

TARGET

INTEGRATING VR AND AR INTO SECURITY TRAINING

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TARGET CONSORTIUM

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Training Augmented
Reality Generalised
Environment Toolkit



WHAT IS TARGET?



Mixed-reality experiences immersing trainees at:

- Operational level
- Tactical level
- Strategic command level



Responding to a range of current European training needs:

- Tactical firearms events
- Asset protection
- Mass demonstrations
- Cyber-attacks
- CBRN incidents



Led and defined by end users from 6 EU MS:

- Slovakia
- Estonia
- France
- Germany
- Spain
- UK



PARTNERS

Technical Partners	End Users	Experts
<div><div>LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY</div><div>LIST</div><div></div></div> <div><div></div><div>ATRISC</div></div> <div><div></div><div>Fraunhofer IVI</div></div> <div><div></div><div>ISCC International Security Competence Centre</div></div> <div><div>SNT</div><div>securityandtrust.lu</div></div>	<div><div></div><div>Protecting local communities</div></div> <div><div></div><div>SISEKAITSEAKADEEMIA ESTONIAN ACADEMY OF SECURITY SCIENCES</div></div> <div><div></div><div>Fachhochschule Polizei Brandenburg</div></div> <div><div></div><div>ISEM INSTITUTE</div></div> <div><div></div><div>Deutsche Hochschule der Polizei</div></div>	<div><div></div><div>ENSP ÉCOLE NATIONALE SUPÉRIEURE DE LA POLICE</div></div> <div><div></div><div>Institut de Seguretat Pública de Catalunya</div></div> <div><div></div><div>ARTIC INTERNATIONAL MANAGEMENT SERVICES</div></div> <div><div></div><div>INCONNECT communicatiepartners voor strategie, training & advies</div></div> <div><div></div><div>ENS ÉCOLE NORMALE SUPÉRIEURE</div></div>



OBJECTIVES OF TARGET



enable EU user organisations to deal with security challenges



develop richer SCA training modules



better qualified staff



reduce costs for new training



speed up new training process



share best practices between EU organisations



enable societal dialogue



strengthen capabilities of SCA to deal with complex ethical issues



COMPONENTS WITHIN TARGET

VIRTUAL
REALITY

COMPETENCE
ASSESSMENT

DECISION
SUPPORT

NON-LINEAR
SIMULATION



**NEW COMPONENTS
AND IMPROVED AND
ADAPTED EXISTING
COMPONENTS
FIT INTO THE
TARGET PLATFORM**



TOOLS WITHIN TARGET



Tracking Systems and
Simulated Equipment



Command Post
Software

AR / VR Headsets

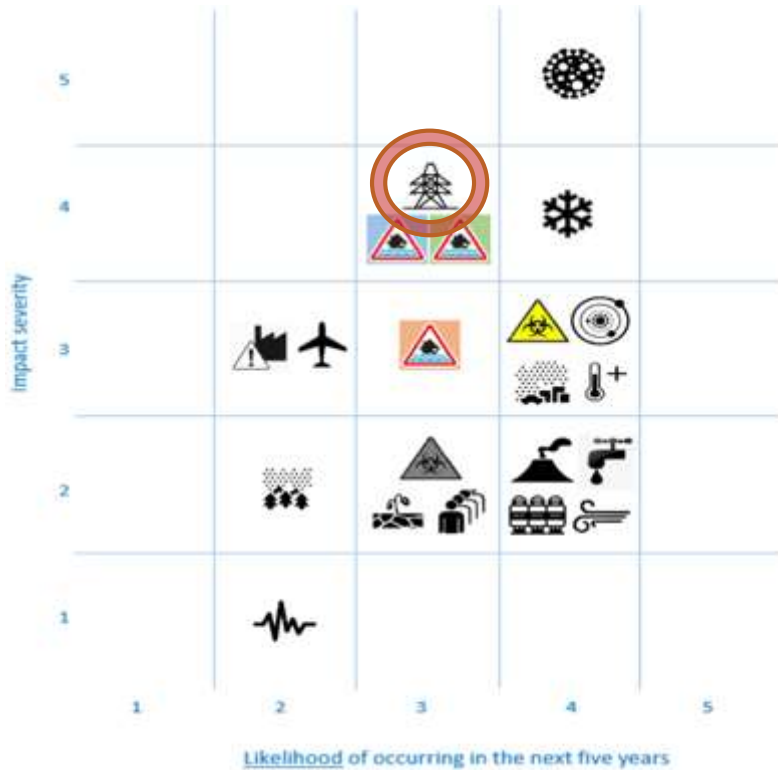


GROUPS OF SCENARIOS – RANGE OF APPROACHES

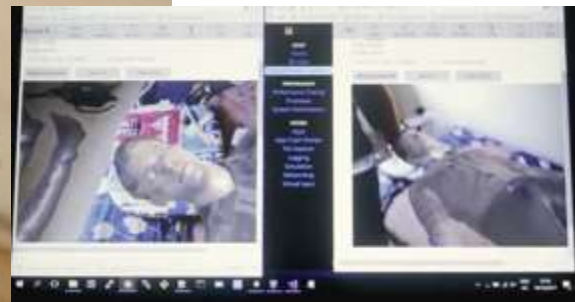
- Tactical
 - Firearms
 - Territorial Policing
 - CBRN Forensics
- Multiple levels
 - Road Traffic Collision
- Strategic
 - Civil Unrest
 - Cyber



THE SCARY ONE – TC3 CYBER



THE OTHER SCARY ONE – TC1 CBRN



PROCESS WITHIN TARGET

- Define the requirements with end users
 - Develop trial systems and content
 - Deliver trial exercise
 - Review
 - Repeat
-
- We have now just completed the second set of trials
 - Significant improvement on first version
 - Now onto final revision – TRL6-7 only



WHAT HAVE WE LEARNT – THE GOOD?

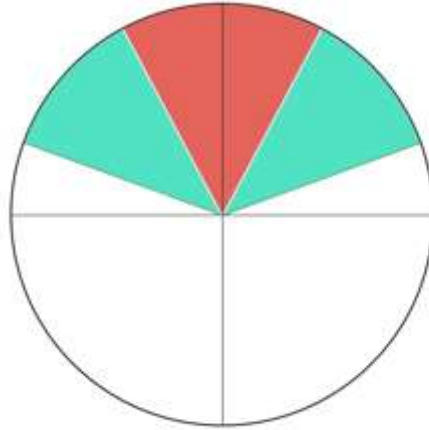
- Good applicability of the technology
 - Reduces the need for a specific environment
 - Can be very good
 - Cost effective
 - Easy to deploy
 - Engaging
 - Can be instrumented



WHAT HAVE WE LEARNT – THE BAD?

■ Main issues

- Field of view poor
- Limit on close view
- Tracking a problem
- Maturity of tools
- Maturity of platform
- Expectations



Human FOV
135°

Hololens FOV
30°



Minimum distance from objects
85cm



QUESTIONS?

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