, sustainable aviation fuel and market-based carbon offsets. Aernnova became a member of the Alliance when it first launched, joining more than 300 experts from 140 organisations, and has actively contributed to the Alliance's working group on Aviation Regulation, Certification and Standards to help prepare for the entry of hydrogen and electric aircraft.	<a href="#">Aernnova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 38</b> - Ensure continued guidance around better the EU taxonomy rules and, in this framework, continue to support investments in green innovative technologies in the two components of the ecosystem	- Maia Space is committed to support inclusion of sustainability in definition of selection criteria for public support programmes (eg European Launcher Challenge (ELC). Contribution to the standardisation of LCA for space activities, based on common inputs databases for material and processes.	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 38</b> - Ensure continued guidance around better the EU taxonomy rules and, in this framework, continue to support investments in green innovative technologies in the two components of the ecosystem	- Consortium ANSER developed a parachute system for ZEHFIR Helicopter and looks forward to increased flexibility in EU regulations to implement it beyond fixed wings.	<a href="#">ANSER Srl - Aeronautics and space in Emilia Romagna</a>	Business association/ regional level	<b>Italy</b>
<b>Sustainable competitiveness</b>	<b>Action 39:</b> Safeguard critical technologies and equipment by establishing solid partnerships with like-minded	- Aernnova is participating in EU Next Generation Rotorcraft Technologies Project, ENGRT, that was selected for EDF 2021 funding. ENGRT is focused on the next generation EU military	<a href="#">Aernnova</a>	Business Association/ Company	<b>Spain</b>

	governments to navigate market complexities. Associate at EU regional level and beyond to develop cooperation in this area.	<p>rotorcrafts.</p> <ul style="list-style-type: none"> <li>- Aernnova is also part of the consortium for ENGRT 2 that is under evaluation, and we are positive that we will be selected. Aernnova current outcomes on ENGRT are mainly related to architecture modularity and ballistic protection. The potential applications of electric AAM for security and defense and the need for ballistic protection can be relevant for future challenges.</li> </ul>			
<b>Sustainable competitiveness</b>	<b>Action 40:</b> Swiftly integrate R&I results and supporting infrastructure, such as liquid hydrogen airport hubs, into operational capabilities, encouraging a dynamic synergy between research advancements and realworld applications to boost industry agility and competitiveness.	<ul style="list-style-type: none"> <li>- Aernnova is active in 4 Clean Aviation projects. Up Wing is focused on developing technologies for ultra-efficient short/medium-range aircraft to reduce fuel burn 30 % compared to the state-of-the-art reference Aircraft A321neo, in consequence, 30% emissions reduction in line with AZEA objectives.</li> <li>- The second project is FASTER H2 that investigates on Fuselage, Rear Fuselage and Empennage with Cabin and Cargo Architecture Solution validation and Technologies for H2 integration. The H2 is a zero CO2 emissions energy carrier and therefore aligned with AZEA.</li> <li>- Aernnova is also part of HERA. Finally, HERA and HERFUSE projects aim to study and develop disruptive Regional Turboprop aircraft configurations that will carry 50 to 100 passengers over routes up to 1000 km long with an Entry in Service from 2035. The hybrid regional turboprop architecture concentrates its efforts on the use of batteries feeding electric motors and hydrogen fuel cells with a high voltage distribution system. Aernnova leads the digital and sustainable manufacturing activities and concentrates on new empennage integration aspects.</li> </ul>	<a href="#">Aernova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 40:</b> Swiftly integrate R&I results and supporting	<ul style="list-style-type: none"> <li>- Inauguration in 2023 of Hyport in Toulouse-Blagnac (<a href="https://hyport.fr/">https://hyport.fr/</a>).</li> </ul>	<a href="#">Occitanie / Pyrénées-</a>	Regional Administration	<b>France</b>

	infrastructure, such as liquid hydrogen airport hubs, into operational capabilities, encouraging a dynamic synergy between research advancements and realworld applications to boost industry agility and competitiveness.		<a href="#">Méditerranée Region</a>		
<b>Sustainable competitiveness</b>	<b>Action 40:</b> Swiftly integrate R&I results and supporting infrastructure, such as liquid hydrogen airport hubs, into operational capabilities, encouraging a dynamic synergy between research advancements and real-world applications to boost industry agility and competitiveness.	- ONERA mission is to innovate and bridge between upstream research and industrial application. Our daily commitment is to perform applied research that can be derived into operational capabilities. In this context, the maintenance of current research infrastructure and the development of new infrastructures are essential to in fine support the industry competitiveness and agility. Important to note, research infrastructures are always facing challenge to provide cost-effective services and must be supported by a significant amount of public national funding, both for maintenance, upgrade and new developments (see also action 13).	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 40:</b> Swiftly integrate R&I results and supporting infrastructure, such as liquid hydrogen airport hubs, into operational capabilities, encouraging a dynamic synergy between research advancements and real world applications to boost industry agility and competitiveness.	- Regione Piemonte funded with SWIch fund the Hydrolab Project where SAGAT has the role of end user. The scope of the project is to understand how can change airport infrastructure in the future to host liquid hydrogen aircrafts. <ul style="list-style-type: none"> <li>○ Hydrolab – Bando SWIch Programma Regionale Piemonte F.E.S.R. 2021/2027 - Duration 30 months from 26/11/2024: SAGAT Torino Airport has a role of end user to address the research to future need for airports in terms of new infrastructures for liquid hydrogen distribution to feed hydrogen aircraft.</li> <li>○ The consortium, led by Reactis Italia and the Politecnico di Torino, is composed by small and medium size companies specialized in producing micro components for the aerospace industry.</li> </ul>	<a href="#">SAGAT S.p.A.</a> <a href="#">Torino Airport</a>	Business Association/ Company	<b>Italy</b>

		<ul style="list-style-type: none"> <li>○ SAGAT leads OR1 – END USE SUPPORT / END USER ANALYSIS - WP1.1 Airport distribution - end user analysis</li> <li>○ 1<sup>st</sup> deliverable M15 1<sup>st</sup> technical report (feb2026)</li> <li>○ 2<sup>nd</sup> deliverable M29/30 2<sup>nd</sup> technical report (apr/may2027)</li> </ul>			
<b>Sustainable competitiveness</b>	<b>Action 41:</b> Set research priorities aligned with the green transition, exploring topics such as clean energy-powered vehicles, material science, additive manufacturing, green fuels, and renewable and low carbon energy to encourage innovation in line with sustainability goals.	<ul style="list-style-type: none"> <li>- Aernnova is also active on other research, technology developments and innovation projects that are relevant for AZEA goals. We are developing projects to meet the new product developments for more electric aviation to meet the needs of our customers in advanced air mobility and small regional aircraft, as well as future trends in commercial transport aircraft.</li> <li>- We are covering these needs in part with the TRANSCEND project that is partially funded within the CDTI Spain's Aeronautical Technology Plan and the E-FLIGHT project that has partial funding from SPRI, Basque Government Agency. TRANSCEND's activities focus on new materials and composite processes for high cadences and very low weight. E-FLIGHT's solutions are related to the integration of electric motors in the structure and configuration of an aircraft and range from the development of new anti-icing systems in the wings that are not based on the blowing of hot air bleeding from the combustion engine, which is the most widespread current solution, to the design of new structural solutions that integrate high-power batteries.</li> </ul>	<a href="#">Aernnova</a>	Business Association/ Company	<b>Spain</b>
<b>Sustainable competitiveness</b>	<b>Action 41:</b> Set research priorities aligned with the green transition, exploring topics such as clean energy-powered vehicles, material science, additive manufacturing, green fuels, and renewable and low	<ul style="list-style-type: none"> <li>- Integrated in the Regional Innovation Plan (1 plenary meeting per year for each Strategic Innovation Area – ISD): <ul style="list-style-type: none"> <li>○ Smart and Sustainable Materials</li> <li>○ Smart and Sustainable Mobilities</li> <li>○ Energy Transition</li> </ul> </li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

	carbon energy to encourage innovation in line with sustainability goals.				
<b>Sustainable competitiveness</b>	<b>Action 41:</b> Set research priorities aligned with the green transition, exploring topics such as clean energy-powered vehicles, material science, additive manufacturing, green fuels, and renewable and low carbon energy to encourage innovation in line with sustainability goals.	- ONERA’s aeronautics civil program is fully aligned with green transition while exploring upstream concept: laminar portions in the outer areas, advanced integrated leading-edge systems; optimization and integration of an Unducted Single Fan (USF) propulsion system, new injector for hydrogen combustion, etc.	<a href="#">ONERA</a>	Academic/ research institution	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 41:</b> Set research priorities aligned with the green transition, exploring topics such as clean energy-powered vehicles, material science, additive manufacturing, green fuels, and renewable and low carbon energy to encourage innovation in line with sustainability goals.	- BioCH4 analysis in the future to make sure it is not harmful to the environment, and co-funding of a PhD thesis to assess black carbon emission from a rocket engine using methane and oxygen	<a href="#">Maia Space</a>	Other – Launch Service Provider	<b>France</b>
<b>Sustainable competitiveness</b>	<b>Action 45:</b> Upgrade manufacturing and technology chains encouraging faster production cycles, improved capabilities, quicker time to market, and improved long-term competitiveness.	- Occitanie/ Pyrenees-Mediterranee Region offers support for the transformation of companies in their change of production processes of services with the “Contrat Entreprise d’Avenir” ( <a href="https://hubentreprendre.laregion.fr/financement/contrat-entreprise-davenir">https://hubentreprendre.laregion.fr/financement/contrat-entreprise-davenir</a> )	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

<p><b>Sustainable competitiveness</b></p>	<p><b>Action 46:</b> Building on the example of IRIS<sup>2</sup>, explore possibilities to advance in connectivity technologies, such as telecommunication satellites and space relay networks, to ensure ubiquitous, secure, and reliable networks for various applications. Promote an active implication of both public and private sectors, conducive to maintaining EU leadership role in this area.</p>	<ul style="list-style-type: none"> <li>- ANSER works actively with Italian Defence and has many projects in these fields like Hamus and Hydra, disruptive innovations in avionics and navigation</li> </ul>	<p><a href="#">ANSER Srl - Aeronautics and space in Emilia Romagna</a></p>	<p>Business association/ regional level</p>	<p><b>Italy</b></p>
<p><b>Sustainable competitiveness</b></p>	<p><b>Action 46:</b> Building on the example of IRIS<sup>2</sup>, explore possibilities to advance in connectivity technologies, such as telecommunication satellites and space relay networks, to ensure ubiquitous, secure, and reliable networks for various applications. Promote an active implication of both public and private sectors, conducive to maintaining EU leadership role in this area.</p>	<ul style="list-style-type: none"> <li>- ONERA is deeply involved in these areas through the aforementioned GCSS space partnership (see action 11) which primarily intends to reinforce the competitiveness of the EU space industry.</li> <li>- The partners (among which ONERA) contribute to defining predominantly the EC work programme on secure and ground-tasked satellite communications with a strong emphasis on merging communication and earth observation satellites (data fusion, onboard treatment, multi-tasking, etc...).</li> <li>- ONERA considers that the EU could contribute with IRIS2 and other initiative to provide more launching opportunities for research piggyback payloads on commercial or institutional satellites.</li> </ul>	<p><a href="#">ONERA</a></p>	<p>Academic/ research institution</p>	<p><b>France</b></p>
<p><b>Sustainable competitiveness</b></p>	<p><b>Action 46:</b> Building on the example of IRIS<sup>2</sup>, explore possibilities to advance in connectivity technologies, such as telecommunication satellites and space relay networks, to ensure</p>	<ul style="list-style-type: none"> <li>- MaiaSpace is committed to contribute to IRIS<sup>2</sup> constellation or any other connectivity projects deployment through the provision of launch services, and also possible contribution to in orbit services related to satellite constellations dedicated to connectivity</li> </ul>	<p><a href="#">Maia Space</a></p>	<p>Other – Launch Service Provider</p>	<p><b>France</b></p>

	ubiquitous, secure, and reliable networks for various applications. Promote an active implication of both public and private sectors, conducive to maintaining EU leadership role in this area.				
<b>Sustainable competitiveness</b>	<b>Action 46:</b> Building on the example of IRIS <sup>2</sup> , explore possibilities to advance in connectivity technologies, such as telecommunication satellites and space relay networks, to ensure ubiquitous, secure, and reliable networks for various applications. Promote an active implication of both public and private sectors, conducive to maintaining EU leadership role in this area.	<ul style="list-style-type: none"> <li>- New Space Catalonia has launched a tender for an IoT satellite named Enxaneta, which re-entered Earth's atmosphere in October 2024. Despite some challenges, this first satellite mission, led by the government as part of the NewSpace strategy, successfully deployed global Internet of Things (IoT) connectivity services across Catalonia. The mission demonstrated several key insights: connectivity challenges, use cases for IoT within public administration, and the potential for generating and attracting talent. The data collected has validated technologies used between terrestrial sensors and the satellite, while also showcasing how these solutions can support the digitalization of rural areas and foster the development of new economic activities.</li> <li>- Moreover, companies within our ecosystem—such as Sateliot, which is fully dedicated to IoT—are advancing satellite connectivity with a constellation designed to deliver 5G NB-IoT services to rural and remote areas. <a href="#">Learn more here</a>. Additionally, Catalonia's first satellite data reception and control ground station, promoted by the Government of Catalonia in collaboration with the Institute of Space Studies of Catalonia (IEEC), is set to begin operations in May at the Sant Esteve Teleport, located at the Montsec Observatory. Announced during the 2024 International Astronautical Congress in Milan, this tri-band facility (S, X, and Ka bands) will be installed and operated by Leaf Space, reinforcing mission control and data reception capabilities for local and</li> </ul>	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/research institution	<b>Spain</b>

		international satellite operations. The station will play a central role in supporting missions like Menut and the future GENE0-2, further positioning Montsec—known for its low radio interference and dark skies—as a strategic site for both astronomy and satellite communications. This project is a cornerstone of the NewSpace strategy, aimed at enhancing regional capabilities, accelerating innovation, and promoting international cooperation. Looking ahead, we are also considering the development of a new telescope to enable laser-based communications, expanding our infrastructure’s technological reach.			
<b>Social dimension</b>	<b>Action 47:</b> Proactively engage in identifying emerging trends, technological advancements, and changing job roles to anticipate the skills that will be in demand, including entrepreneurship. Identify and submit proposals for specific trainings and identify jointly with academia and research institutes best methods to put these into practice.	- Regional Sector Strategic Committee and Specific Taskforce on Training and Employment in the Region on the Aerospace Sector in place (1 meeting/quarter).	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Social dimension</b>	<b>Action 48:</b> Improve working conditions, compensation, and job satisfaction while engaging in a social dialogue to boost labour retention, reduce recruitment expenses, and maximise returns on training investments.	- Commitment to inform, raise awareness and support companies on the challenge of investing in quality of life and working conditions to become more attractive and encourage employees' loyalty (Webinar Task Force and HR Service Offer tool as part of the Occitanie HR Team).	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

<b>Social dimension</b>	<b>Action 49:</b> As part of a wider effort to communicate about the specificities of the ecosystem, collaborate with educational institutions, engaging in industry-academia partnerships to communicate skill needs and align educational programmes with industry requirements. Contribute to ensuring targeted education from an early stage in the education process.	<ul style="list-style-type: none"> <li>- University Innovation Platform in the regions of Toulouse and Montpellier: an organization able to make the knowledge and technology transfer offer legible and of facilitating relations and public/private partnerships.</li> <li>- Campus des Métiers et des Qualifications d'excellence.</li> </ul>	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>
<b>Social dimension</b>	<b>Action 49:</b> As part of a wider effort to communicate about the specificities of the ecosystem, collaborate with educational institutions, engaging in industry-academia partnerships to communicate skill needs and align educational programmes with industry requirements. Contribute to ensuring targeted education from an early stage in the education process.	<ul style="list-style-type: none"> <li>- ONERA's mission is to bridge between academia and industry. As such, ONERA is involved in a lot of applied /pre-industrial research activity together with national and European industries. On the other hand, thanks to its 330 PhD applicants, ONERA is having a close link with academia, in all the French regions where ONERA centres are located. Academia is keen of (i) hearing the needs from ONERA to fulfil his role and (ii) access to unique testing facilities. The link with academia is also of great importance to assess the relevance of the educational programs and to identify the parts of the curriculum that would need to be strengthened.</li> </ul>	<a href="#">ONERA</a>	Academic/research institution	<b>France</b>
<b>Social dimension</b>	<b>Action 49:</b> As part of a wider effort to communicate about the specificities of the ecosystem, collaborate with educational institutions, engaging in industry-	<ul style="list-style-type: none"> <li>- Space Y commits to support the large-scale Skills Partnership in the space sector, involving its Members in projects aimed at bridging the gap between academia and the downstream space industry.</li> </ul>	<a href="#">Space Y</a>	Business Association/ Company	<b>France</b>

	academia partnerships to communicate skill needs and align educational programmes with industry requirements. Contribute to ensuring targeted education from an early stage in the education process.	- Furthermore, Space Y supports the recently-launched Space Career Launchpad, encouraging companies in the downstream space sector to advertise their open positions on the portal.			
<b>Social dimension</b>	<b>Action 49:</b> As part of a wider effort to communicate about the specificities of the ecosystem, collaborate with educational institutions, engaging in industry-academia partnerships to communicate skill needs and align educational programmes with industry requirements. Contribute to ensuring targeted education from an early stage in the education process.	- The TARMAQ project aims to encourage aeronautics vocations from discovery to employment, in a unique location in Merignac in the French heart of the ASD industry (70,000 employees across Nouvelle-Aquitaine, presence of Dassault Aviation, Sabena Technics, Ariane Group, Thales, etc). Based on the principle of edutainment, this "city of aeronautical and space sciences" will spread aeronautical culture (how does it fly, what for, decarbonization, jobs...) and show the variety of jobs behind the scenes. 9,000 square meters for a public investment of 40 million, TARMAQ will welcome 200,000 visitors per year from 2029 in the immediate vicinity of Bordeaux international airport. A training center for the integration of people in need, accessible to the general public, will complete the system.	<a href="#">TARMAQ</a>	Non-governmental organisation (NGO)	<b>France</b>
<b>Social dimension</b>	<b>Action 49:</b> As part of a wider effort to communicate about the specificities of the ecosystem, collaborate with educational institutions, engaging in industry-academia partnerships to communicate skill needs and align educational programmes with industry requirements. Contribute to ensuring targeted education	- As part of the NewSpace Strategy, and in collaboration with the Catalan Government and the Polytechnic University of Catalonia, a new bachelor's degree in Satellite Engineering has been launched to train future professionals in the space sector: <a href="#">Satellite Engineering Degree</a> . To further support talent development, we have also established an internship program that provides financial assistance to companies in our ecosystem for hiring students: <a href="#">Internship Grants</a> . In addition, we collaborate with the Catalunya-La Pedrera Foundation to offer summer space courses for teenagers, helping to spark early interest in space sciences: <a href="#">Summer Courses for Youth</a> . We are also proud to support the CanSat	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Space</b>

	from an early stage in the education process.	competition organized by ESA, which continues to break participation records, with 135 teams registered in the latest edition: <a href="#">CanSat Competition</a> . Lastly, we regularly give talks in schools and organize outreach activities to inspire young people to explore careers in the space industry.			
<b>Social dimension</b>	<b>Action 50:</b> Actively implement and increase the level of ambition of the Large-Scale Partnership for the Aerospace and Defence ecosystem under the Pact for skills, to address skills gaps, including by promoting continuous training and upskilling.	- New Space Catalonia is currently preparing a comprehensive report on the skills gaps within the space sector in our region, with the aim of identifying key areas for workforce development. As part of this effort, we are looking to establish a collaboration with the Space Skills Alliance ( <a href="#">spaceskills.org</a> ), a leading organization addressing skills needs in the space industry. Additionally, we are actively involved in SpaceSUITE ( <a href="#">spacesuite-project.eu</a> ), an initiative focused on tackling skills shortages across the European space ecosystem.	<a href="#">Institute of Space Studies of Catalonia</a>	Academic/ research institution	<b>Spain</b>
<b>Social dimension</b>	<b>Action 53:</b> Promote fairness, diversity, and inclusion by implementing dedicated recruiting and retention strategies. Create measurable diversity goals and a varied talent pool by offering innovative training programmes, flexible work policies, ensuring transparency, improved communication and interaction. Establish regular audits. Promote marketing recruitments campaigns presenting the benefits to have a career in the ecosystem that encourages the participation of women,	- Occitanie / Pyrénées-Méditerranée Region will ensure the adjustment of the training content of jobseekers so that it corresponds to the new skills sought by companies.  - It will provide information/awareness-raising/support for companies in welcoming vocational training trainees: a real challenge for the attractiveness of professions, qualification and retention of the workforce.	<a href="#">Occitanie / Pyrénées-Méditerranée Region</a>	Regional Administration	<b>France</b>

	young people and underrepresented groups.				
<b>Social dimension</b>	<b>Action 53:</b> Promote fairness, diversity, and inclusion by implementing dedicated recruiting and retention strategies. Create measurable diversity goals and a varied talent pool by offering innovative training programmes, flexible work policies, ensuring transparency, improved communication and interaction. Establish regular audits. Promote marketing recruitments campaigns presenting the benefits to have a career in the ecosystem that encourages the participation of women, young people and underrepresented groups.	- The Exploration Company commits to o keep the value of DEI high in our company and set measurable DEI KPIs by the end of 2025.	<a href="#">The Exploration Company</a>	Business Association/ Company	<b>Germany</b>

<b>Other comments and suggestion for the co-</b>	- Aernnova partners with several of the world’s major aerospace OEMs including Airbus, Boeing, and Embraer. The aerospace industry is subject to increasing regulation, stakeholder scrutiny, and partner expectations regarding climate impact. It is becoming increasingly clear that only the aerospace businesses who commit to	<a href="#">Aernnova</a>
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<p><b>implementation for the aerospace ecosystem</b></p>	<p>reducing their carbon footprint, as well as investing in the innovation required to transition the industry towards net zero, have a sustainable future.</p> <ul style="list-style-type: none"> <li>- By 2030, Aernnova seeks to reduce its energy consumption ratio by 40% vs 2021, reduce its carbon footprint ratio by 40% vs 2021, and recycle 90% of its waste.</li> <li>- Aernnova is also a founder member of the Clean Aviation joint undertaking. This forms part of the Horizon Europe EU funding programme and is designed to incentivise R&amp;D and accelerate innovation.</li> </ul>	
<p><b>Other comments and suggestion for the co-implementation for the aerospace ecosystem</b></p>	<ul style="list-style-type: none"> <li>- Starting with ISO 50001 (energy management system) certification in 2010 (2nd EU certified airport and 1st Italian).</li> <li>- Turin Airport joined the ACI Europe NetZero 2050 protocol in 2019 and in 2022 obtained the Level 3 'Optimisation' accreditation of the ACA Airport Carbon Accreditation program. In 2022 it signed the Toulouse Declaration, confirming its commitment to environmental sustainability.</li> <li>- Turin Airport has completed the transition to Level 3+ (Neutrality) of the "Airport Carbon Accreditation" environmental sustainability programme promoted by Airports Council International (ACI). Level 3+ certification requires the fulfilment of all Level 3 "Optimisation" accreditation requirements, which implies the preparation of an implementation plan to reduce carbon emissions and the drafting of a stakeholder involvement plan to extend the process of reducing emissions by the various players operating at the airport (airlines, handlers, sub-concessionaires, passengers and territorial realities). In addition to these requirements, level 3+ envisages the offsetting of residual emissions generated by the airport through high quality carbon offsetting projects. Turin airport has therefore become carbon neutral, completely neutralising the impact it generates on global warming and the generation of greenhouse gases.</li> <li>- In 2022, the percentage of electricity purchased from renewable sources (guarantee of origin certificates - GO) was 100% of consumption.</li> <li>- The renewal of the car fleet continued with the purchase of hybrid or full electric vehicles, with the aim of improving environmental standards by reducing exhaust emissions from vehicles operating at the airport.</li> <li>- The design of a new photovoltaic plant with a peak power of 1.6 MW for the self-production of electricity was completed in 2022 and the installation of large-scale ground-based photovoltaic plants is envisaged in the airport's development plan, enlarging it up to 6.5-7 MW.</li> <li>- Turin Airport participates as a fellow airport in the European project TULIPS (DemosTrating lower pollUting soLutions for sustanable airPorts across Europe), which aims to accelerate the introduction of sustainable technologies in the aviation sector, contributing to climate-neutral aviation by 2050. In particular, SAGAT is developing a pilot plant to test hydrogen as a storage system for electricity produced by a photovoltaic system, so that it can be used as a green fuel to power a fuel cell. A first small pilot plant has been inaugurated in October 2024.</li> </ul>	<p><a href="#">SAGAT S.p.A. Torino Airport</a></p>

	<ul style="list-style-type: none"> <li>- In 2022 SAGAT joined the AZEA (Alliance for Zero-Emission Aviation) initiative. The alliance includes the different realities of the air transport industrial ecosystem with the aim of promoting the introduction of renewable fuels for airports and airlines.</li> <li>- Participation in international initiatives represents a fundamental step towards NetZero 2050: an important commitment made by the SAGAT Group towards the environment and the community to reduce carbon dioxide emissions from operations under its control to zero by 2050, which Turin Airport has anticipated to 2040.</li> <li>- SAGAT is also part of the Distretto Aerospaziale Piemonte a very active association that involves all relevant stakeholders with the aim to enhance the competitiveness of Piedmont’s aerospace industry, guaranteeing coordination and long-term vision for public and private investment in technological innovation. The Cluster was one of the founders of the National Aerospace Technology Cluster (CTNA), which federates Italy’s leading aerospace hubs and brings together all the key players in the national aerospace system.</li> <li>- Being in the same cluster (Distretto Aerospaziale Piemonte) where the new technologies imagined by aircraft manufacturers (Leonardo, Avio Aero, ecc.) and cutting-edge research institutes (Politecnico di Torino) are realized in the context of “Clean Aviation JU” our aim is to help, as end user, the aerospace industry when the new propulsion technologies will become reality. In fact, to become operative, the new aircraft will need airports that have studied, designed and realized new infrastructures according to new aircraft engine technologies.</li> </ul>	
<b><i>Other comments and suggestion for the co-implementation for the aerospace ecosystem</i></b>	<ul style="list-style-type: none"> <li>- Invest and develop in QKD technology for Europe, as the future for secured communication</li> </ul>	SQDX France
<b><i>Other comments and suggestion for the co-implementation for the aerospace ecosystem</i></b>	<ul style="list-style-type: none"> <li>- Space Y will continue its efforts to voice the interests of the European downstream space industry and its role to increase Europe's security, autonomy and economic competitiveness. In the coming months, our efforts will focus on discussing our position paper with relevant European institutions.</li> <li>- The association supports initiatives aimed at promoting the creation of skills in the space sector and is member of the DIVERIS network.</li> </ul>	<a href="#">Space Y</a>
<b><i>Other comments and suggestion for the co-implementation for the aerospace ecosystem</i></b>	<ul style="list-style-type: none"> <li>- Zelin is an innovative design office specializing in digital simulation and AI. We offer R&amp;D design studies to develop new products and also develop digital twin solutions (IoT, scale models, satellite data) to improve product performance, maintenance and lifespan. Green coding and green design are part of our approaches</li> </ul>	<a href="#">Zelin</a>