1. Company name / Contact person (phone number, email).

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2. Product / service name.

Virtual Sentinel of Gdynia Harbour - complete system for planning and rehearsing rescue operations for Gdynia Harbour Fire Department.

3. Description of product / service functionality.

APPLICATION:
- Tool utilized for planning and visualization of conducting rescue operations.
- Training device with virtual evaluation platform.
- Potential for real time distributed training with remote training units thru encrypted internet protocol.

APPLICATION SCOPE:
1. Virtual Reality including highly detailed 3D models of all buildings that exist within Gdynia Harbour (Combined with application of the infrastructure into VBS4).
2. Dedicated 3D content for simulation:
    a. FIREMAN
    b. ANY GIVEN ELEMENT OF FIREMAN's INVENTORY
    c. SELECTED VEHICLE
3. Two interactive scenarios of rescue operation.

   One of the rescue operation scenarios is to simulate terrorist attack. The training is adjusted to be integrated with assisting services (online).
   The simulation system has to be tailored to be coherent to exchange data with different branches of the Military Services (Air / Land / Naval / SOF).
   The scenario will force the urge of cooperation and combined actions of the Fire Department with Polish Armed Forces.

The Virtual reality environment will additionally be adapted to support any market available VR headset..

4. The type of satisfaction of the needs of the target group and its definition.

Aim of this project is to implement a training system adhered to the latest world wide recognized simulation standards.

Integrated system allows:
- Multispectrum security analysis.
- Simulation of rescue operations.
- Fire Department personnel training.
- Evaluation of the firefighters.
- Data collection and analysis.

During the project the cooperation with other government agencies will be established. The purpose of that will be to validate the need of such cooperation and exchange of experience and common practices.

The created content can also be utilized for purposes other than training of services.

5. Indication of innovative features of the product / service solution.

The product is based on a Virtual Reality environment called Virtual Battle Space 4. It is the latest version of one of the most popular simulation environment commonly used by many NATO members.

The system will be compliant with distributed simulation intergation standards such as DIS / HLA. During the implementation phase of the project the integration with Polish government agencies existing simulators and trainers will occur.

Whilst the project will be developed we will analyse the need for Unmanned Systems with a highly developed autonomous level of AI implemented into the Virtual Environment. The implementations, analyse and evaluation will be based on the assumptions covered in the paper:
"Taktyka pracy w roju oraz jej implementacja w środowiskach wirtualnej rzeczywistości"
being a part of research:
"Wykorzystanie bezzałogowych platform powietrznych w operacjach na rzecz bezpieczeństwa publicznego " [str. 153], które wydało "Centrum Naukowo-Badawcze Ochrony Przeciwpożarowej im. Józefa Tuliszkowskiego – Państwowy Instytut Badawczy" w 2019 r.
Available to download at: https://bit.ly/3pUTdIN