

AERO DAY 2025, The virtual twin experience for aerospace

CENIT – DASSAULT SYSTÈMES – INCAS

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DOI: 10.13111/2066-8201.2025.17.2.13

Received: 17 May 2025 / Accepted: 28 May 2025 / Published: June 2025

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Abstract: This paper presents a summary of AERO DAY 2025, a major scientific event in Romanian aerospace research and innovation, jointly organized by CENIT, Dassault Systèmes and INCAS. Held on May 15, 2025, in Bucharest, the event brought together key stakeholders from the aviation industry and academia to explore the impact of digital transformation in aerospace. Central to the event was the concept of the "Virtual Twin Experience", showcasing how advanced simulation tools and collaborative platforms such as the 3DEXPERIENCE ecosystem (CATIA, DELMIA, SIMULIA, ENOVIA) are shaping the future of design, manufacturing, and systems engineering. Highlights included keynote speeches, technical presentations, and workshops focused on emerging technologies, sustainability in aviation, and collaborative R&D initiatives. The event fostered knowledge exchange, networking, and strategic partnerships, positioning Romania as a contributor to innovation in the global aerospace sector.

Key Words: AERO industry, CENIT, INCAS, Dassault Systèmes, CATIA, DELMIA, SIMULIA, ENOVIA, digital twin, simulation, systems engineering, 3DEXPERIENCE, collaboration, innovation, smartPLM

PRESENTATION

We are pleased to announce the first leading scientific event in Romania in aviation, research and innovation organized by CENIT, Dassault Systèmes and INCAS - the National Institute for Aerospace Research "Elie Carafoli": AERO DAY, which took place on May 15, 2025 at the Pullman Bucharest Hotel - World Trade Center Hotel.

This event was an exciting opportunity for professionals in our industry to come together, share information and create relationships.

The event included a series of distinguished speakers and industry experts who discussed market trends and challenges and cutting-edge technologies and solutions for aviation.

In addition, networking workshops were also held, with valuable information, to enhance meaningful connections and promote industry knowledge.

The event brought together professionals and researchers from the aerospace industry and academic institutions, providing a dynamic platform for knowledge exchange and collaboration.



Keynote speaker CENIT: Mihai Cazacu - Welcome!



Keynote speaker Dassault Systemes: Eli Boichis
- Market trends & Challenges
- Cutting edge technology for AERO industry



Keynote speaker INCAS: Adriana Stefan - INCAS Presentation



Emil Costea - Technological Development Platform for “Green” Technologies in Aviation and Ecological Manufacturing with Superior Added Value



Adrian Gaz - CS2 Racer Helicopter project - Lessons learned



Ana-Maria Neculaescu - Accelerating Space Engineering with 3D Tools: Mechanical Design for the Aerospace Frontier



Bogdan Rusu - CATIA V5's 3D Environment in the Design of a new General Aviation Aircraft



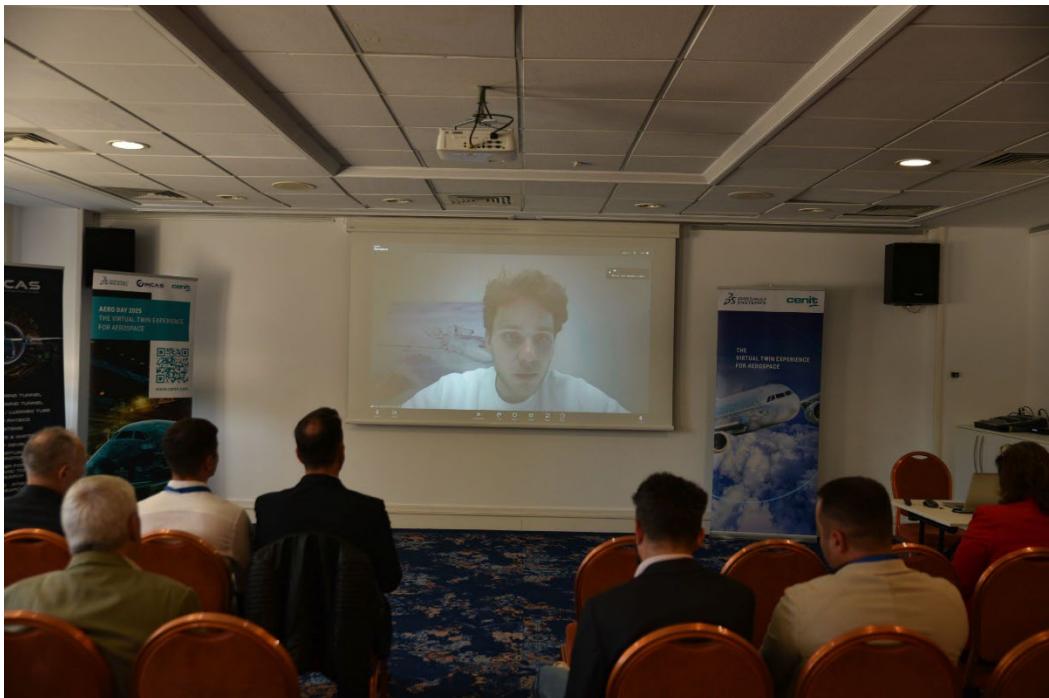
Eugen Florian Popescu - Cooperation on R&D at EU level. Use case: Certiflight project



Mihai Victor Pricop - Clean Outer Mold Lines in Aerospace with CATIA Scripting
- CATIA User Case in Experimental Aerodynamics (Gilbert-Mihaita Stoican)



Premium Aerotec - Client Testimonial - Emilian Cerneschi



Workshop/ Demo session on Generative experiences & AI - Jean-Sebastien Couchat



AERO DAY, May 15, 2025, Pullman Bucharest Hotel - World Trade Center

New proposals for future AERO DAY events:

1. "Startups & Innovation in Aerospace" Session

- Invite aerospace and space-tech startups to present emerging solutions.
- Host a startup pitch competition judged by industry leaders and venture capitalists.
- Facilitate networking between startups, investors, and research institutions.

2. Sustainability Track – "Green Aerospace Technologies"

- A dedicated stream focused on sustainable aviation: electric propulsion, SAF (Sustainable Aviation Fuel), recyclable composites, etc.
- Showcase national and EU-level projects on green transformation in aerospace.

3. International Keynotes & EU Collaboration

- Invite experts from ESA, EASA, Clean Aviation, or major EU universities.
- Include sessions on how Romanian stakeholders can participate in Horizon Europe or Clean Sky 2 projects.

ACKNOWLEDGEMENTS

We extend our sincere gratitude to all participants and distinguished keynote speakers whose valuable contributions and insights helped shape a successful and inspiring event. Their expertise and engagement significantly contributed to fostering collaboration, advancing knowledge, and strengthening Romania's position in the global aerospace ecosystem.

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