

LAW-GAME: An Overview

**ELEVATING EXPERIENTIAL TRAINING
THROUGH GAMIFICATION TECHNOLOGIES**

Project Facts

- Full title: *An Interactive, Collaborative Digital Gamification Approach to Effective Experiential Training and Prediction of Criminal Actions*
- Duration: 36 months, starting from 01.09.2021
- Budget: €7M
- Consortium: 19 partners from 11 European countries
- Demonstrations: in four European test sites
- Work Programme: Horizon 2020
- GA No: 101021714



Main Goal



LAW-GAME aims to **train Law Enforcement Agencies** and **first responders** on the procedures to be followed during **crime scene investigation** and **illegal acts prediction**.



OBJECTIVES

Objective 1



Create fully immersive 3D virtual environments for training.

How?

- ✓ Incident Scene 3D Modeller;
- ✓ Visual Inspection at the Incident Scene;
- ✓ Semantic mapping & analysis;
- ✓ Cloud-based System for Social VR Learning Experience.

Objective 2

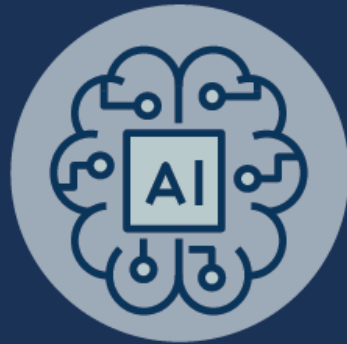


Create a complete gamified training system for LEAs.

How?

- ✓ User-Centered Game Design;
- ✓ Intuitive virtual-reality game authoring tool;
- ✓ Fully configurable game engine;
- ✓ Attractive “mini games” based on real training scenarios.

Objective 3



Build an interactive gaming experience.

How?

- ✓ Real-time emotion recognition and classification system;
- ✓ AI engine;
- ✓ AI Conversational Dialogue Generation & Interactive Storytelling System.

Objective 4



Design and develop a novel terrorist attack prevention, analysis & training framework based on serious gaming.

How?

- ✓ Machine Learning & Predictive Analytics Algorithms for Identification of Terroristic Related Indicators;
- ✓ Terrorist attack bots;
- ✓ Explainable Artificial Intelligence (XAI) models.

Objective 5



Provide a comprehensive framework to measure training effectiveness.

How?

- ✓ Training Assessment Framework;
- ✓ Real time summative feedback;
- ✓ After-action review on the training outcome.

Objective 6



Build a secure environment that will provide data resources, simulation tools, expert access, and unique collaboration capabilities.

How?

- ✓ Integrated Training Platform;
- ✓ Blockchain-based system;
- ✓ Unified framework of security mechanisms;
- ✓ Personal data secure processing.



SOLUTIONS

A COMPLETE TRAINING SYSTEM FOR LEAs

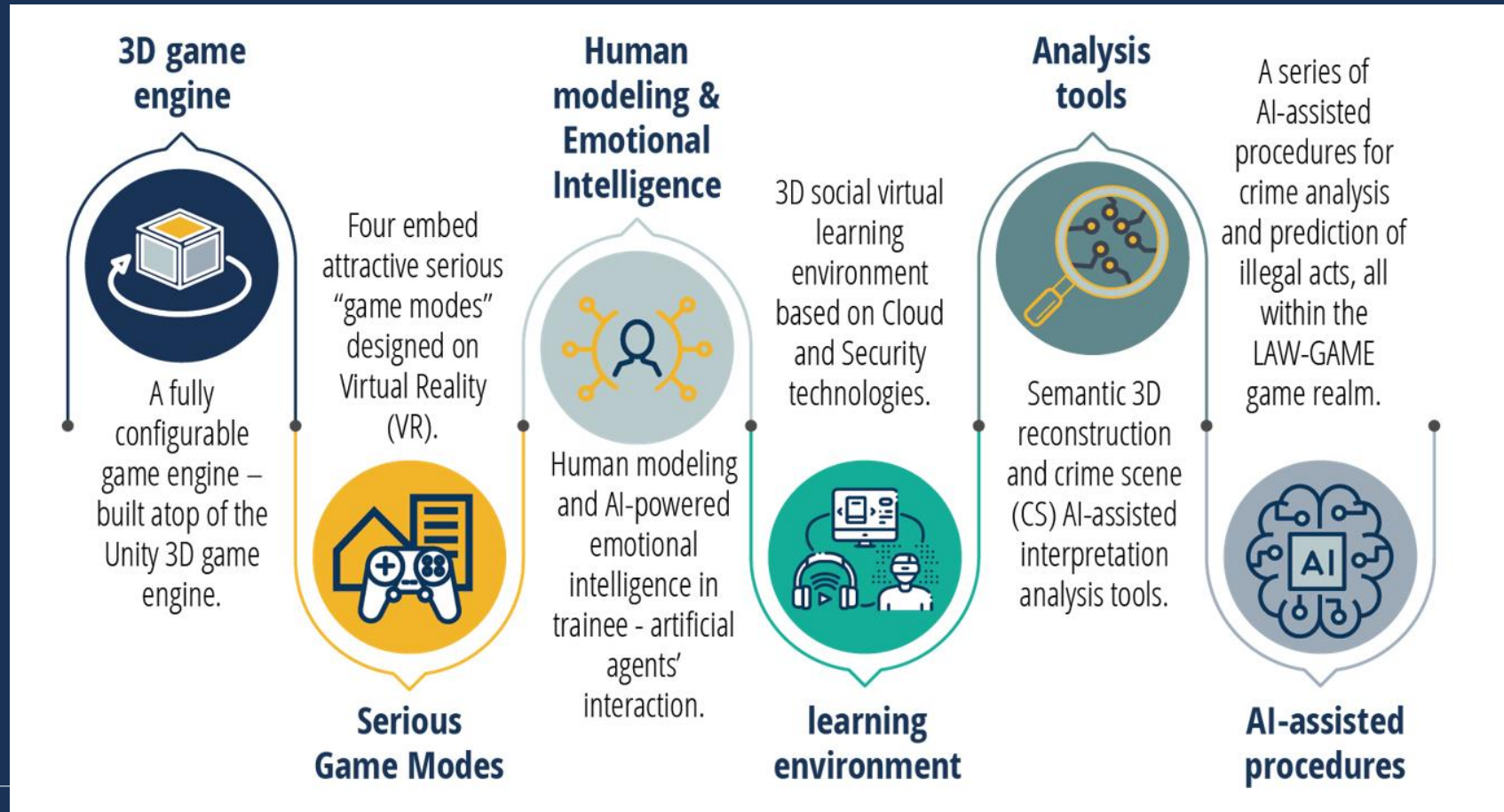
Training System

Complete **gamified training system** for LEAs to assist them in developing core competencies needed for crime scene investigation & illegal acts prediction.

*Using latest advances in **Virtual Reality, Gaming, Artificial Intelligence, Human Modelling, Emotional Intelligence in Human-Artificial Agent Interaction, Social & Secure Cloud Systems.***



Main components



Serious Game Modes

Four highly immersive & attractive “**Game Modes**”, aiming to train police officers and measure their proficiency in:

- ✓ *Forensic examination;*
- ✓ *Effective Questioning;*
- ✓ *Recognizing & Mitigating potential terrorist attacks;*
- ✓ *Car Accident Investigation.*





PILOTS

REAL LIFE SIMULATION ON 4 FOCUS AREAS

Forensic Examination

CRIME SCENE INVESTIGATION GAMES

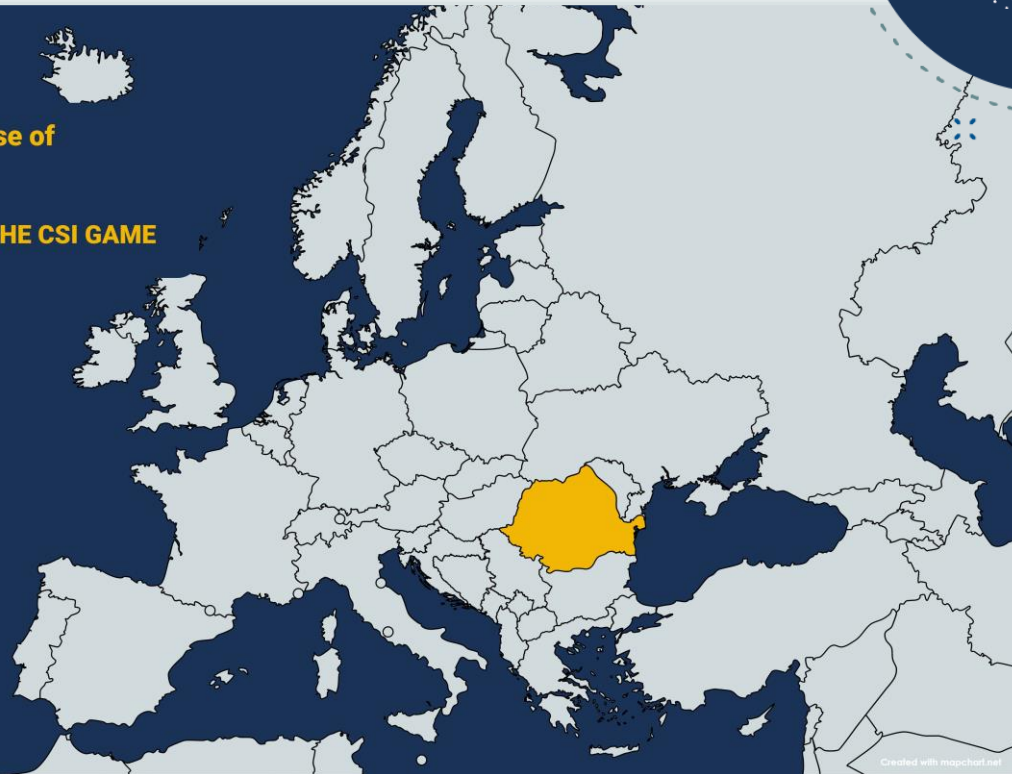


Bucharest, Romania



**LAW-GAME Pilot Case of
Romania**

■ **PILOT CASE 1 – THE CSI GAME**



Interrogation and Negotiation

POLICE INTERVIEW GAME

 Athens, Greece

**LAW-GAME Pilot Case of
Greece**

 **PILOT CASE 2 – THE POLICE
INTERVIEW GAME**



Intelligence Analysis and Prediction of Terrorist Acts

TERRORIST ATTACK PREVENTION GAME



Basque Country, Spain

LAW-GAME Pilot Case of Spain




PILOT CASE 3 – THE TERRORIST
ATTACK GAME



Vehicle Dynamics and Car Accident Analysis

CAR ACCIDENT SCENE INVESTIGATION GAME

 Klaipeda, Lithuania

**LAW-GAME Pilot Case of
Lithuania**

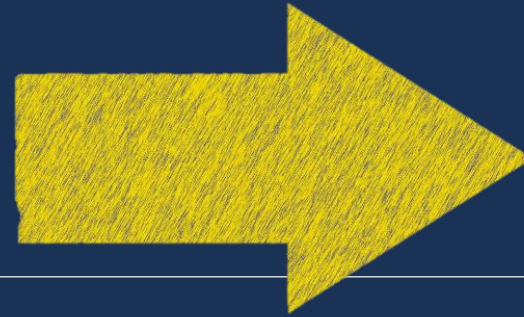
 **PILOT CASE 4 – CAR ACCIDENT
GAME**





EXPECTED IMPACT

Expected Impact



1

Develop a complete, mobile platform for a **highly realistic & immersive training** of LEAs & first responders on complex situations using simulations in mixed-reality environments.

2

Strongly **complement EC investment** in security technology.

3

Building preparedness & improving societal capacity

Thoroughly train LEAs & crisis management personnel in accordance with the requirements of their specific role.

4

Improve investigation capabilities of LEAs & first responders' personnel:

Facilitating the shift from "**frontal teaching**" to "**active learning**".

Increase quality/ speed of investigation capabilities



PROJECT CONSORTIUM

19 PARTNERS FROM 11 COUNTRIES

Consortium



The element of **success.**



Innov-acts



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THANK YOU!

ANY QUESTIONS?

Name of presenter

Role in the project

Affiliation

Contact details

This project has received funding from the European Union's Horizon 2020 research and innovation programme under GA No 101021714.