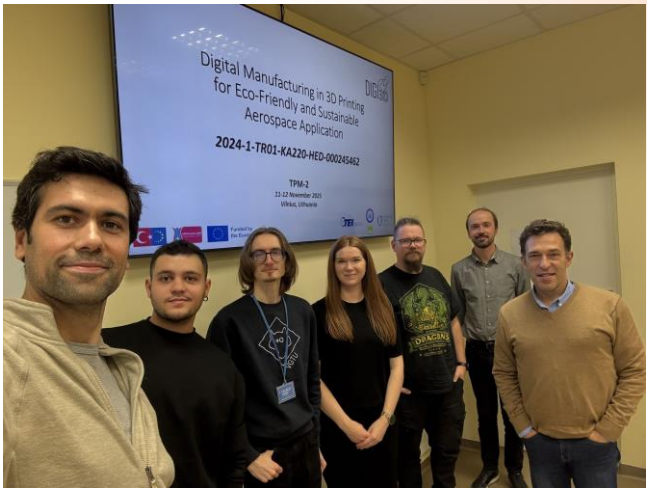
news DIGI3D

TPM-2 Meeting Successfully Held in Vilnius !

Project partners convened in **Vilnius** on **11–12 November 2025** for the second **Transnational Project Meeting** (**TPM-2**), marking an important milestone in the ongoing collaboration. The meeting brought together representatives from all partner organizations to review progress and coordinate the next stages of the project. A central focus of the discussions was **Intellectual Output-1 (IO-1): Educational Curriculum**. Partners exchanged views on the structure, content, and learning objectives of the curriculum, ensuring alignment with project goals and target group needs. Key design aspects were reviewed, and implementation strategies were examined in detail to support effective delivery across partner institutions. The meeting also provided a platform to address technical and organizational challenges related to curriculum development. Through constructive dialogue, partners identified solutions, clarified responsibilities, and agreed on timelines for the next phases of work. Overall, the **TPM-2 meeting** in **Vilnius** strengthened coordination among partners and contributed to a shared understanding of the curriculum development process, reinforcing the project's commitment to delivering high-quality educational outcomes.



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VILNIUS TECH
Vilniaus Gedimino technikos universitetas

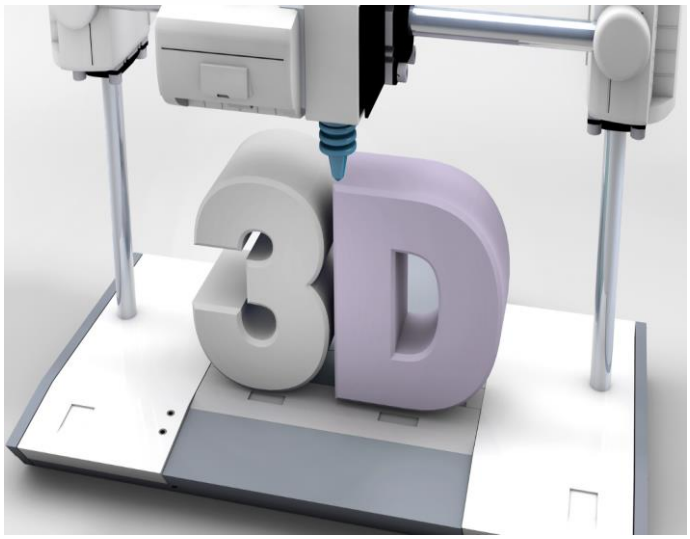
Vilnius Gediminas Technical University (VILNIUS TECH) is a prominent institution in aerospace engineering, actively contributing to the advancement of the field through a broad range of academic, research, and technological activities. The university is a **member** of the prestigious **PEGASUS aerospace network**, underscoring its strong commitment to excellence in aerospace research, education, and international collaboration. **VILNIUS TECH** has made significant investments in specialized laboratories and advanced equipment, creating a supportive environment for hands-on education and cutting-edge research. A unique asset of the university is its dedicated airfield, which serves as a practical testing ground for aerospace projects, including drone and unmanned aerial vehicle (UAV) development. In addition, the university has established a robust digital aviation infrastructure, incorporating advanced flight simulators and digital platforms for pilot training and air traffic control education. Recognizing the growing importance of digital manufacturing technologies in aerospace, **VILNIUS TECH** is actively advancing **metallic** and **polymer-based 3D printing processes** for **aerospace applications**. With a strong strategic focus on digitalization and innovation, the university has proactively positioned itself as a key contributor to the evolving aerospace sector, emphasizing the integration of digital technologies across education, research, and industrial collaboration.

Digital Technologies Shaping 3D Printing of Aero-Structures

Digital technologies are playing a central role in transforming **3D printing** for **aerospace structures**, enabling lighter, stronger, and more efficient components. By integrating advanced digital tools with **additive manufacturing**, the **aerospace industry** is accelerating design cycles while achieving performance levels that are difficult to reach with conventional methods.

Digital design and **simulation technologies** such as **CAD, topology optimization**, and **generative design** allow engineers to tailor **aero-structures** precisely to aerodynamic and structural requirements. These tools enable complex geometries, including internal lattice structures and functionally integrated components, resulting in significant weight reduction without compromising strength. The use of **digital twins** further supports virtual validation, reducing the need for extensive physical prototyping.

On the manufacturing side, **data-driven process** control ensures quality and repeatability. **Real-time monitoring, sensor integration,** and **machine-learning-based control systems** allow in-situ detection of defects during printing, supporting the strict certification demands of aerospace applications. **Digital inspection** and **lifecycle monitoring** complete the process, enabling reliable performance assessment throughout service life. Together, **digital technologies** and **additive manufacturing** are redefining how **aero-structures** are designed, produced, and sustained.



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