



Recommendation 12:



Using 'Virtual Reality' to meet the societal need 'Experiential education and training' and the public sector need 'Recruitment and training'

Status quo:

Existing solutions include Google Cardboard, Samsung Gear VR and Oculus Rift in terms of hardware, and in terms of software platforms (for schools and universities) Immerse VR Education, Altrange VR and Unimersiv. The number of applications for virtual reality training is increasing over time. Thus, also special applications for the public sector (e.g. in the health area or in the area of emergency management) are possible. VR supported training use cases within the context of the public sector may indicatively include medical training / surgery simulation, architectural walkthroughs, historical re-enactments, emergency services (paramedic training), combat training, rescue teams training, professional and citizens training for crisis situations, Virtual tours and field trips to museums, landmarks or even outer space, etc.

Recommended actions:

Technical challenges:

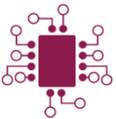
- Identification of more natural ways for users to interact with virtual reality systems;
- Design of quality virtual reality solutions for domain specific training purposes;
- Adaption and reuse of existing VR systems;
- Ensuring platform and components compatibility.

Non-technical challenges:

Health: Exploration of the long-term effects of VR in health.

Cost: Develop new, more effective and cheaper models for the incorporation of virtual reality systems in public sector practices and related training contexts.

Promotion: Develop a strategy to promote virtual reality to the general public.



Links – text to be shown when clicking on the technology or the need:

Experiential education and training/Recruitment and training:

Need referring to the aspects of facilitating skill development, enabling communication in different languages, and delivering affordable bilingual / international educational offer among youth and children. Specific instances as clarified by some informants are: "Helping children in their development and education", "Technical and behavioural skills shortage", and "Bilingual/multilingual environment with English as priority/Intercultural education at affordable prices". This need represents also a serious concern within the public sector and as such refers to attracting/recruiting top talent, investing in staff development/ motivating staff (investing in training, leadership development, succession planning, talent management), allowing internal mobility (transferring staff from diminishing sectors to growing ones), retaining high quality staff and offering job security. Respective quotes accordingly include: "Many employees are still struggling with word and excel", "IT Literacy level in older Personnel is low", "Need for continuous education", and "Need for continuous skill evaluation, improvement and reorganisation".

Virtual Reality:

Virtual Reality (VR) provides a computer-generated 3D environment that surrounds a user and responds to that individual's actions in a natural way. It refers to computer technologies that use software to generate realistic images, sounds and other sensations (e.g. smell, vibrations, etc.) that replicate a real environment (or create an imaginary setting), and simulate a user's physical presence in this environment, by enabling the user to interact with this space and any objects depicted therein using specialized devices (e.g. display screens, projectors, goggles, headsets or head-mounted displays, gloves, etc.) VR actually brings the user into the digital world by cutting off outside stimuli. In this way user is solely focusing on the digital content**.*

* Gartner IT Glossary – Virtual Reality, <http://www.gartner.com/it-glossary/vr-virtual-reality/>

** Wikipedia – Virtual reality, https://en.wikipedia.org/wiki/Virtual_reality