



VIOLET

AR/VR International Welding Engineer Qualification

VIOLET Project Publishes First Major Deliverable on XR Technologies for Welding Engineer Training

State-of-the-Art Report now freely available for download at violet-project.eu - eight months into a 36-month Erasmus+ initiative to modernise the I/EWE qualification

The VIOLET project - co-funded by the European Union's Erasmus+ programme - has published its first major deliverable: the State-of-the-Art Report on XR Technologies in Welding Education (D2.1). Released eight months after the project's launch, the report is freely available for download on the official project website at [State of Art Report on VR/AR](#).



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First Milestone: State-of-the-Art Report on XR in Welding Education

The State-of-the-Art Report (D2.1) provides a comprehensive mapping of current Virtual Reality (VR) and Augmented Reality (AR) technologies applicable to welding engineer training, assessing their alignment with the I/EWE curriculum and ISO 14731 standards. It establishes the evidence base from which the consortium will develop digital learning units, XR simulation scenarios, and a harmonised assessment framework in the next project phase.

Its open publication reflects VIOLET's core commitment to knowledge transfer: all project deliverables are made freely accessible to training providers, welding professionals, and industry stakeholders across Europe.

"This report is the foundation on which VIOLET's digital training tools will be built. By making it openly available, we invite training providers, welding professionals and industry stakeholders across Europe to engage with our findings and help shape what comes next."

- VIOLET Team





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About the VIOLET Project

VIOLET (ar/Vr InternatiOnal weLding Engineer qualificaTion) is a 36-month Erasmus+ initiative that modernises the International/European Welding Engineer (I/EWE) qualification - the highest level of certification for welding coordinators - by restructuring it into modular Competence Units and integrating immersive XR technologies for both theoretical and practical training.

The project addresses three critical challenges in welding VET across Europe:

- Digital transformation: integrating e-learning and XR (VR/AR) tools to make training more flexible, accessible, and efficient
- Cost and accessibility: reducing dependency on physical workshops, lowering material waste, and expanding reach to learners across Europe
- Industry alignment: ensuring the I/EWE qualification matches the demands of advanced manufacturing, including the green and digital transition

Concrete outputs include digital learning modules, a harmonised question database, XR-based simulation scenarios, and guidelines for integrating VR/AR into the EWF Quality Assurance System. National pilot courses will be run in Poland, Romania, and Slovenia, followed by transfer seminars and a Final European Conference in Portugal.

Led by the Polish research centre **Łukasiewicz - Upper Silesian Institute of Technology**, the VIOLET consortium brings together six organisations: **Łukasiewicz - GIT** (Poland), **ASR - Romanian Welding Society** (Romania), **IZV - Institut za varilstvo** (Slovenia), **ISQ e-learning, SA** (Portugal), **EFW - European Federation for Welding, Joining and Cutting** (Belgium) and **ATS / Seabery** (Spain).



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