

ENHANCING DIGITAL INNOVATION (WEB 4.0) AND ATTRACTIVENESS OF VET THROUGH EXTENDED REALITY (VR/AR) TRAINING FOR BETTER SKILLS-MATCH

A3.3 Creating the Job-Portrait For XR Simulations key jobs needs



AUTOMOTIVE VEHICLE TECHNICIAN / MAINTENANCE



Country: Belgium



CORE SKILLS

- **Technical Expertise:** Engine repair, diagnostics, electrical systems, routine maintenance
- **Problem Solving & Precision:** Accurate fault finding, attention to detail, safety compliance
- **Customer & Workflow Skills:** Clear communication, time management, teamwork



HOW XR ENHANCES TRAINING

Training Scenario	XR Benefit
<ul style="list-style-type: none"> • Complex diagnostics and repair of combustion, hybrid, and electric vehicles • Advanced electrical and EV systems • Workshop safety and tool use 	<ul style="list-style-type: none"> • Safe hands-on repetition and troubleshooting without damaging real components • Immersive 3D visualization of circuits and energy flow • Risk-free practice and guided simulations

COUNTRY-SPECIFIC

- **Challenges:** Belgium's automotive sector is rapidly shifting toward electric and smart vehicles, but VET programs face a skills gap in EV and digital technologies. There is also fragmentation between regional training systems (Flanders, Wallonia, Brussels) and varying access to advanced training tools.
- **Training Availability:** Strong regional VET networks and dual-learning systems (school + company), yet limited integration of XR and simulation technologies in technical curricula. Most training remains hands-on but lacks digital augmentation.
- **Needs:** Incorporate XR simulations for EV, hybrid, and ADAS (Advanced Driver Assistance Systems) training. Strengthen collaboration between VET providers, industry, and technology developers. Promote teacher upskilling in digital and immersive learning methods.

CAREER PATHWAY

Progression: Apprentice Mechanic → Qualified/Junior Mechanic → Automotive Technician → Workshop Supervisor → Garage Owner / Specialist Engineer (with further study or certification)



TRAINING

- **Training Mode:** Blended learning (theory online + VR simulations + hands-on workshop placement)
- **VET Providers:** Public VET Institutes, Automotive employers (e.g. dealerships, service centres), Regional TAFEs and trade training centers.

