



#4 PRESS RELEASE

From 2D Instructions to Guided XR Training: MOTIVATE XR Supports Immersive Assembly in the Aluminium Industry for Architectural Precision

[Brussels, Belgium - 28 May 2026] The EU-funded MOTIVATE XR consortium, in collaboration with the [Architectural Aluminium Academy](#) and [D-Cube](#), announces the launch of an "Active Progress Monitoring" framework designed to eliminate assembly errors in complex building systems. By replacing traditional 2D blueprints with augmented reality (AR) and computer vision, the project is setting up a new standard for quality control in the high-stakes world of architectural aluminium.

This third pilot milestone demonstrates the transition of the MOTIVATE XR toolset into high-precision manufacturing. By providing fabricators with real-time digital overlays and AI supervision, the project ensures that the thermal efficiency and structural integrity of modern energy-efficient buildings are never compromised by human error.

Overcoming the Complexity Gap

Architectural aluminium systems involve the assembly of many visually similar profiles, brackets, seals, accessories, and connection elements. For junior fabricators and trainees, understanding the correct sequence, orientation, and placement of each component can be challenging when relying only on 2D drawings, printed manuals, or verbal instructions.



MOTIVATE XR **Pilot 3: Aluminium Industry** addresses this challenge by deploying the **RTXR Player**, an augmented reality training application that transforms assembly instructions into interactive, step-by-step XR guidance. Instead of interpreting complex technical documentation in isolation, trainees can follow digital overlays, animated assembly steps, visual cues, and supporting media directly within the training environment. This makes the assembly process easier to understand, repeat, and evaluate, while supporting a more consistent transfer of technical know-how.

What makes the RTX approach distinctive is its connection to the MOTIVATE XR authoring workflow. Training scenarios can be created in the **Narrative Editor** without requiring programming skills, exported as structured XR training content, and then experienced through the RTX Player. This enables instructors and domain experts to translate real industrial procedures into reusable immersive training experiences.



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Proven Results with the Architectural Aluminium Academy

Initial trials focused on the **M450 training scenario** have validated the platform's immediate impact on workforce development and operational excellence:

- **Accelerated Learning:** Preliminary testing shows that the learning curve for junior fabricators is reduced by 70% through immersive, hands-on digital instruction.
- **Improved Training Consistency:** By using authored XR scenarios, instructors can provide a repeatable training experience that reduces dependency on informal explanations and supports a common understanding of the assembly process.
- **Remote Expert Support:** The introduction of the **Streaming Editor** allows senior experts to provide holographic, "over-the-shoulder" support to on-site trainees, preserving craftsmanship across a global workforce and provide real-time guidance, feedback, and assistance during training activities.



- **Scenario-Based Industrial Training:** The M450 scenario demonstrates how real aluminium assembly procedures can be transformed into immersive XR training content, combining 3D models, animations, instructional steps, and supporting documentation.

This launch marks the third of five strategic pillars in the MOTIVATE XR roadmap. Following the success of the aerospace and home appliance phases, the project is now scaling this innovation across the AAA's broader training portfolio.



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The next phase will further extend the Pilot 3 workflow through three complementary developments. The **Vision Module** will explore how computer vision can support the recognition and orientation of aluminium profiles and components during training, opening the way towards more advanced forms of assembly validation and trainee feedback.

In parallel, the **Narrative Editor Live function** will support a closer connection between the authoring environment and the XR training experience, allowing updates made by instructors to be reflected more directly during scenario preparation and testing.

The project will also explore **AI-assisted authoring within the Narrative Editor**, aiming to speed up the creation of XR assembly scenarios by analysing fabrication manuals, technical documentation, and assembly instructions, and automatically generating initial training content such as step descriptions, media suggestions, and structured scenario drafts.

Together, these developments will strengthen the link between technical documentation, digital training design, physical execution, and future AI-assisted supervision.



About MOTIVATE XR:

MOTIVATE XR is an EU-funded project dedicated to creating a world's leading XR collaborative authoring, publishing, and experiencing tool suite for training and assistance in industrial operations. By adopting a user-centred co-design methodology, MOTIVATE XR aims to democratise the creation and deployment of XR experiences, making them accessible to a wide range of users without programming skills.

For media enquiries please contact:

Melissa Tang | F6S | Communication manager | melissa@f6s.com

Natalia Cardona | F6S | Project manager | natalia@f6s.com



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MOTIVATE XR Partners:

The project brings together an impressive consortium of 17 partners from 7 different countries, ranging from research institutions, universities, universities to technological industry experts, all committed towards the same goal.



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