D5.1 – Final digital platform

Document Author(s)	Panos Verras (EASN-TIS)
Document Contributor(s)	Benjamin Lopez (Aerospace Valley)

Abstract

The ECARE Digital Platform is a comprehensive tool designed to enhance collaboration, innovation, and sustainability in the aeronautics sector. Developed under the European Clean Aviation Regional Ecosystems (ECARE) project, the platform centralizes access to funding opportunities, research project data, and stakeholder competences. It offers advanced functionalities such as dynamic mapping tools, AI-driven data translation and categorization, an enhanced global search engine, and collaborative workspaces. Officially launched during the 14th EASN International Conference, the platform has since demonstrated significant growth, with a 230% increase in registered users and a 90% expansion in database entries. Continuous updates, including enhanced data visualization tools and the Insights section, ensure the platform remains adaptable and relevant. By serving as a tool to foster synergies and drive innovation, the ECARE Digital Platform supports sustainable aviation advancements and strengthens European leadership in aeronautics.

Keywords

ECARE Digital Platform, aeronautics, collaboration tools, funding opportunities, innovation, sustainable aviation, research projects, stakeholder engagement, AI-driven categorization, data visualization, European leadership.

Co-funded by the European Union

Information Table

Contract Number	**101101970**
Project Acronym	ECARE
Project Title	European Clean Aviation Regional Ecosystems
Call	HORIZON-JU-Clean-Aviation-2022-01
Topic	HORIZON-JU-CLEAN-AVIATION-2022-01-CSA-01
Type of Action	HORIZON-JU-CSA
Service	CAJU
Start date of project	01 January 2023
Duration	24 months
Project Coordinator	AV
Deliverable Number	D5.1
Deliverable Title	Final Digital Platform
Version	2.0
Status	Final
Responsible Partner (organization)	EASN-TIS
Deliverable Type	Other
Contractual Date of Delivery	31/12/2024
Actual Date of Delivery	20/12/2024
Dissemination Level	PU

Authoring & Approval

Prepared by		
Name and Organization	**Position and title**	**Date**
Panos Verras (EASN-TIS)	Head of Technology and Software Development	10/12/2024

Reviewed by		
Name and Organization	**Position and title**	**Date**
Benjamin LOPEZ (Aerospace Valley)	ECARE project coordinator	19/12/2024

Approved for submission by		
Name and Organization	**Position and title**	**Date**
Benjamin LOPEZ (Aerospace Valley)	ECARE project coordinator	20/12/2024

Document History

Version	Date	Status	Author	Description
1.0	20/11/2024	Draft	Panos Verras	First draft version of the document
1.1	18/12/2024	Final	Panos Verras	Final version with all sections completed
2.0	19/12/2024	Final	Benjamin Lopez	Final proofreading before submission

Disclaimer

The project is supported by the Clean Aviation Joint Undertaking and its members.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Clean Aviation Joint Undertaking. Neither the European Union nor Clean Aviation JU can be held responsible for them. The statements made herein do not necessarily have the consent or agreement of the ECARE Consortium. These represent the opinion and findings of the author(s).
The European Union (EU) is not responsible for any use that may be made of the information they contain.

Table of Contents

List of Figures

Acronyms and Abreviations

ECARE	European Clean Aviation Regional Ecosystem
EDP	ECARE Digital Platform
ESG	ECARE Stakeholder Group
MoU	Memorandum of Understanding
MoS	Memorandum of Synergies
RIS3	Research and Innovation Strategy for Smart Specialisation
SME	Small- and medium-sized enterprises
ISE	Intermediate Sized Enterprise
RTO	Research Technical Organisation

1. Introduction

The **ECARE Digital Platform** represents a significant leap forward in fostering collaboration, innovation, and sustainable development within the European aeronautics sector. Developed as part of the [European Clean Aviation Regional Ecosystems (ECARE) project], the platform responds to the increasing need for a centralized, dynamic tool that brings together diverse stakeholders. By facilitating access to vital resources and promoting synergies, the platform aims to address complex industry challenges and accelerate progress toward sustainability and decarbonization.

This platform was designed to serve as a hub for stakeholders, including funding bodies, small and medium enterprises (SMEs), intermediate sized enterprise (ISE), large companies, RTOs and universities. By offering advanced tools for mapping funding opportunities, exploring research project databases, and leveraging collaboration spaces, it bridges gaps between industry, academia, and public institutions. The ultimate goal is to create a cohesive ecosystem that drives meaningful advancements in aviation technologies.

The ECARE Digital Platform is not merely a repository of information but a forward-looking enabler of collaboration. It equips users with tools to identify relevant funding opportunities and funded projects, analyze gaps and overlaps in project landscapes, and connect like-minded organizations. These capabilities are underpinned by robust data management, intuitive user interfaces, and integrated AI-driven features, making it a truly transformative resource for the aeronautics community.

Through this deliverable, we aim to provide a comprehensive overview of the ECARE Digital Platform, including its features, functionalities, and impact. We will highlight its developmental journey and the innovative technologies behind it. By aligning with the ECARE project's broader objectives, this platform aspires to set a benchmark for fostering innovation and global competitiveness in the aviation sector.

To create an account, explore the platform and start accessing its powerful features, users can visit the official website at [https://ecare-digital-platform.eu].

Figure 1. ECARE Digital Platform homepage

CLEAN AVIATION
Co-funded by the European Union

2. ECARE Digital Platform overview

The ECARE Digital Platform emerged from a clear need to centralize and streamline access to critical resources and collaboration tools in the aeronautics sector. Its development journey reflects a collaborative effort among leading stakeholders in research, academia, industry, and public institutions, all united by the vision of advancing sustainability and innovation in aviation.

The platform's creation was guided by the ECARE project's mission to align European, national, and regional roadmaps, fostering synergies among stakeholders with diverse objectives. This process involved extensive consultations with funding bodies, SMEs, ISE, large companies, RTOs and universities to identify their specific challenges and requirements. The result is a platform that offers a comprehensive suite of tools tailored to meet the unique needs of these groups.

For funding bodies, the platform provides an efficient mechanism to map funding opportunities, analyze project landscapes, and optimize resource allocation. Clusters and networks benefit from enhanced visibility and collaboration tools that enable their members to connect and share expertise. SMEs, ISE, large companies, RTOs and universities gain access to critical funding data, technical profiles of potential partners, and spaces for collaborative engagement.

Key features of the platform include dynamic mapping tools for funding opportunities, a searchable database of research projects, and stakeholder competence profiles that help users identify and connect with relevant partners. Collaboration tools, such as secure workgroups and messaging features, further enhance its utility. At the heart of the platform lies the ECARE taxonomy, which organizes content into technical topics and facilitates precise data categorization and retrieval.

The platform's development also underscores its adaptability. Iterative improvements and user feedback integration have ensured that its functionalities align with evolving user needs and industry trends. As it transitions from a project-based initiative to a publicly available resource, the platform is set to become a cornerstone for advancing sustainable aviation in Europe and beyond.

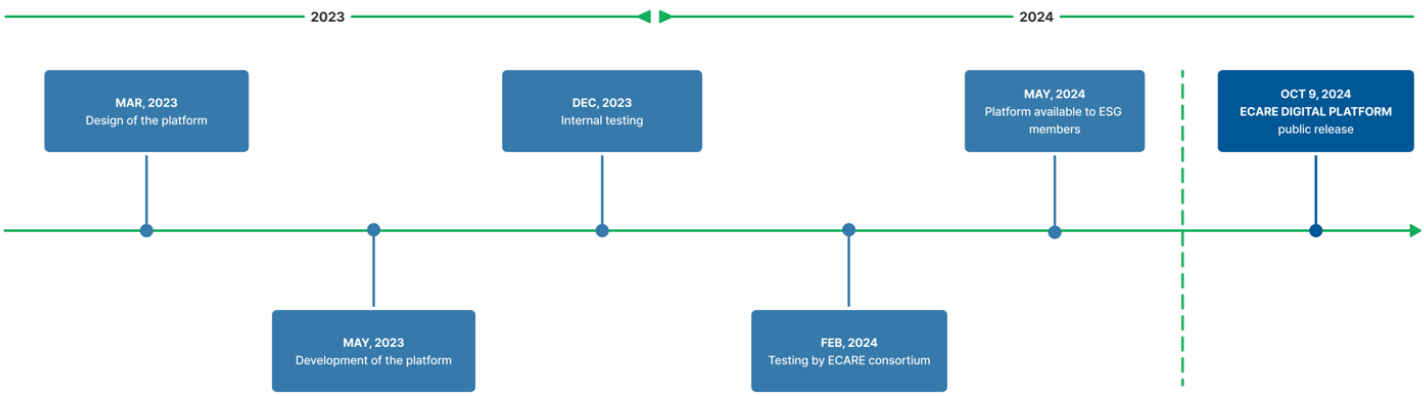

Figure 2. ECARE Digital Platform development timeline

3. Platform functionalities

The ECARE Digital Platform is designed with a wide array of functionalities that cater to the needs of a diverse set of stakeholders, ranging from funding bodies and clusters to SMEs, research organizations, and academia. These functionalities are underpinned by cutting-edge technology and a user-centric approach, ensuring accessibility, relevance, and efficiency in its operation.

A key feature of the platform is its robust user account management system, which enables users to create accounts tailored to their roles. Whether a funding body representative, a researcher, or an SME owner, each user can customize their profile to reflect their specific expertise, interests, and goals. The role-based access system ensures that users have targeted access to the tools and data most relevant to their needs, facilitating a seamless and intuitive experience.

The platform's databases form its backbone, offering a wealth of information that drives collaboration and decision-making. The funding opportunities database provides comprehensive details about regional, national, and European calls, including eligibility criteria, deadlines, and thematic priorities. Meanwhile, the projects database highlights ongoing and completed research initiatives, detailing their objectives, funding, partners, and outcomes. The stakeholder competence database bridges connections by categorizing entities based on their technical expertise, geographic location, and organizational type.

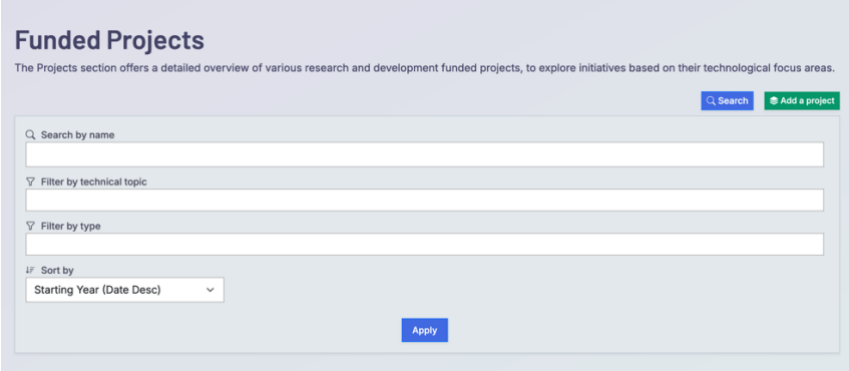

Figure 3. Funded projects search form

Advanced search and filtering capabilities enhance user interaction with these databases. The global search engine leverages smart algorithms, allowing users to pinpoint information with precision. Filters based on keywords, taxonomy terms, and geographic regions refine search results, ensuring efficiency and relevance. Additionally, interactive data visualization tools, such as dynamic charts and geographical maps, transform complex data into comprehensible insights, aiding strategic planning and resource allocation.

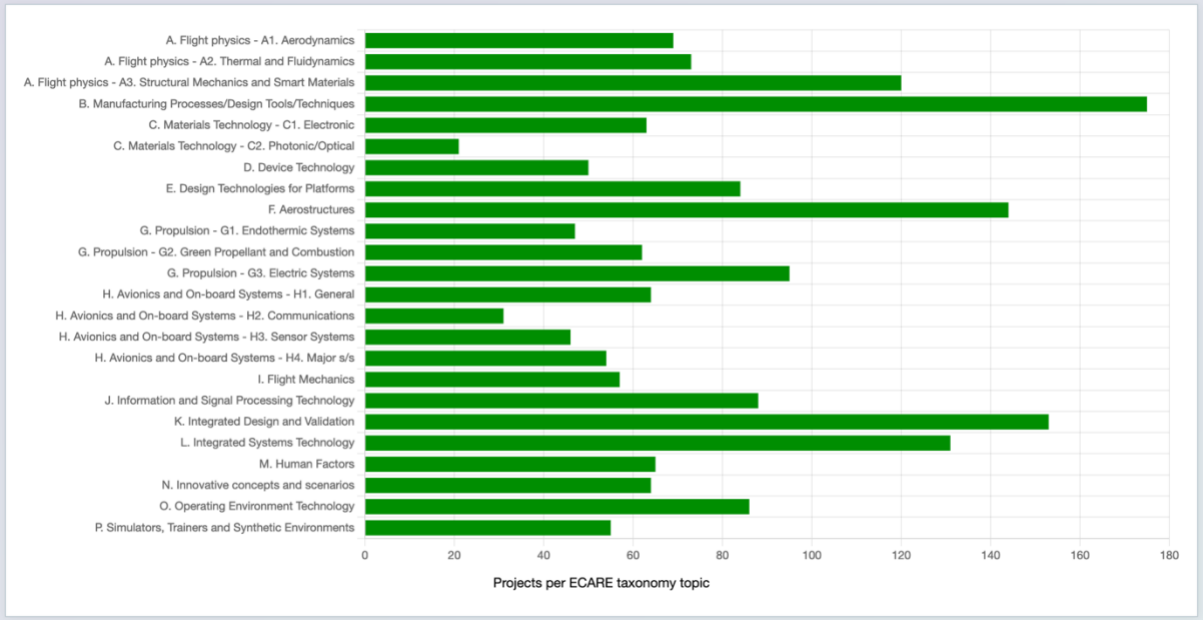

Figure 4. Dynamic chart of funded projects database

Collaboration tools are another cornerstone of the platform. Users can create or join workgroups, enabling private or public discussions, document sharing, and event planning. Integrated messaging features foster direct communication, while the partner search tool leverages the stakeholder database to identify potential collaborators based on shared interests and expertise. The insights section further promotes knowledge exchange by allowing users to share articles on research findings and success stories, creating a vibrant repository of shared knowledge.

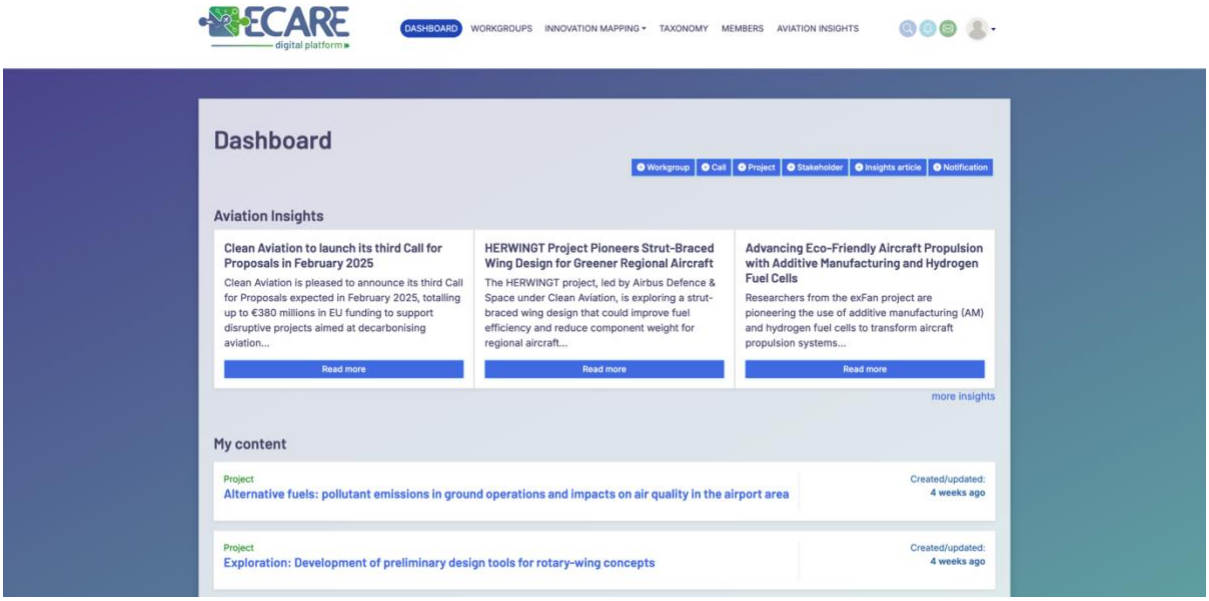

Figure 5. Dashboard section on digital platform

The platform's innovative taxonomy system ensures data consistency and relevance. By categorizing all entries into ECARE taxonomy topics, it allows users to filter and analyze data effectively. The integration of AI-driven tools automates the ECARE taxonomy tagging of new entries, reducing manual effort and improving accuracy. Another AI tool is the automated translation from the original language to English.

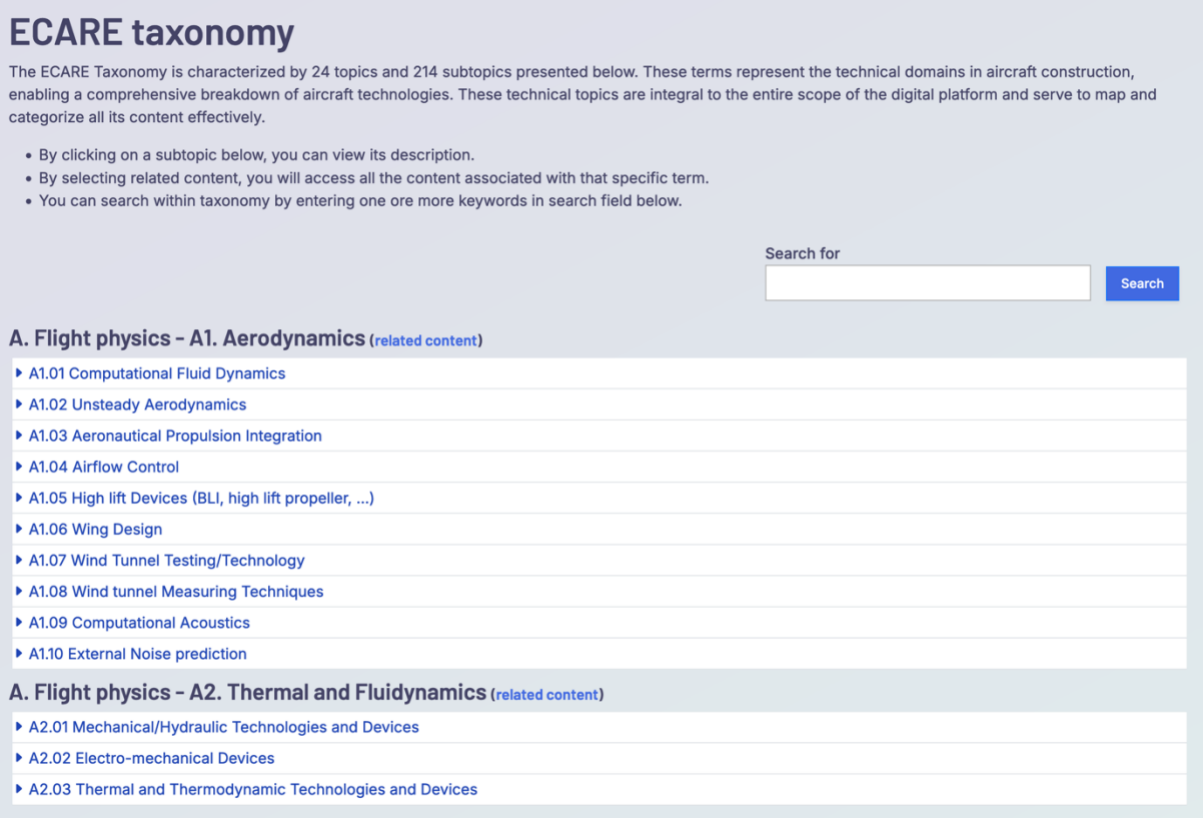

Figure 6. Taxonomy section on platform

To keep users informed, the platform incorporates customized notifications and updates. These alerts are tailored to individual user preferences, ensuring timely information about funding calls, collaboration opportunities, and other relevant activities.

The combination of these functionalities makes the ECARE Digital Platform an indispensable tool for fostering innovation and collaboration in the aeronautics sector.

4. Public launch and impact

The public launch of the ECARE Digital Platform marked a significant milestone in its journey, showcasing its capabilities and receiving initial feedback from key stakeholders. This launch took place at the 14th EASN International Conference in Thessaloniki in October 2024, a prominent event that brought together experts, organizations, and policymakers in the aeronautics sector.

The launch event featured live demonstrations of the platform's features, highlighting its potential to transform how stakeholders access funding opportunities, collaborate, and drive innovation. Participants were introduced to the platform's mapping tools, searchable databases, and collaboration spaces, with real-time walkthroughs illustrating their practical applications. Consortium members engaged directly with the audience during Q&A sessions, fostering a dynamic exchange of ideas and addressing questions about the platform's functionalities and future prospects.

Initial feedback from the launch event was overwhelmingly positive, with participants appreciating the platform's user-friendly interface, comprehensive data offerings, and collaborative features. Stakeholders particularly valued the ECARE taxonomy and the AI-driven taxonomy tagging and categorization of data, which were seen as critical to streamlining access to relevant information.

Since its launch, the platform has demonstrated measurable growth and engagement. The number of registered users has steadily increased, with SMEs, research organizations, and funding bodies making up the majority of early adopters. The database of projects and stakeholder competences has expanded significantly, reflecting the platform's growing utility and relevance.

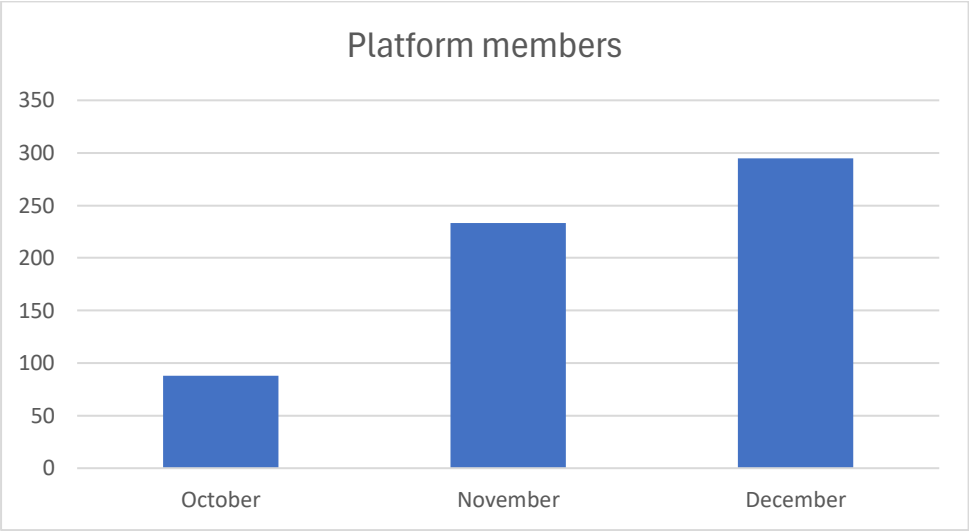

Figure 7. User registration since public release

Looking ahead, the ECARE Digital Platform aims to build on this initial success by incorporating user feedback into future updates. Plans include enhanced data visualization tools, expanded search capabilities, and additional features to support cross-border collaborations. These developments will ensure that the platform continues to meet the evolving needs of its user base while maintaining its position as a cornerstone of innovation in the aeronautics sector.

5. Conclusion

The ECARE Digital Platform represents a transformative tool for fostering collaboration, innovation, and progress in the European aeronautics sector. By centralizing access to critical funding opportunities, research project data, and stakeholder competences, it provides an indispensable resource that aligns with the industry's goals of sustainability and decarbonization.

Through its comprehensive features, such as dynamic mapping tools, advanced search functionalities, and collaborative spaces, the platform has established itself as a cornerstone for stakeholders, including funding bodies, SMEs, research organizations, and academia. The integration of the ECARE taxonomy and AI-driven data categorization ensures that users can efficiently access and utilize the platform's vast array of resources, driving informed decision-making and strategic partnerships.

The platform's successful public launch and subsequent growth underscore its relevance and value to the aeronautics community. The positive reception at the 14th EASN International Conference and the surge in user engagement highlight its potential to revolutionize how stakeholders connect, collaborate, and innovate.

Looking forward, the ECARE Digital Platform is poised to adapt and expand, incorporating user feedback to refine its features and functionalities. Future updates aim to enhance data visualization tools, introduce synergies mechanisms proposed by the ECARE project, and support a broader range of users across geographic and technical domains.

With ongoing support from the ECARE consortium and valuable partners, the platform is well-positioned to remain a driving force in sustainable aviation innovation. By empowering stakeholders to align their efforts, share knowledge, and achieve common goals, the ECARE Digital Platform reaffirms its commitment to advancing Europe's leadership in the global aeronautics landscape.