



# OVERVIEW OF VERSION 1 TRAINING CASE SCENARIOS

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German Police University (DHPOL)  
Ministerio del Interior - Guardia Civil (GUCI)

## TRAINING AUGMENTED REALITY GENERALISED ENVIRONMENT TOOLKIT

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## INTRODUCTION

The deliverable documents for each scenario “Scenario & Specification for V1 of TC1-TC6”, provides a basis for TC development within the TARGET mixed reality platform from the perspective of the end user leads for each scenario. It creates preconditions for the further development of the system and aims of the project.

The scenarios and specifications were developed using information from end users in each user organisation in the consortium and represent the following European member states: United Kingdom, France, Spain, Estonia, Slovakia and Germany. All ethical issues were respected and approved by the TARGET Ethical Advisor, Prof. Dr. J. Peter Burgess. The sub-contractor HUMALAB APEKO provided input to ISEMI, WP6 leader, in many practical aspects with regards to right definition of roles of each key player in a virtual or mixed reality platform and regularly provided relevant feedback in order to get realistic and useful training tool basis for further development. Regular communication between sub-contractor, WP6 leader ISEMI and end users was based on Skype and phone calls, physical meetings and email communication.

The needs assessment provided within these deliverables reflects the real needs of end users from police agencies, police and security science universities, fire departments, and CBRN departments. Each training case scenario intends to use a combination of MRT, VRT and RLT simulations. They will be usable for teams as well as for individuals and is set in the environment of all three command levels:

- ⊕ **Strategic Command (Gold)** – Remote from the scene of the incident, formed to consider wider issues and provide support for the on-scene incident command. Strategic commanders are in overall control of his or her organisation's resources at the incident. This person must have the

## EXECUTIVE SUMMARY

This document provides a summary of the 6 Training Content scenarios that will be developed within TARGET. The objective of WP6 is to develop a range of six dedicated TC for a broad range of needs, responding to specific major identified issues as well as assess and trial the TARGET Platform.

The Training Content and Scenario Specifications were written by the user partners to start the dialogue with the technical partners in TARGET, in view of collecting their detailed feedback in terms of technical choices, feasibility and cost. This choice was deliberately made by the consortium to ensure that user requirements would be expressed without a technical bias. It is hence anticipated that these requirements will go through further iterations to reach a version which can then be implemented in V1 of the TARGET Platform, which in return is to deepen the understanding of the users both regarding the possibilities but also the limitations of the TARGET Technology. The experience with the development and trialing of this Training Content is then going to further evolve in the second iteration of the TARGET project.

authority to commit the organisations resources and finances without reference to another person. This person will not be on site, but at a distant control room, where they and their support team will formulate the strategy for dealing with the incident as a whole, considering both onsite and offsite issues. If strategic commanders for various organisations at an incident are not remotely co-located, they should be in constant communication with each other.

- ⊕ **Tactical Command (Silver)** – Command of the scene of the event, but remote from the action, providing resources, support and decision making for the operational elements. Tactical commanders are those who manage tactical implementation of current organisational policy or the strategic direction given by Gold for the particular event and makes it into sets of Priorities and actions that are implemented by Bronze. Depending on the organisation, *they may or may not be at scene*; however this is a dynamic decision. Organisations make their own decisions whether Silver is at the scene or remote, but should be encouraged to attend to facilitate multi-agency tactical management of the incident. This could be located in a command vehicle at or near the scene or a remote building such as the police HQ. This role is often not strictly rank-related but does often fall to more senior officers.
- ⊕ **Operational Command (Bronze)** – Doing the job, setting of tasks and detail decision making, commanding of functional units. An operational commander directly controls an organisation's resources at the incident and will be found with their staff working directly at the scene of the incident. If an incident is widespread geographically, different Operational commanders may assume responsibility for different locations. If the incident is of a complex nature, as is often the case, different operational commanders are given specific functional or geographic tasks or responsibilities at the incident. Specialist functions such as HAZMAT and SAFETY will have dedicated Bronze level officers.

The scenario & specifications for each training scenario will help technical partners define the main basis for serious gaming platform.

## TC1 MAJOR HAZMAT / CBRN EVENT – COMMAND POST / OPERATIONAL

### International Security and Emergency Management Institute (ISEMI)

TC1 focuses on a major HAZMAT (Hazardous Materials) / CBRN Incident. The target group exercises are the commanders at various levels of intervention management:

- ⊞ HAZMAT/CBRN event due to an terrorist attack on an industrial facility (R + C agents identified)
- ⊞ House search in illegal terrorist chemical laboratory (R + C agents identified)
- ⊞ Tactical Commanders at the crime scene's headquarters



- ⊞ Train tactical and operational staff
- ⊞ Develop skills of commanders at tactical level of intervention management
- ⊞ Observation and evaluation of threats:
  - Marking of the Security zone
  - Detection
  - Extraction
  - Handling of CBRN materials/hazardous materials
- ⊞ Crime Scene Management

## TC2 PROTECTING A CRITICAL INFRASTRUCTURE AND DEALING WITH CROWDS DURING MASS DEMONSTRATIONS – COMMAND POST

### Fachhochschule der Polizei des Landes Brandenburg (FHPOLBB)

Refugees from Africa, the Middle East and the Western Balkans have been coming to central Europe in waves for almost three years. Most of the refugees come from war and crisis stricken countries like Iraq, Syria, Sudan or Libya. The population in Germany is worried about “foreign infiltration” and that refugees only come for economic reasons taking away their jobs and benefiting from social services. Extreme right-wing parties and organisations benefit from such anti-immigration attitudes and use this to increase the number of party members.

An alliance of these anti-immigration groups announced a public gathering in front of the terminal building of the Berlin-Brandenburg Airport in Berlin-Schönefeld. The organisers expect several thousand attendees. The aim of this demonstration is to speak up against the entry of further refugees and asylum seekers to Germany. Once this information became public an alliance of pro-immigration groups and politicians announced another public gathering also on site in front of the terminal building.

This training scenario is aimed at preparing police officers as members of command post bodies for large scale police operations to deal with crowd control and protection of a critical infrastructure.

The target group for this exercise will be Commanders and Command and Control Personnel at a tactical as well as strategic level.



- ⊕ Command Post Exercise with a duration of 3 hours, to train senior command officers
- ⊕ Review of organisational structure and effectiveness
- ⊕ Protect critical infrastructures
- ⊕ Management of crowds during mass demonstrations

## TC3 RESPONSE TO MASSIVE CYBER-ATTACK – POWER GRID – COMMAND POST

### Cleveland Fire Brigade (CFB)

The exercise is targeted at the Strategic and Tactical Command levels and is based in a joint operations / emergency operations centre environment. The emphasis is not in combatting any attack technicalities, but in the response and recovery operations necessary to combat a sustained power outage.



The focus of the scenario will allow the demonstration and evaluation of the strategic command staff in their reactions to limit the impact of the cyber-attack on the general public:

- ⊕ Command decisions
- ⊕ Appropriate deployment of assets
- ⊕ Reactions to the collapse of Distribution Networks
- ⊕ Management of medium and long term aftermath
- ⊕ Management of media injects and public response
- ⊕ Resilience and adaptability of trainee to changes in the scenario, and stress injects

## TC4 USING PERSONAL FIRE ARMS IN SMALL TACTICAL VIGNETTES— OPERATIONAL STAFF TRAINING FOR RULES OF ENGAGEMENT AND FIRE ARMS HANDLING

Institut de Seguretat Pública de Catalunya (ISPC)

Ministerio del Interior - Guardia Civil (GUCI)

A police patrol composed by two police officers are deployed by the Police Station Control Post to a building where there is a person injured in the entrance.

Upon arrival they can see a watchman who has been attacked by two or three offenders, he is not sure. This man can give some information to the police officers if they ask. The police officers have to decide what to do. If they enter inside the building, they will find victims and / or offenders in different offices with whom the police officers will have to interact. Shooting or not shooting and the way to do it will be the most important decision they will have to make. When the situation is escalating one offender can take a victim as a hostage. The police patrol will then make the decision as to whether SWAT will be required.



A police patrol composed of two police officers enter and progress through a building:

- ⊕ Multiple Offenders within the building
- ⊕ Environment split into separate areas
- ⊕ Situations escalate as the scenario progresses
- ⊕ Decision making: Shoot or Not Shoot
- ⊕ Rules of Engagement
- ⊕ SWAT required for final situation if there are hostages

## TC5 ARREST OF SUSPECTS AFTER THEIR CAR CRASH

### Ecole Nationale Supérieure de Police (ENSP)

Two policemen are in a patrol car, they are overtaken by a fast moving car, the suspects' car turns (the vehicle registration number is visible). There is a passenger in front, but impossible to distinguish anything about him. The car then crashes in front of the patrol vehicle. The driver collapses, but the policemen observe movement on passenger side. After a few seconds the passenger opens the door and exits the vehicle. From here there will be multiple situations whereby the trainees are asked to assess the threat and neutralise suspects, dependent on the environment and respecting the rules of engagement:

- ⊕ Suspects have several behaviours. They can hold different weapons.



Several requirements of the TARGET platform have been identified within the document, as to provide the required level of impact to the training scenario:

- ⊕ Educational and training objectives
- ⊕ Required realism of the situation, and reactions of simulated personnel as to gauge the trainees' reactions
- ⊕ Ethical and social issues
- ⊕ Stress injects



## TC6 DEALING WITH A MAJOR ROAD ACCIDENT INVOLVING MULTIPLE CARS AND VICTIMS AND HIGH RISK OF EXPLOSION

### German Police University (DHPOL)

***“Multiple collisions on the A31, about 51 cars and more than 100 injured persons are involved”.***

The scenario setting is a rural area. The accident is caused by a rear-end-collision of two cars due to heavy fog. 50 cars, a minivan with 15 children and a tanker truck, loaded with more than 30.000 litres of petrol / flammable liquids, are involved. There is a high risk of explosion.

The Trainees will have to build up an efficient management of organisational and management structure in a defined time of 4.5 hours.

Task of the head of operations on site and the staff-team is to manage the organisational and communicational structure - phase 2 - in the case of a mass casualty incident. The students have to train and reflect their own ability to lead and to communicate, and will have the possibility to run the scenario from two perspectives. On this occasion the scenario will consist of two main components:

- ⊞ The head of the operations on site and his leading team (tactical level)
- ⊞ Commanding officer of the planning staff (strategic level)



The objective of the training is to:

- ⊞ Provide a realistic training situation
- ⊞ Encourage confidence building in large scale operations

## CONCLUSIONS

Developing training materials is not a simple process, especially when expectations are high. One of the TARGET project objectives is to develop 6 specialized training contents. These TCs will run under highly innovative conditions. There are a lot of things, issues and approaches which are new for end user organisations. That is why the TCs will be prepared very carefully. Development processes have to be assessed from all possible sides and aspects. Every incorporated detail must be thought out and discussed many times. Timeline of the story in a scenario must be real but must allow sufficient time for decision-making.

Each TC leader has paid attention to all aspects of the work (security, multi-agency cooperation, and currently existing trainings standards, ethical and societal questions) and have taken into account all the needs defined in the needs assessment. The scenarios were prepared from the end user point of view and based on end user needs.

These first versions present basic specifications for each scenario and will be improved upon and finalized in future iterations throughout the project.

## GLOSSARY

Abbreviation / Acronym	Meaning
<b>EOD</b>	Explosive Ordnance Disposal
<b>CBRN</b>	Chemical, biological, radioactive, nuclear
<b>MRT</b>	Mixed Reality Training
<b>RLT</b>	Real Life Training
<b>SWAT</b>	Special Weapons and Tactics
<b>TC</b>	Training content
<b>VRT</b>	Virtual Reality Training
<b>WP</b>	Work Package (of the project TARGET)