



MED1stMR
Mixed Reality Training

19 Partner

9 Countries

6+ End User - Partner



Biosignal Measurement of Trainees

Low Invasive VR Equipment

5 Sensors,
Head Mounted Display,
Headset



Trainee View



Simulation Manikin for Haptic Experience



Video



Trainer Station for Monitoring & Feedback

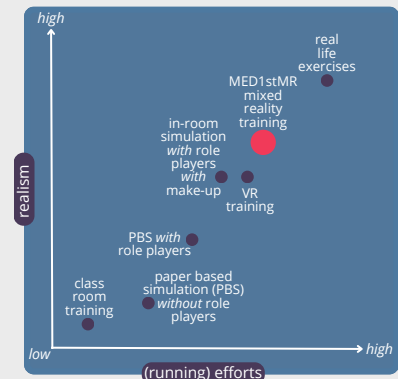
The MED1stMR solution aims to revolutionise training methods, enhancing the readiness of medical first responders (MFRs) to handle challenging and intricate disaster scenarios. It utilises cutting-edge **mixed reality** (MR) technology, merging medical patient simulation **manikins** with **virtual environments** and intelligent **scenario** control features by including **biosignals** measurement. This innovative approach forms a comprehensive MFR training framework designed to bolster situational awareness, **resilience**, and overall **performance effectiveness**.



Policy Brief & Decision Maker Strategies

Current medical first responder training for mass casualty incidents is either **unrealistic** (classroom or paper patients) or too **expensive** for regular sessions with a high number of trainees (real-life exercises). MR offers the opportunity to simulate realistic emergency scenarios. By integrating haptic feedback and artificial intelligence, we can adapt the training environment to the individual needs of the organisations and even the trainee. Participants can immediately evaluate their performance which promotes learning and continuous improvement. MR can become a **valuable complementation** in MFR training to raise overall **preparedness**.

Embracing MR training for MFRs is a strategic investment in the resilience and effectiveness of the **EU's emergency response capabilities**. Mixed Reality (MR) and consequently Xtended Reality (XR) are suitable technologies to enhance the learning effects for medical first responders (MFRs).



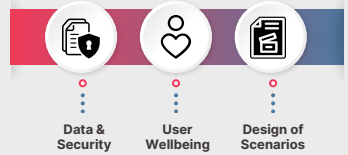
www.med1stmr.eu







Policy Considerations MED1stMR

- Establishment of a comprehensive **policy framework** that recognises MR training as a vital component of MFR education all over Europe, including funding for set up within MFR organisations.
- **Standards** and guidelines for MR training modules ensuring **effectiveness, consistency, and interoperability**.
- **Certification** for training (framework) as well as **trainers** and training institutions.
- Provisioning of **(ethical) guidelines** and support to fulfill relevant medical and healthcare regulations, **data security** laws (e.g. GDPR, data transparency, etc.) as well as labour law.
- Foster XR **technology know-how** within the EU by introducing XR programs at universities and schools (besides development and programming, ethical design, XR in the training context, AI in the XR context, etc. are relevant to teaching & research).
- **Cooperation** of all **first responder** disciplines (certification, standards, ethical considerations, etc.) to raise *interoperability* and *preparedness* at all levels.
- **Best practice** exchange platforms & programs to increase knowledge.

Ethical & Legal Considerations for Mixed Reality Training



Top 5 Advantages MED1stMR

1. End User Involvement 
2. Train the Impossible 
3. Cost Efficiency 
4. Haptic Experience 
5. Realism 



How to successfully introduce Mixed Reality training to your organisation

Practical guidelines derived from MED1stMR project: Detailed preparation, clear objectives & responsibilities, and active engagement will lead to a successful implementation



Challenges introducing MR to MFR organisations - end-user POV

- Bureaucratic issues within the organisation (best practices and guidelines missing)
- Space for training set-up
- Assigned trainers with MR know-how (incl. allocated budget)
- Personnel with tech. know-how
- Dedicated training time for high usage rates to justify costs
- Budget (acquisition & running)
- GDPR issues
- Technology acceptance



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