Deliverable 6.2 - SILEO Eurocluster space & 360 ° SILEO virtual tour

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Index

1. Introduction: purpose and objectives of the SILEO Eurocluster space

The SILEO Eurocluster Space was strategically conceived as a central dissemination and networking tool to boost the visibility of SILEO project as well as lighting and furniture SMEs and their innovative products across key international sectoral fairs. Notably, one of the main venues selected for this initiative was the ***Fuorisalone during the Salone del Mobile*** **in Milan** in Italy, a globally recognized design and furniture event.

The core objectives of this initiative included:

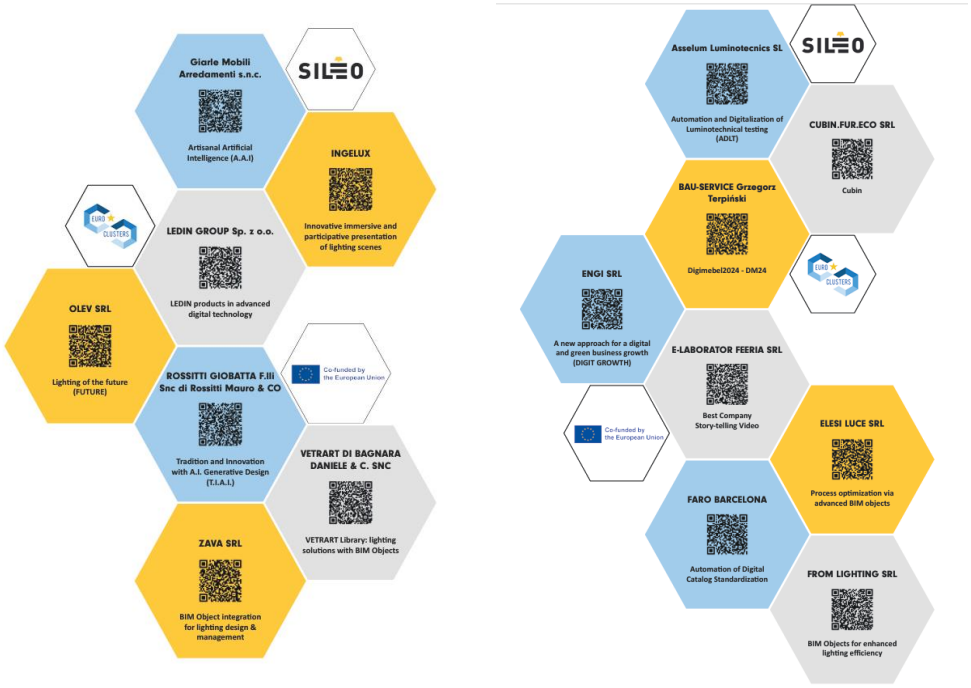
- **Enhancing visibility & stakeholder engagement**: The SILEO Space served as a curated experience to introduce the project and SME-driven innovations to a wide international audience, clusters and relevant industry stakeholders.
- **Disseminating SILEO project results**: The booth showcased tangible outcomes achieved by lighting and furniture SMEs through SILEO funding schemes, highlighting new products or services developed within the digital and green innovation pathways.
- **Fostering strategic business networking**: The space functioned as a hub for B2B interactions, including curated matchmaking events and direct dialogue between SMEs, clusters, technology providers and international actors from the lighting, furniture and design sector.
- **Extending reach via virtual tools**: A 360° virtual tour complemented the physical booth, ensuring access to visitors with clickable hotspots, technical sheets, and direct contact features for SMEs.

Through this multifaceted approach, the SILEO Eurocluster Space reinforced the project's mission of supporting SME transformation, contributing to Europe's industrial resilience, and advancing the digital and ecological transition.

2. SILEO panels design and conceptualization

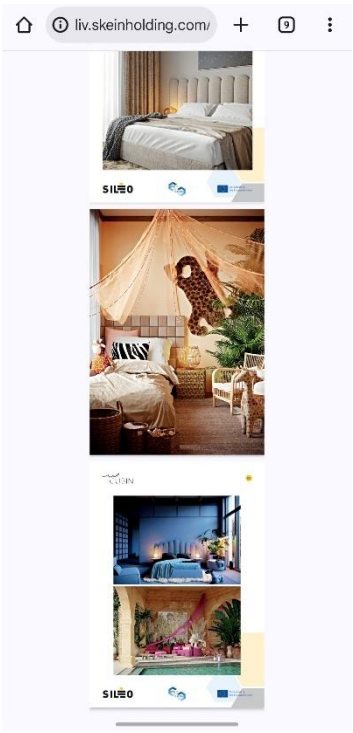
The conceptual and visual design of the SILEO Eurocluster Space was led by the ambition to blend immersive storytelling with technical precision and modular aesthetics. The physical space was hosted at the "*The Scale of Commitment*", an international exhibition curated by Materially (https://www.materially.eu/) – a prominent platform dedicated to the promotion and development of innovative, high-performance and sustainable materials. Hosted as part of the prestigious *Superdesign Show* in Milan, the exhibition provided a unique perspective on materials and companies distinguished by their strategic and tangible commitment to the green and digital transition. In this context, the SILEO corner was established as a central space within the exhibition. At the heart of the installation stood **two large panels**, developed and installed by SKEINHOLDING (https://skeinholding.com/), which visually and thematically represented **15 innovation projects** selected by project partners through SILEO's open calls for business digital transformation and advanced technology uptake. These projects, each aligned with SILEO's mission to support the twin transition, were chosen for their excellence in integrating ecological and digital innovation in the lighting and furniture sectors.

The **SILEO panels** served a dual function: they were both informative displays and scenographic features, designed to attract, guide and engage visitors. The structural layout of the SILEO Eurocluster Space was based on a modular tessellation of hexagonal elements, designed to evoke notions of interconnectivity and scalability. The installation embraced a colour-coded visual system rooted in SILEO's brand identity, with blue and yellow hexagons strategically arranged to delineate thematic areas or to represent individual SMEs and their respective innovation projects. This chromatic logic enhanced visual coherence while providing an intuitive navigational framework for visitors. The entire concept was meticulously crafted to merge aesthetic refinement with narrative clarity, echoing the design culture of the *Fuorisalone* and aligning fully with the visual and strategic identity of the SILEO Eurocluster project.

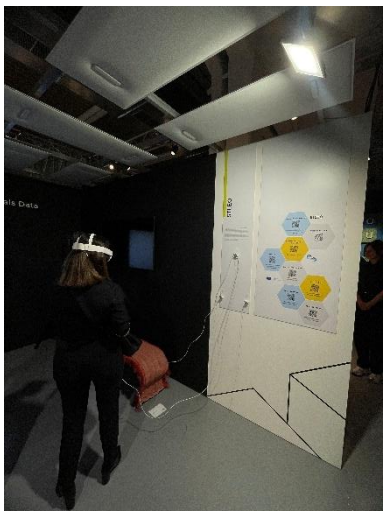


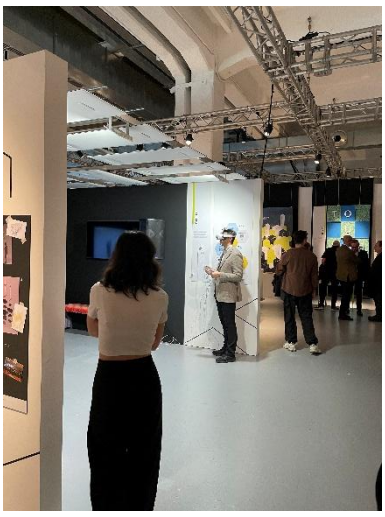
D6.2 SILEO Eurocluster space & 360 ° SILEO virtual tour

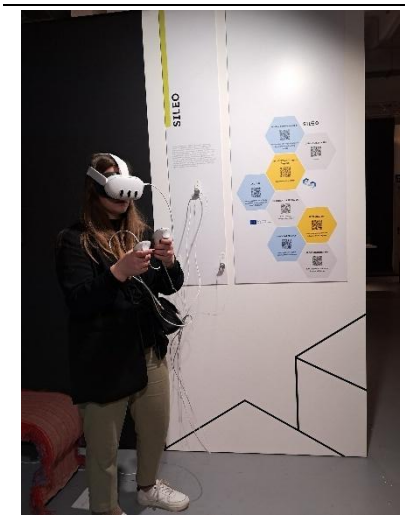
Each hexagonal unit incorporated a dedicated **QR code**, enabling visitors to access digital resources including detailed technical datasheets, project descriptions, and other relevant materials.



Furthermore, the SILEO corner integrated an **Oculus-based** mixed-reality experience that allowed visitors and stakeholders to go beyond the physical constraints of a traditional exhibition. Through this immersive interface, users were invited to explore a rich set of interactive 3D BIM models, on-demand video documentation, and other digital assets in real time, offering a multidimensional understanding of each showcased SILEO project innovation.









3. SILEO project selection and presentation

A curated portfolio of innovation projects was showcased within the Eurocluster Space, each representing SILEO's mission to drive the twin green and digital transition within the lighting and furniture sectors. All projects featured were selected through the two primary SILEO open calls - the "Business Digital Transformation Projects" and "Advanced Technology Uptake Projects" - which were designed to provide SMEs with targeted financial and technical support to explore, adopt or scale advanced solutions. These calls encouraged close collaboration between SMEs and technology providers, with the aim of translating digital and sustainable ambitions into measurable outputs and tangible market-ready innovations.

The selection process for exhibition was led by the partner clusters, who applied a set of qualitative criteria to identify projects best aligned with SILEO's objectives. In addition, attention was given to ensure a balanced geographical representation of SMEs from across the Europe. As mentioned in the section 2, each project was graphically represented within an individual hexagonal tile on the exhibition panels, accompanied by a short descriptions of project goals and outcomes, QR codes linking to digital content (videos, documents, VR demos) and brand visibility of the involved SMEs. The selected projects included:

1. **ROSSITTI GIOBATTA f.lli snc di Rossitti Mauro & C.O** (Italy, furniture SME) presented the *T.I.A.I. "Tradition and Innovation with A.I. generative design" project*, which exemplified the fusion of craftsmanship and generative design by integrating Generative Adversarial Networks and DALL·E 3 to

produce design concepts that merged artisanal techniques with machine learning. The company applied Design Thinking methodologies to prototype eco-conscious, aesthetically refined solutions, supported by a detailed SWOT analysis for market positioning.

2. **Elesi Luce srl** (Italy, lighting SME) focused on Building Information Modeling to advance the interoperability of its lighting portfolio by producing nine BIM-ready objects supported by complete photometric and electrical datasets in cooperation with two technology providers. This strategy enhanced their visibility within professional specifications and facilitated stronger collaboration with project stakeholders.

3. **BAU-SERVICE Grzegorz Terpinski** (Poland, furniture SME) developed the *DIGIMEBEL2024 (DM24) project*, focused on digital prototyping and modular furniture innovation. The company utilized tools such as Autodesk 3ds Max and V-Ray to design and evaluate a vanity table system with interchangeable components. The project leveraged user feedback through co-design workshops and digital simulations, creating a more efficient and user-responsive design process.

4. **GIARLE MOBILI ARREDAMENTO SNC** (Italy, furniture SME) implemented the *A.A.I. (Artisanal Artificial Intelligence) project* aimed to accelerate product development by integrating GAN and DALL·E 2 into traditional woodworking processes in collaboration with a technology provider. This synergy resulted in enhanced design agility, allowing for quicker response to market trends and customer personalization. The project also nurtured a collaborative environment where artisans worked in tandem with digital technology providers, creating a new hybrid design culture rooted in data-driven creativity.

5. **Asselum Luminotecnics sl** (Spain, lighting SME) carried out the *ADLT project*, which redefined the company's approach to photometric and luminotechnical testing through automation and artificial intelligence. By automating previously manual testing procedures and deploying a mass data algorithm, Asselum generated an extensive digital catalogue of photometric results. The integration of Big Data and AI not only optimized lighting performance but also eliminated the need for repetitive testing, significantly increasing operational efficiency and sustainability. This transformation enabled the company to reallocate human resources to strategic functions, reinforcing its market competitiveness and technological leadership.

6. **Faro Barcelona** (Spain, lighting SME) executed the *DICATTION_AUTOMATION (Automation of Digital Catalog Standardization)* project focused on the automated classification of lighting products using machine learning. This initiative, supported by the SILEO Advanced Technology Uptake Project, resulted in the deployment of an AI-driven system capable of autonomously assigning ETIM codes to product data. This digital infrastructure allowed for scalable data governance and strengthened the company's position as an industry innovator.

7. Through its Business Digital Project, **FROM LIGHTING** (Italy, lighting SME) integrated BIM workflows into its product development lifecycle. Through high-precision photometric testing and the generation of IES and LDT files, the company ensured its lighting models met the demands of architecture and design professionals. The result was improved collaboration and wider adoption of its solutions in design environments.

8. The communication and innovation duality of **SC E-LABORATOR FEERIA SRL** (Romania, furniture SME) combined a *storytelling campaign with a technology uptake project*. In collaboration with Craftex and MicaCera, the company developed solutions for sustainable metal cutting and ceramic disassembly, contributing to the circular economy in furniture manufacturing. These efforts were also featured in a

storytelling video, which was awarded as the winner of the SILEO Best Company Storytelling Video Contest.

9. **CUBIN.FUR.ECO** (Romania, furniture SME) leveraged advanced 3D printing with recycled materials to propose a sustainable, scalable alternative to traditional furniture production. By testing filament durability and structural properties, the company created a design language unattainable through wood or metal alone. This innovation helped position the SME within the green tech sector while opening new funding and market opportunities.

10. **OLEV srl** (Italy, lighting SME) implemented the *FUTURE project,* digitalizing its lighting catalogue and applying digital twin simulations to optimize product design, usage and predictive maintenance strategies, thereby modernizing the company's approach to integrated lighting solutions.

11. **LEDIN GROUP SP. Z O.O.** (Poland, lighting SME) expanded its 3D product visualization capabilities by creating 129 rendered lighting models. The company incorporated AI and advanced design tools such as Unreal Engine and Rhino3D, enabling interactive marketing experiences and strengthening digital commercialisation.

12. **Ingelux** (French, lighting SME) took a two-phased approach with its *2I2PLS project series*. The first tested immersive lighting design simulations for hospital rooms, while the second implemented the solution in a real-world setting, engaging more than 60 stakeholders in participatory design decisions. This reduced physical prototyping and enabled more user-informed design.

13. **VETRART DI BAGNARA DANIELE & C. SNC** (Italy, lighting SME) partnered with technology providers LightCube and Skeinholding to transform a segment of its product catalogue into *BIM-accessible formats.* Photometric evaluations ensured technical accuracy, while integration into Vetrart's infrastructure improved digital accessibility for architects and planners. This step forward enabled the company to position itself competitively within digitally equipped procurement chains.

14. **ZAVA srl** (Italy, lighting SME), through its business transformation project, utilised digital twins and BIM technologies to improve the precision and sustainability of its lighting portfolio. The project encompassed performance simulations, visual design enhancements, and predictive modelling, which collectively elevated the company's innovation capacity and technical reliability in high-demand markets.

15. **ENGI Srl** (Italy, lighting SME) with its *DIGIT GROWTH project*, employed BIM and digital twin technologies to simulate performance and sustainability within lighting applications. By building a comprehensive object library and enabling dynamic modelling of energy use and lighting control, ENGI empowered architects and engineers to optimize their designs from early concept stages. This initiative also enabled ENGI to expand into new market segments and deliver more refined, compliant solutions.

4. 360° SILEO Virtual Tour

The 360° SILEO Virtual Tour was developed in collaboration with SKEINHOLDING (https://skeinholding.com/), as a complementary digital experience to the physical Eurocluster Space exhibited during the FuoriSalone during the Milano Design Week 2025 in Milan, Italy. This virtual environment aimed to ensure full accessibility and long-term visibility of the SILEO projects, enabling stakeholders, industry professionals, clusters and the broader public to explore the showcased innovations remotely. The tour was designed and implemented using advanced panoramic photography and interactive web-based interfaces. The tour showcases the 15 innovation projects selected through SILEO's open calls, each represented by a clickable hotspot, enabling visitors to access detailed information, including technical data sheets and project descriptions, multimedia assets such as videos and images, BIM (Building Information Modelling) objects and digital twins.

The 360° tour served as a digital extension of the Oculus-based mixed-reality experience presented at the exhibition. While the on-site visitors interacted with BIM models and real-time simulations through Oculus headsets, remote users could access similar content in the virtual tour environment. This ensured continuity of experience and reinforced SILEO's commitment to digital transformation as both a subject and a method of communication.

Upon entering the tour, visitors find themselves surrounded by 15 pedestals arranged in a circular layout, each marked with the logo of the respective SME. By approaching each pedestal, users can view the BIM object and click an "Info" button to open detailed product data sheets. For those projects that also produced a video, a video playback option is available within the interface. Visitors can freely navigate the virtual space, moving from one project to another by approaching or stepping back from each element.

SILEO partners present at the Milano fair actively supported the Oculus-based presentations by providing visitors with comprehensive information about the featured SMEs' projects as well as the broader SILEO support scheme. Their on-site presence ensured an informed and engaging experience for attendees, effectively bridging the gap between physical and digital interaction. This activity offered lighting and furniture companies the opportunity to participate in a major sector exhibition without the need for physical presence. It allowed them to effectively showcase their innovations in product and process improvements, with a strong emphasis on digitalization and circularity.

Hosted on the official ELCA YouTube channel, the virtual tour was initially launched as a dissemination and visibility tool during the Milano Design Week. However, it is now positioned as a long-term digital asset of the SILEO project, continuously supporting outreach, knowledge transfer, and engagement with a European and international audience. Moreover, it has been widely disseminated to project stakeholders primarily lighting and furniture SMEs affiliated with the project partners through institutional channels, with the aim of sharing best practices and encouraging further initiatives that support the sector's digital and green transition.

The video is available here: https://youtu.be/l63-cBwMtW4

5. Conclusion

The SILEO Eurocluster Space and its associated virtual tour have successfully exemplified the project's commitment to advancing the digital and green transition of SMEs in the lighting and furniture sectors. Through a dynamic combination of physical exhibition, immersive mixed-reality experiences, and curated project showcases, the initiative delivered tangible visibility to innovative European SMEs supported by the SILEO calls.

The participation at the *Fuorisalone 2025*, within the prestigious framework of the *Superdesign Show*, as part of the international furniture fair *Salone del Mobile* in Milan, Italy, provided an influential platform to present the outcomes of 15 high-impact projects, which have demonstrated how advanced technologies, including artificial intelligence, Building Information Modelling, digital twins and 3D visualization, can be harnessed to enhance product development, accelerate digitalisation, and embed sustainability in industrial practices. The integration of storytelling elements, VR engagement and accessible technical documentation further amplified the outreach potential of the exhibition, transforming the Eurocluster Space into a comprehensive communication and dissemination tool. Notably, the SILEO exhibition attracted a large number of visitors (5.000) who explored the projects through the immersive experience and engaged in direct dialogue with SILEO partners and SME representatives. These interactions not only facilitated knowledge exchange but also fostered valuable connections for future collaborations in the lighting and furniture ecosystems.

The success of the initiative underlines the importance of transnational cooperation, SME–tech provider partnerships, and strategic design thinking in reinforcing Europe's resilience and innovation capacity in traditional sectors. Looking ahead, the SILEO Eurocluster Space serves not only as a snapshot of the project's achievements but also as a model for future cluster-led initiatives aiming to drive systemic transformation across European lighting and furniture industries.