Pre-Operational Validation (POV) Project for Land Borders

Early Warning for Increased Situational Awareness

EWISA

1st SEREN3 Training for stakeholders on PCP/PPI in Secure Societies

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EWISA Objectives

• EWISA aims to promote further cooperation between (the participating and other) public authorities in National and EU Level (FRONTEX) in charge of the surveillance of selected portions of the external EU land borders, to improve the quality and efficiency of their services (as related to security).

• The Commission identified Pre-Operational Validation (POV) guided by potential end-users scheme as a way to promote innovation. In POV a tangible assessment of the performance levels offered by innovative technologies in a realistic user-defined operational scenario, where a tradeoff between efficiency, effectiveness and cost can be aligned with actual needs.
EWISA Concept

EWISA concept is based on the development of an integrated and unified tool with a scope to improve the overall Situational Awareness in the EU External Land Borders.

The EWISA concept is based on Data Fusion technologies from heterogeneous sensors, including Video Analytics with a scope to generate enhanced Intelligent Analysis Reports.

Legacy Systems and Supporting Surveillance Equipment will be integrated in the core system.
EWISA Core System

Video Analytics

Level 1 Motion Detection  
Level 2 Recognition/Classification  
Level 3 Identification  
Level 4&5 Understanding & Knowledge Creation

Metadata Sources
(Cameras, Encoders, Clips, Images)

VA Setup

Other Sensors and Systems

Data Fusion

Metadata Fusion

Real-Time Multi Sensors Data Correlation  
(Rule and Workflow Engines)

Metadata DB

Analysis Models and Search Engines  
(profiling, abnormality, prediction)

Intelligence Analysis Reporting

Metadata
Object Signature  
Features Extraction  
Detection Alerts
The following technologies will be developed in both solutions:
- Video Analytics Component (VAC), Centralized – Decentralized and;
- Data Fusion - Intelligence Analysis Reporting.

The following Legacy Systems will be integrated in both solutions:
- Day and thermal cameras
  - Fixed
  - Mobile (ground-based)
  - UAV-mounted
- RADARs
- Video Management systems
The following platforms and sensors will be integrated under the EWISA Core System in different configurations in each solution, to support the EWISA proof of concept:

**SOLUTION 1**
- One (1) Land Vehicle with EO/IR/SWIR/RF*/SL*/LP* for six (6) months.
- Two (2) Low Emission Radars for six (6) months.
- Two (2) ESM for six (6) months.
- One (1) Fiber Optics system for three (3) months.

**SOLUTION 2**
- One (1) Boat with EO/IR/SWIR/RF* for six (6) months.
- One (1) Aerostat with EO/IR/SL*/LP* for three (3) months.
- One (1) Low Emission Radar for six (6) months.
- One (1) ESM for six (6) months.
- One (1) Fiber Optics system for three (3) months.

* RF stands for Rangefinder, SL for Spot Light and LP for Laser Pointer.
Both EWISA solutions are going to be tested in four diverse Geographical areas of EU external land borders in a real operational environment, based on well-defined scenarios, representing the EU external borders environment and concept of operation, as follows:

- **Greece**: Surveillance of North area of Evros River in open and semi-open areas along with BCP point and the fence in Nea Vissa, on the borders with Turkey;
- **Finland**: Surveillance of border line with Russia, represented by uneven or rough land border openings combined with surveillance of border zone boundary in a forest area;
- **Spain**: Surveillance of the border line in Melilla area (Spanish territory) with Morocco;
- **Romania**: Surveillance of unauthorized border crossing in the Border line with Serbia.
SCENARIOS & test location no 1

GREECE

- ORESTIADA
- GREEK-TURKISH BORDER
- BORDER RUNS MAINLY ALONG EVROS RIVER
- 12 KILOMETRES OF GREEN BORDER, FENCED
- ONE BCP (KASTANIES)
- AGRICULTURAL LAND, HILLS, FORESTS, RIVER WITH VARIATION IN DEPTH AND FLOW
SCENARIOS
& test location no 2

FINLAND

• IMATRA AREA, SOUTH-EAST FINLAND
• FINNISH-RUSSIAN GREEN BORDER
• FENCE ON THE FINNISH SIDE BUT ONLY 160 CM HIGH. (FOR DOMESTIC ANIMALS MAINLY)
• A MAJOR BCP, RAILROAD, TWO CITIES (IMATRA AND SVETOGORSK) WITHIN FEW KILOMETRES
• FOREST AREA WITH OCCASIONAL AGRICULTURAL LAND CLOSE TO THE BORDER
SPAIN

- MELILLA AREA, NORTHERN AFRICA
- SPANISH-MOROCCAN GREEN BORDER
- SURROUNDED BY FENCES
- OPEN, HILLY TERRAIN WITH (DRY) RIVERBEDS
SCENARIOS
& test location no 4

ROMANIA

• Stamora- Moravita AREA
• RO-SRB  GREEN and BLUE BORDER BETWEEN BCP’S
• SURVEILLANCE OF RAILWAY CROSSING THE  BORDER
• SURVEILLANCE OF DANUBE RIVER AREA
• OPEN TERRAIN WITH HILLS AND BATCHES OF FORESTS
POV EWISA Phases

Step 1: Definition Phase (CSA) 2014-2016
- Need Analysis Document
- Validation Strategy Document
- Joint POV call for Tender

Step 2: Execution Phase (CP) 2017-2018
- Two Separate Solutions by Industry (Procurement)
- Development testing
- Implementation

Step 3: Ex-Post assessment Phase (CSA) 2018
- Joint Validation and Conclusion

Partners - Public Authorities
Center for Security Studies (KEMEA)
Guardia Civil / ISDEFE
Finnish Border Guards
Romanian Border Police

Solution 1
Industry I

Solution 2
Industry II

Partners - Public Authorities
Two independent solutions with separate contracts will be **issuing through public procurement tenders**, designed to identify and place the best and most suitable equipment ensuring transparency and equal terms for the participating industries.

The maximum budget for each solution is **2,717,000 € (excluding VAT)**.
The aim is to obtain two different technical solutions as described in the previous slides (solution 1 and solution 2) which will be implemented, tested and evaluated in the four areas of the project (Greece, Finland, Romania, Spain).

Each economic operator may submit a tender for either one or both solutions (solution 1 and solution 2), however in the latter case the procurer can be awarded only one contract (for either solution 1 or solution 2).
EWISA Preliminary Plan Solution Testing and Demonstration

GREECE
M1-3 SOLUTION 1
M4-6 SOLUTION 2

FINLAND
M1-3 SOLUTION 1
M4-6 SOLUTION 2

SPAIN
M1-3 SOLUTION 2
M4-6 SOLUTION 1

ROMANIA
M1-3 SOLUTION 2
M4-6 SOLUTION 1
On the basis of article 14 of Directive 2014/24 and Article 13 of Directive 2009/81, the tender falls outside the scope of application of the directives. In this regard and in order to ensure the maximum transparency and competition of tender, EWISA consortium chose to adopt the following basic principles:

• Compliance with all general principles of EU public procurement law, mainly the principle of transparency, equal treatment, non-discrimination, proportionality, protection of free and undistorted competition;

• Adoption of a restricted procedure, designed according to the principles of Directive 2014/24 (article 28).
• **Maximization of the publicity of the contract** by advertising it in the Official Journal of the European Union, with the concrete remark that the tender is not falling within the scope of application of the Directive 2014/24.

• **Exception of the tender from the scope of application of national relevant legislation** on the basis of article 14 of Law 4412/2016 (OJ A 147) and article 17 of Law 3978/2011 (OJ A 137).
• **Official Journal of European Union, with the** concrete remark that the tender is not following the scope of application of directive 2014/24.

• **EWISA web site**

• **All partners web sites**

• **EWISA Information Event, which took place on 8-9 November 2016 in Athens, and was announced in:**
  - **EC web site**
  - **EOS (European Organization for Security)**
  - **EWISA web Site**
  - **KEMEA web Site**
  - **EC NCPs through Greece NCP (PRAXI)**
The Official Language of the Tender is ENGLISH.

- Requests to Participate and Tenders must be written in English only.
- All relevant documentation requested in this tender, to be provided by an Economic Operator must be officially translated in English.
- Deliverables must be written in English only.
- Communication (relating to either the tender procedure or the implementation of the contract) must be carried out in English only.
The following Contracting Bodies is involved in the Tender Process:

- Contracting Authority - KEMEA
- Contracting Board (CB) – EWISA Partners
- Technical Board (TB) – EWISA Partners
- KEMEA -EWISA Procurement Board
In order not to disclose sensitive information openly and to select the most experienced candidates, in EWISA tender the restricted procedure is used, as described in article 28 of directive 2014/24. Therefore, the tendering process will be conducted in two steps:

• STEP 1 (Tenderers’ Solvency – Qualitative selection);
• STEP 2 (Financial and Technical evaluation – Award of the contracts).
Tentative Timeline

STEP 1: Requests to Participate 30 days
STEP 1: Qualitative Selection 20 days
STEP 2: Submission of Tenders 30 days
STEP 2: Economic and Technical Evaluation 45 days
Standstill Period 10 days
Contracts Award 10 days

Tentative timeline: One hundred Forty Five (145) days
Tender Procedure-Step 1

• A limited set of information is widely published. The ToR Public Version (not inclusive of sensitive information) contains enough information for the industry to understand the scope of the tender.

• In this first step, any economic operators may submit a request to participate containing all the information requested in the tender document. They will sign a Non-Disclosure Agreement for the information they are going to receive in Step 2.

• The Terms of Reference Public Version was published on 10 January 2017 on the EWISA web site (www.ewisa-project.eu/procurement).

• Moreover, the relevant contract notice was published on the Official Journal of European Union, with the concrete remark that the tender is not following the scope of application of directive 2014/24.
The following entities are entitled to participate in the tender:

- Natural persons residing in one of the following countries.
- Legal entities established under the law of the following countries and having their central administration or principal place of business or registered office (seat) in one of the following countries.
- Groups of economic operators of the above natural persons or legal entities, submitting a joint tender and residing in or being established in one of the following countries:
  - EU and EEA (European Economic Area) member states.
  - Countries with which the EU has signed Stabilization and Association Agreements (Switzerland).
  - FP7 Associated Countries.
Exclusion to Participate in EWISA Tender

Tenders will be excluded if they fall within one of the following categories, relating to the structure of groups of operators:

• Where a single economic operator or affiliated entity is participating within more than one group of economic operators or both as single tenderer and as a member of a group of economic operators.

• Where a single economic operator or affiliated entity has already participated as a subcontractor in EWISA WP1.
Economic operators shall:

- Be active in the domain of Information and Communication Technology.
- **Have successfully completed during the last three (3) years at least one contract in the field of Border Surveillance which amounts to at least 50% of the budget of each solution.**
- Make available the supporting surveillance equipment.
- Have an economic and financial capacity to complete the project, proven by the minimum requirements of either an average annual turnover during the past three (3) financial years at least twice the estimated contract value of each solution or by a bank certification on own funds at least twice the estimated contract value of each solution.
- Possess a quality assurance certificate like ISO 9000/9001 or equivalent and ISO/IEC/IEEE 15288:2015 or equivalent.
- **Possess a security clearance to handle EU Classified Information or have applied for such clearance.**
- Have fluent spoken and written communication in English (at least 3 of the team members).
• Clarifications related to ToR Public Version were requested by the economic operators in writing, at the following email address: ewisa@kemea-research.gr, by 20 January 2017.

• Q&A document were published anonymously on the EWISA web site, on 27 January 2017.

• Requests to participate shall be submitted by the Economic Operators no later than the 12:00 (Athens time) on 10 February 2017.
• Once the pre-selected economic operators have passed the solvency screening and have signed a Non-Disclosure Agreement, they will be sent the ToR Restricted Version requiring submission of tenders.

• This version will include in detail all the requirements and the specifications along with the technical and economic criteria that will be used to evaluate the tenders in order to extract the most economically advantageous tenders on a best price-quality ratio.
Financial and Technical Evaluation

$L_i = 80 \times (T_i / T_{\text{max}}) + 20 \times (F_{\text{min}}/F_i)$

where:

$T_{\text{max}}$ Technical Score of the Best Technical Tender

$T_i$ Technical Score of the Tender $i$

$F_{\text{min}}$ Lower Price of all Tenders

$F_i$ Price of the Tender $i$

$L_i$ Total Score of the Proposal $i$ rounded to two decimals places.
• Evaluation will be carried out by a panel of experts from KEMEA, FBG, GUCI and RBP

• Specific session of the CB members (at the latest, a month after the opening of the tenders)

• Unique and Joint evaluation report, based on consensus

• If a consensus is not reached, a second session shall be held 10 days afterwards with the scope of having a joint evaluation based on the \( \frac{3}{4} \) majority
• Possible complaints against any decision will be submitted to the Technical Board (TB) within 10 days of the notification.

• TB is responsible to evaluate the complaints and to submit its opinion to the CB for final decision.

• CB’s decisions may be reviewed at Greek civil courts.

• An arbitration clause will be provided.
Intellectual Property Rights

• Ownership rights of IPRs generated by a company during the POV contract (foreground knowledge) should be assigned to that company.

• The **public authorities** directly contributing to the POV Phase 2 (Execution Phase), and the institutions of the European Union, **shall be assigned a royalty free, permanent** (irrevocable), non-exclusive worldwide licence/s to use the EWISA solution (**relevant background and foreground** included) for internal use (**for non-commercial purposes**). The **number of licence/s granted will be at least 10**, not limited, up to the required number for the project to be delivered while their exact number remains to be defined in the ToR restricted version.
**Public Authorities Commitment**

- **Significant effort** by EC and Public Authorities is required to bring success to a POV-PCP project. The effort required is much larger for a PCP-POV project than for a collaborative R&D project; IPRs rights definition;
- In this sense, public research agencies which are linked with the end users, like **KEMEA** takes-on a critical and advanced role in carrying out the very demanding and complex tasks of PCP-POV projects;
- **Support at national level** is needed for public authorities taking part in PCP-POV projects and;
- Much more **commitment** is required than that of a "typical" participant in FP7;
Thank you for your attention!

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