

D8.10 VR Police Network for LEAs: Mission Statement and Implementation Plan



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Revisions based on EC Review

Section	Revisions
Executive summary	<ul style="list-style-type: none"> The summary has been rewritten to highlight the focus of the upcoming 6 months for the VR network, and to reflect the changes in the KPIs and their implementation
1. Introduction on the rationale, goals and scope of the SHOTPROS VR Police Network (DoA)	<ul style="list-style-type: none"> Table 2 has been updated and filled in An explanation of the difference between members of the network and contacts of the project has been added
2. Methodological approach and implementation for building the VR Police Network	<ul style="list-style-type: none"> The KPI framework has been revised The discussions and KPI surveys have been incorporated into this chapter The KPI financial viability has been updated to reflect that membership fees will be the basis of the business plan for the network, grants will be considered as add-on The scope for phase 2 (after the SHOTPROS project) of the network has been clarified
3. Outlines of the SHOTPROS VR Police Network	<ul style="list-style-type: none"> This chapter has shifted from a 'first outlines of the network' to a more general description due to the time that has passed since the first submission of the deliverable Community building has been improved to demonstrate how to evolve from a project with end users to a stand-alone network Community building activities have been described more detailed A section about the ecosystem and key players has been added to provide clarity about the network positioning A section about the website (including the member section) has been added
4. Action plan	<ul style="list-style-type: none"> This is a new chapter, highlighting the general action plan, the past activities and the detailed action plan for the coming 6 months The plan of action has been updated to outline the expected impact of all activities
5. Conclusion and way forward	<ul style="list-style-type: none"> The conclusion has been rewritten to reflect the changes that have been made and the next steps that were identified

List of Acronyms and Abbreviations

Acronym/ Abbreviation	Description
CEPOL	European Union Agency for Law Enforcement Training
CBRN	Chemical, biological, radiological and nuclear
DG ECHO	European Commission Directorate General Humanitarian Aid & Civil Protection
DoA	Description of the Action
DMA-SR	Decision-Making and Acting under Stress and in High-Risk
DM-TRAINET	Disaster Management Training Network
ENFAST	European Network of Fugitive Active Search Teams
ENLETS	European Network of Law Enforcement Technology Services
eNOTICE	European Network Of CBRN Training Centers
ENPPF	European Network for the Protection of Public Figures
ESG	European surveillance group
EUCPN	European Crime Prevention Network
EUM	End User Management
i-LEAD	Innovation – Law Enforcement Agency ‘s dialogue
KPI	Key Performance Indicator
LEA	Law Enforcement Agency
ILEA-Net	Innovation by Law Enforcement Agencies networking
MSE	Major Sporting Events
SME	Small and medium-sized enterprises
SOP	Standard operating procedures
TIG	Technology interest group
VR	Virtual Reality

Table of Contents

Executive Summary	9
1 Introduction on the rationale, goals and scope of the SHOTPROS VR Police Network (DoA).	10
1.1 <i>Goals and scope of Task 8.8. - "VR Police Network" for LEAs and Synergies with related Projects (DoA)</i> 10	
1.2 <i>Initial outlines on the VR Police Network in the SHOTPROS DoA</i>	12
1.2.1 Rationale for a SHOTPROS VR Police Network (DoA)	12
1.2.2 Goals, activities and KPIs of the SHOTPROS VR Police Network (DoA)	12
1.2.3 Expected impact of the SHOTPROS VR Police Network (DoA).....	13
1.2.4 Target member group of the SHOTPROS VR Police Network (DoA)	14
1.3 <i>Links to other tasks (DoA).</i>	14
1.4 <i>Structure of the Deliverable</i>	17
2 Methodological approach and implementation for building the VR Police Network	17
2.1 <i>KPI based framework</i>	18
2.1.1 Content.....	22
2.1.2 Style.....	25
2.1.3 Form	28
2.2 <i>Use of the KPI based framework and recruitment of members</i>	28
3 Outlines of the SHOTPROS VR Police Network	30
3.1 <i>Involving interested members and community building</i>	30
3.2 <i>The network website with member-section</i>	32
3.2.1 The public website	34
3.2.2 Member-section	35
3.3 <i>The ecosystem and key players</i>	36
4 Action plan	39
4.1 <i>Past activities</i>	41
4.2 <i>Detailed action plan for the next Steps</i>	41
5 Conclusions and way forward	49
6 References	50

List of Figures

Figure 1: Visual overview of linked tasks involving end user participation	17
Figure 2: The three main pillars to build a successful network (AETS, 2013)	19
Figure 3: Interdependence of Network's Content, Style and Form, it's Efficiency and Effectiveness (AETS, 2013)	20
Figure 4: Visual overview of all KPIs to build a successful network	21
Figure 5: two phases of the network	40

List of Tables

Table 1: the VR network as a communication and exploitation instrument (SHOTPROS DoA p. 28)	11
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Executive Summary

This deliverable describes the goals, scope, activities and target members of the SHOTPROS VR (Virtual Reality) Police Network as part of WP8 (Dissemination and Communication). The methodological KPI (Key Performance Indicators) framework is outlined and builds the basis for the establishment of a future self-sustainable network. The vision of the network, as described in the DoA (Description of Actions), was gradually elaborated during the project. This has been achieved by defining the KPIs about the mission, scope, goals, activities, members and geographical scopes as presented in chapter 2 of this document.

The network tagline is **“Drive the Police to the Future of VR”** and the vision follows these three key elements:

- Providing access to **new knowledge and future trends**
- Enable **exchange and communication**
- Experience the **future possibilities** of VR

The initial KPI framework was complemented by conducting strategic workshops with the SHOTPROS consortium and a survey that was answered by all partners. Based on those inputs, an action plan has been developed for the VR Police Network and is presented in chapter 4 focusses on three main KPIs:

- Financial viability
- Organisation of network activities
- Creation of partnerships

The KPIs ‘community building’ and ‘activities and research’ are strongly associated. The community of the network will partially be built on several activities and events. Workshops and discussions, VR trials, translations from research findings into white papers and factsheets for end user, etc., were identified as key elements. Additionally, the network utilises synergies with other projects and existing networks to organise collaborative activities. That contributes to the community building and the establishment / strengthening of strategic partnerships. A business plan and a business canvas model will be developed in Q2 2021.

The website www.vrandpolice.eu of the network will be launched and centralise all relevant information. Once the website is launched, a dedicated member-section will be added to enable interaction and knowledge exchange of the network members. The progress of the VR Police Network, the updated action plan and the website will be reported in D8.9 (M35).

1 Introduction on the rationale, goals and scope of the SHOTPROS VR Police Network (DoA).

In the introduction, the initial vision on the network is explained, as well as the desired orientations and expected impact, as expressed by the SHOTPROS project partners. This summary serves as reference for the consortium partners and as input for the discussions to build the network. As these statements express the opinions and visions during the proposal preparations in 2018, changes and refinements were made, taking into account ongoing policy orientations, recent societal concerns and most importantly, the needs and expectations of the LEA partners and future network members. The methodology to consider all relevant input to build the network step by step is explained in the following chapters.

Task 8.8 is described in the DoA as follows:

T8.8 Establish a "VR Police Network" for LEAs and Synergies with related Projects

„This task comprises two streams: First to establish a Europe-wide network with LEAs and training academies, and second, to foster synergies with related projects (e.g. LAW-TRAIN, eNOTICE, ILEAnet, i-LEAD, etc.) In a future step, the network will be broadened to non-European Police Forces.

The "VR Police Network" will include the LEAs from SHOTPROS and also involve LEAs from European Police Agencies which are not part of the project team. A platform will be established during the project that will be self-sustainable in order to continue beyond the duration of the project.

The activities and the additional members of the network will be planned in the first project year (D8.10) and a first meeting of the network is planned during a consortium meeting (year 2). The first official event and network meeting will be at the final conference in SHOTPROS (T8.9)."

1.1 Goals and scope of Task 8.8. - "VR Police Network" for LEAs and Synergies with related Projects (DoA)

A specific Task, 8.8, is dedicated to building a VR Police Network. The motivation for this task is to make sure that end user involvement in the SHOTPROS research and development tasks (Task 1.4) is not limited to ad hoc participation in single-occurrence activities but allows to detect opportunities for collaboration with other networks and organizations sharing the

same interests, concerns and goals; as well as to transform the task 1.4 end user databases into a community through the establishment of a VR Police Network. Both activities thus aim at ensuring long term benefits of the efforts undertaken during the project.

The **relational dimension** of network will thus automatically be built gradually in T1.4 through the end user involvement in the SHOTPROS activities. The General Database will provide for a basic list; only end users who confirm their interest could become network members. The partner leading both tasks, is VESTA, who act as end user manager.

The **content dimension** of the network (its content) aims to ensure communication, dissemination of the SHOTPROS results to and through the network members; as well as exploitation and further development of the SHOTPROS results.

Target Group	Expected Impact	Activities to achieve impact
<p>Practitioners and networks in the field of LEA training</p> <p>EU and national organisations focused on law enforcement training; European police and law enforcement academies; European Networks in the area of emergency management and training, such as eNOTICE, ILEAnet, ENLETS (European Network of Law Enforcement Technology Services), EFRIM (European Fire Responder Innovation Managers); Professional organisations such as IPA</p>	<ul style="list-style-type: none"> • Improved knowledge among EU Law Enforcement Agencies officers on training for Decision-making and Acting under stress and in high-risk situations • Exchange of experiences among EU Law Enforcement Agencies about human factors and social and societal aspects in the work of police officers • Toolkits for EU LEAs, validated against practitioners' needs and requirements to facilitate their daily operations 	<ul style="list-style-type: none"> • Printed Materials for end users • Development of a showcase and reaching out to other end user organisations throughout Europe • Advisory Board for sharing results, knowledge and inputs from LEAs outside the consortium • Organisation of a SHOTPROS conference for showcasing and (external) evaluation of the training framework • Establishing a "VR Police Network" for LEAs • Participation in fairs and exhibitions focused on law enforcement (e.g. MILIPOL, etc.) • Participation and presentation of the results in H2020 networks for law enforcement practitioners, such as ILEAnet and i-LEAD

Table 1: the VR network as a communication and exploitation instrument (SHOTPROS DoA p. 28)

1.2 Initial outlines on the VR Police Network in the SHOTPROS DoA

An initial vision on the rationale, scope and targeted added value of a SHOTPROS VR Police Network is described in the SHOTPROS Description of the Action (DoA). This sets the context for the scope of T8.8, which is specifically dedicated to the establishment of this network. The following paragraphs resume the basic framing from the DoA.

1.2.1 Rationale for a SHOTPROS VR Police Network (DoA)

During the SHOTPROS proposal preparation, a lack of strategy and knowledge of VR training in the fight against crime and terrorism was observed through interviews and workshops with European LEAs. This has been confirmed in several meetings and workshops with stakeholders (such as LEAs, security authorities, etc.) during the project. Therefore, plans and strategies how to close this gap in the topic of virtual reality and training have been elaborated and formed the action plan for the network (see chapter 4). The network aims to create a forum for knowledge exchange and to work on future strategies and mission statements.

1.2.2 Goals, activities and KPIs of the SHOTPROS VR Police Network (DoA)

The SHOTPROS VR Training Network goals, following from the DoA, are:

- providing a platform/forum to structurally connect LEAs across Europe.
- allowing a permanent forum to discuss, exchange and collaborate with peers in other EU member states.
- promoting and facilitating exchange of experiences, during as well as beyond the duration of the project.
- providing a future platform for Pan-European standardisation.

The ultimate long-term goal of all network initiatives and activities is to gain and transfer **knowledge** in the topic of "VR & Police" for a sustainable, efficient and effective fight against crime and terrorism.

It has been decided to establish a website, which serves as a platform with 1) public information about the network's topics and 2) a member-section to enable knowledge exchange between members. The website will be launched in Q2 2021 with the aim at being self-sustainable in order to continue beyond the duration of the project (see chapter 3).

The SHOTPROS VR Police Network's scope, following from the DoA, is:

The starting point of the network in terms of scope will be the topics of SHOTPROS "Training of DMA-SR in VR" - but there is clearly potential to enlarge the scope to more topics covered by VR training, as described in chapter 2.1. These topics will be addressed to the operational police staff and further to decision- and policy-makers.

Possible activities of the SHOTPROS VR Police Network, following from the DoA, are:

- exchange of **experiences** among LEAs about DMA strategies, as well as training methods and environments.
- creation and development of **policy-maker strategies** to integrate the outputs of SHOTPROS in future training plans of Europe-wide police agencies.
- transformation of the created academic knowledge from SHOTPROS to the needs and **language of the practitioners** through white papers, presentation and further content snippets.
- **transfer of knowledge**, framework, toolkits and **outputs** of SHOTPROS during and after the project into the members' national management and training academies to raise the awareness of the topic.
- **evaluation** and comparison of outputs from SHOTPROS and other European VR projects.
- expert **discussions** with the aim to create future scenarios and contexts for VR police training.
- (anonymised) **exchange of misconduct** in past operations and definition of best acting practices for these operations to be integrated as new (VR) scenarios in the DMA-SR Training.

The aim of the network's activities is to use the multiplier effect to maximise the societal impact of SHOTPROS, to promote the exchange of ideas and experiences, and to spread innovations, knowledge and developments in the context of VR training.

1.2.3 Expected impact of the SHOTPROS VR Police Network (DoA)

The network will provide a platform for pan-European standardisation and will thus contribute to the European security model. Furthermore, provisioning a standardised training in DMA-SR and a related training network across a large number of European countries, is also as such a societal benefit.

VR Police Network aims at a sustainable, efficient and effective fight against crime and terrorism and therefore raise its societal impact.

1.2.4 Target member group of the SHOTPROS VR Police Network (DoA)

The network will be composed of two streams. First, through a Europe-wide **recruitment** of law enforcement agencies and training academies, and second, to **foster synergies** with related projects (e.g. LAW-TRAIN, eNOTICE, ILEAnet and i-LEAD etc). In a future step the network will be broadened to non-European police forces.

The core members of the VR Police Network include the LEAs from SHOTPROS and also involve LEAs from European police agencies across Europe which are not part of the project. Moreover, the SHOTPROS work plan and networking activities will consider the gender, cultural and societal perspectives in establishing the project policies and programs, identifying specific and concrete actions in favour of all participants.

For a successful integration of SHOTPROS outputs in national policy strategies the support of the decision and policy makers in the European countries is required. These identified people should be addressed nationally from the members of the network.

The SHOTPROS network will seek to strengthen its position through the fostering of synergies with related projects, such as LAW-TRAIN, ILEAnet, i-LEAD, ENLETS, CEPOL, eNOTICE, etc.

By M18, SHOTPROS has gathered contacts that will be invited to join the network as official members in Q3 / Q4 2021. There are currently 150 contacts in the SHOTPROS database (see D1.4) including LEAs, university and researchers, training centers, members of national ministries, EU projects, police and forensic academies and CBRNE expertise centers. Most were gathered through the VR & Police webinar series (see D8.8), but also through the newsletter subscription, partners attending meetings /conferences (e.g. PiD – German police trainer association conference), and via the existing networks of consortium members.

1.3 Links to other tasks (DoA).

1.4 End user management (see D1.4) – LEA project partners, external LEAs and other stakeholders. The aim of T1.4 is to manage the involvement of the end user partners over the three project years and to ensure further activities after the project to guarantee a sustainable approach. VESTA, as end user manager, is responsible for managing the involvement of all end users and end user activities. This includes:

- The identification of end users;

- The management of end user databases;
- The planning and scheduling of end user involvement;
- The communication with end user partners;
- Ensuring their availability as required for the project schedule;
- Supporting end users with guidance and information, and doing quality controls;
- Fostering a good, productive relation and fruitful exchange with the end user groups.

The database of LEA end users and stakeholders, who express their interest in the SHOTPROS developments, either as participant in the project's research activities or interested in the results, will serve as a database for the future network members.

WP8 Dissemination, Communication and Exploitation: SHOTPROS focus on several complementary dissemination, communication and exploitation strategies, e.g. establish VR Police Network, (...) involving external LEAs through existing networks such as ILEAnet and i-LEAD relations from participating LEAs, research and business partners, etc.

The SHOTPROS research and development results (to be uptaken, further developed and updated through the network):

- Strategies and decision-making support for policy-makers concerning LEA DMA-SR training in the context of strategy goals;
- A demonstration tool to showcase the power of VR DMA-SR Training;
- A basic strategy and toolkit will be delivered by SHOTPROS as a result of the project. The toolkit will be developed further by the established "VR Police Network" for LEAs as a work in progress, reacting to current policy questions and issues and different situations in national or European contexts.

During the project, the network is thus to be considered as a dissemination instrument, which will evolve towards a self-sustainable entity after the end of the project.

T8.4 Strategies and Toolkit for Policy-Makers

SHOTPROS will provide strategies, decision-making support and a toolkit for policy-makers (D8.5, M36). The strategies are derived from the project results and take into consideration policy goals and identified policy questions and problem areas.

The toolkit compiles materials that are relevant to policy strategies and decisions, help policy-makers understand requirements of LEAs concerning training, and the pros and cons of (VR)

training methods and provide insights that can contribute to attain policy goals like improvement of security, perceived security, and image of the police. The toolkit is targeted at policy-makers on national and European level.

A basic strategy and toolkit will be delivered by SHOTPROS as a result of the project. The toolkit will be developed further by the VR training network as a work in progress, reacting to current policy questions and issues and different situations in national or European contexts.

T8.7 Reach-Out to other end user partners (Showcases)

This task includes the production of a demonstration tool (see D8.7, M28) to show the innovative approach and the advantages of the VR training environment and scenarios using the human factors-based training method. This demonstration tool will then be used to showcase the SHOTPROS environment to potential end users throughout Europe.

At the end of the project this demonstration tool will be the output of the integrated results of the SHOTPROS project. It lays within the goal of the network to gain and transfer knowledge about VR and Police topics. The network members will be invited to the showcases of the demonstration tool in order to achieve this goal.

T8.9 Conference for Showcasing and (external) Evaluation of the Training Framework

SHOTPROS will organise a final conference at the premises of VESTA for dissemination, exploitation, networking (see T8.8) and evaluation (see T7.4) purposes. The final conference is also targeted as the momentum to officially launch the (self-sustainable) network.

Research and Development tasks involving end user participation

All tasks involving the participation of end users in the SHOTPROS research and development activities management (fig. 1) will contribute to building a successful and sustainable network. This is valid for the tasks using end user participants to collect input – such as Task 2.2 end user workshops, for tasks that seek end user validation - such as Task 4.1 evaluation of training scenarios with end users, and for tasks that aim at both input and validation from the LEA participants – such as the WP7 Trials.

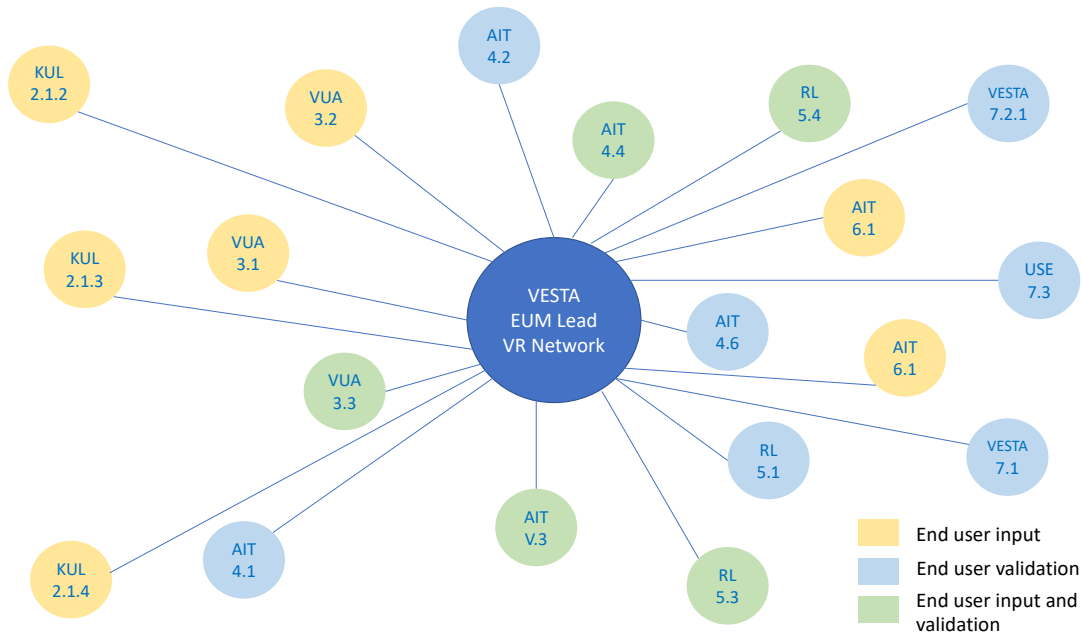


Figure 1: Visual overview of linked tasks involving end user participation

1.4 Structure of the Deliverable

Section 1 is dedicated to the context and background of this task and gives a summary overview of the vision on the Network as described in the DoA.

Section 2 explains the methodological approach for building the SHOTPROS VR Police Network.

Section 3 describes the first concrete and confirmed outlines of the SHOTPROS VR Police Network.

Section 4 includes conclusions and summarises the way forward.

2 Methodological approach and implementation for building the VR Police Network

In order to make well informed and conscient choices build the network towards a self-sustainability by the end of the project, a structured approach is followed. This covers the **relational dimension** – how to transform the T1.4. community of end user participants and interested stakeholders into a standalone network, and a **content dimension** – which SHOTPROS results will be used and how they will be taken up, disseminated, exploited and further developed by the network members after the project.

For this structured approach, a previously developed KPI based framework will be used to steer the process. This framework was initially developed for the establishment of DG ECHO's Disaster Management Training Network - DM Trainet in 2013 (AETS, 2013) and was updated in 2018 for the establishment of a European Network of CBRN Training Centres, by the H2020 project eNOTICE (eNOTICE D2.4, 2018).

The KPI framework is based on good practices and lessons learnt from success stories and failures in building a network in different sectors and thematic areas (AETS, 2013; eNOTICE, 2018).

The most recent version of the framework (eNOTICE D2.4, 2018) has been adapted to fit the SHOTPROS objectives. Therefore, some KPIs from the initial framework were combined and some were added. The following KPIs were added:

- **Partnerships:** Two streams were identified in building relations with relevant stakeholders. The first stream is the recruitment of LEAs to participate in the SHOTPROS activities during the project. The second stream are the synergies with other networks, as outlined in chapter 2.1.
- **Community building:** This KPI was added to describe how a community around the VR Police Network can be built by conducting well selected activities as described in the action plan in chapter 4.
- **Security / confidentiality:** This topic arised in a meeting with the project LEAs and was therefore added as KPI. The network determines levels of confidentiality for sharing knowledge and a security-check procedure for members applying for the network will be conducted.

From the 16 KPIs that were developed for the eNOTICE project, after adaptation to the VR Police Network, 13 KPIs remain. These are the mission, goals, scope, geographical scope, members, community building, leadership and accountability, type of network, security/confidentiality, partnerships, activities and research, quality management and financial viability.

The following paragraphs outline the structure of the framework and how it has been implemented so far.

2.1 KPI based framework

The KPI based framework was developed as an analytical framework to examine and evaluate already existing networks and to detect their lessons learned. That contributes to the

establishment of a self-sustainable network considering all relevant aspects as presented in the KPIs. The details of each KPI have been determined by the SHOTPROS partner in dedicated meeting, workshops and surveys. VESTA has gathered and comprised the inputs from the partners and by M18, all KPIs were defined. For the sake of continuous improvement, they will be refined and adapted according to the needs of the network during and after the project.

The KPIs seek to address the following questions:

- **Why** was the network built?
- **What** is the network doing?
- **Who** is involved or targeted by the network and where?
- **How** are the network goals achieved (institutional aspects)?
- **How** is the sustainability of the network ensured?
- **When** was the network established?

All KPIs relate to **three interdependent blocks**: all networks have a specific content; they have their own style and a chosen form. These three blocks should be coherent, in the sense that the chosen goals, activities, members etc. of the network determine its content; require an appropriate way of working, its style, and are supported as well as shaped by its form.

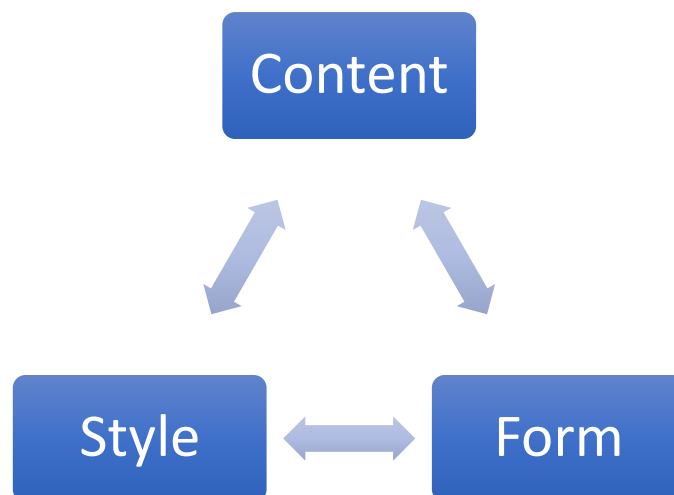


Figure 2: The three main pillars to build a successful network (AETS, 2013)

Interdependence of content, style and form

There is an interdependence in the creation of a network and the decisions related to the three components and relevant factors. Decisions related to the network’s content are determinative for the style of the network, which in turn will shape its form. Vice versa, once operational, the network’s form will support the capacity of the network, its efficiency, to achieve the expected results, its effectiveness.

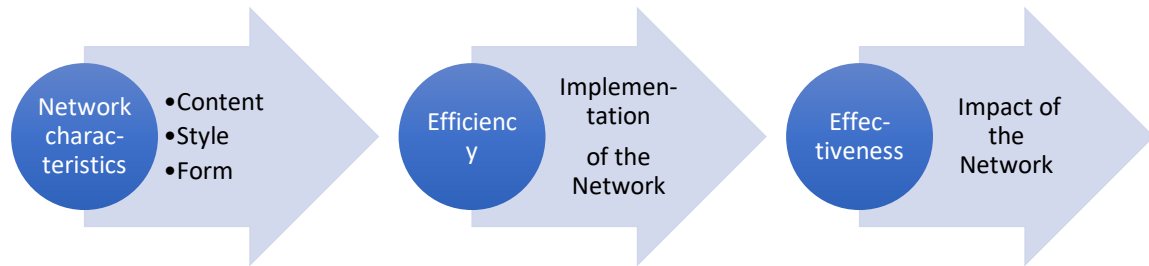


Figure 3: Interdependence of Network’s Content, Style and Form, it’s Efficiency and Effectiveness (AETS, 2013)

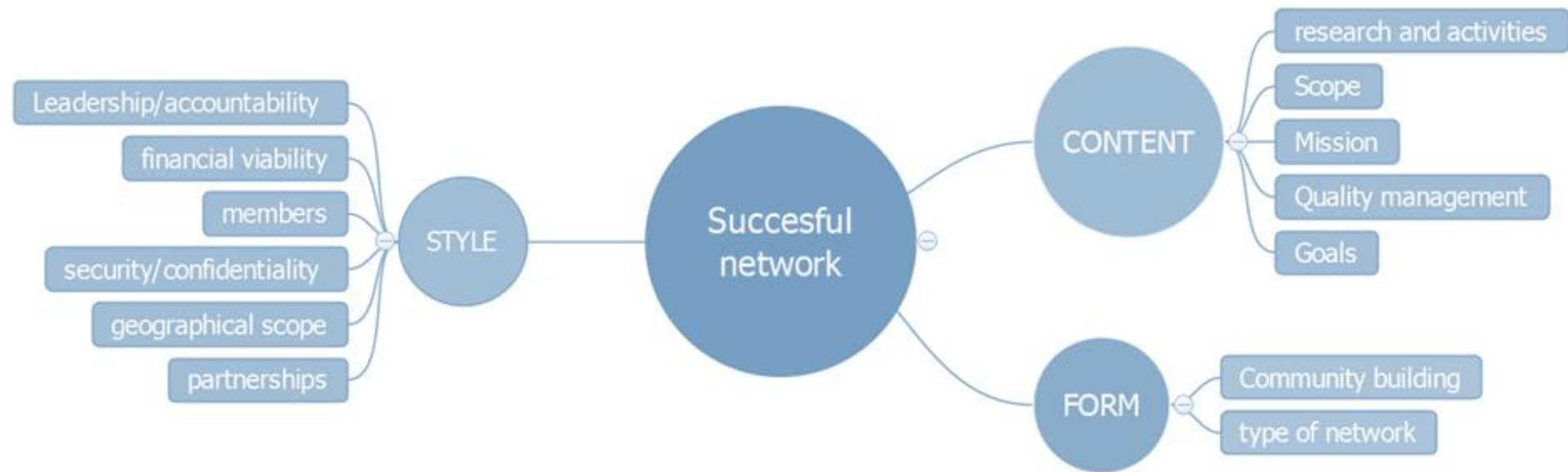


Figure 4: Visual overview of all KPIs to build a successful network

The following paragraphs provide an explanation per KPI. The original methodology was adapted according to the requirements for the development of the VR Police Network. Based on the methodological approach and the KPI framework, input from the consortium was gathered via an online survey to clarify the details of the VR Police Network. In addition, several workshops and meetings were conducted to define all KPIs presented below.

2.1.1 Content

Mission – Drive the Police to the Future of VR:

The mission of the VR Police Network is to enhance and encourage the use and development of virtual reality for police and to raise awareness for VR topics.

The mission consists of three core elements:

- Providing access to **new knowledge and future trends** in VR and police
- Bringing together different stakeholders and facilitating **exchange and communication** within a special interest group of VR
- Organising and providing access to special events and workshops to **experience actual and future possibilities** of VR

The network is intended to support police organisations in questions concerning VR and specifically to establish exchange between practitioners as well as contact between end users, decision-makers, researchers and experts. The network sees itself as a contact point and meeting place for current issues and trends in the field of VR and as a concrete supporter for end users.

Goals:

5 goals have been identified for the VR Police Network:

- Goal 1: to provide a platform/forum to structurally connect LEAs across Europe
- Goal 2: to collect, share and develop knowledge and experience about VR and police topics
- Goal 3: to connect ongoing VR projects (from the research and practical perspective)
- Goal 4: to collect and share technical aspects and opportunities concerning VR Police
- Goal 5: to share, promote and encourage the further development and exploitation of SHOTPROS results

Scope:

To ensure the sustainable success of the network, the focus of the network has been divided into two phases:

Phase 1 - during the SHOTPROS project: Here the focus is on virtual reality and training topics with an emphasis on the project topics. The focus is on the results and insights generated by the project. In particular, the advantages of the virtual training environment and the developed innovation components (such as the use of identified stressors within scenarios, stress measurement in virtual environments, use of tangible devices, etc.) are highlighted.

Phase 2 – after the project: In this phase, the aim is to expand the network scope to include further possible applications of VR in the police sector. This decision was made in the project because workshops, individual discussions and requests to the consortium have shown that there is an urgent need for knowledge exchange in the field of VR and police and that it makes sense to draw analogies from the different VR fields (for example, the knowledge of creating a VR training can also yield interesting results in the field of VR and mission planning, etc.). Among others, the following VR application areas, domains and topics could be identified in the first step (further areas will be enlarged based on inputs from the network members):

- VR and interrogation / communication
- VR and forensics / crime scene investigation
- VR and mission planning
- VR and resilience training for police officers
- Etc.

For the second phase, the VR Police Network strives to combine this knowledge and to make the best possible use of synergies. In order to meet the interests of stakeholders, the network will regularly collect their input on which topics they are most interested in. Additionally, the lead of the network will contact experts from the identified areas of application, organise key notes / workshops and compile the generated knowledge.

Partnerships with other projects/networks

The partnerships of the VR Police Network will focus on other VR networks and on existing law enforcement networks. Additionally, the network aims to connect with different projects in the area of VR and police. Also, other networks and projects dealing with topics beyond the scope will be considered for partnerships, if there are potential synergies or common interests.

Different types of partnerships have been identified, depending on how the networks / communities fit together. For example: a partnership on the basis of knowledge exchange, organising activities or workshops together, contributing to each other's events, etc. The consortium identified several networks / projects that would be relevant for partnerships and was already in contact with some of them (see D8.8): ENLETS, CEPOL, iLEAnet, iProcureNet, QROC, PROACTIVE, IFAFRI.

Quality management

The consortium agreed that the network needs to monitor the quality of activities and results. This means that a quality control document will be drawn up to determine the quality control process. The quality control will be based on scientific criteria (e.g. sample size, methodology etc.) but also on evaluation of events from the participants. The quality of the network will be monitored by gathering feedback from members for continuous improvement.

Activities and research

Network activities were identified by the consortium, that include knowledge exchange in the member section of the platform, publications, (annual) meetings, workshops, webinars, VR trials and demonstrations, discussions between end user about best practise etc. Those activities comprise:

1. Communication of knowledge and outputs of SHOTPROS to the members' national management and training academies to raise the awareness of the topic.
2. Exchange of experiences among LEAs about training methods.
3. Organisation of network meetings for the network members (events and conferences).
4. Exchange of experiences among LEAs about VR techniques and VR developments.
5. Expert discussions with the aim to create future scenarios and contexts for VR Police Training as a function of the webbased platform.
6. Exchange of experiences among LEAs about DMA strategies.
7. Setting up a website with member section to create a virtual forum for the network members to exchange information and knowledge, connect and interact.
8. Evaluation and comparison of outputs from SHOTPROS and other European VR Projects.
9. Transformation of academic knowledge from SHOTPROS results to the language of the practitioners. Report into presentation and information sheets.

10. Exchange of misconduct in past operations and definition of best acting practices for these operations to be integrated as new (VR) scenarios in DMA-SR Training as a function of the web-based platform.

11. Advertisement of existing VR police related activities.

2.1.2 Style

Members

Several types of (potential) members for the VR Police Network were indentified. The consortium deemed it very relevant to include members from different areas to have interdisciplinary perspectives and experiences on the network topics.

Potential members:

1. Law enforcement agencies
2. Researchers and research organisations involved in VR and / or law enforcement projects
3. Organisations developing tools in VR police
4. Policy makers dealing with VR police
5. Specialised police organisations (Intelligence services, special forces, etc.)
6. European organisations dealing with (VR) Police (CEPOL, Europol, etc.)
7. Decision-makers dealing with VR police topics
8. Industry in the area of VR police
9. Other public safety and security disciplines
10. Other first responders (fire fighters, medical staff, defence, civil protection, etc.)

Security/confidentiality

The consortium has decided on a division in terms of confidentiality, which means that a part of the network is open for everyone, and another part is only for official members. This is achieved by developing a website that offers 1) public information about the network and its topics in general and 2) a closed member-section. The member-section on the website can only be accessed with log-in credentials that are provided once a new member is accepted.

The public website will offer an application form for interested members that must be filled out by every applicant. Before the application for membership is accepted by the network, a

security check is conducted. That includes the verification of the data provided by the applicant, for example: the organisation the applicant is working for (Does it exist? Is it relevant for the network?). A detailed procedure for the security check of potential members will be proposed in Q2 2021 and will be reported in D8.9.

Geographical scope

In phase 1 (during the SHOTPROS project), the geographical area covered by the network is Europe and associated countries as defined in the H2020 framework. In phase 2 (after the SHOTPROS project), the geographical scope will be broadened to other countries.

Leadership and accountability

The network is established during the SHOTPROS project and therefore, led by VESTA (as task lead of T8.8) together with USE (as coordinator and WP8 lead). All major decisions are made, taking into account the suggestions from the SHOTPROS consortium.

To decide on the leadership for the official, self-sustainable network (after the SHOTPROS project), a survey was sent to all partners to gather their input on the topic. Based on the results, it is proposed that for the day to day functioning of the network, an appointed leader (-organisation) will make the decisions. However, for very impactful decisions (such as a change in the scope or mission or an amendment changing the network in some way), there will be a general assembly or board where one organisation/member has one vote.

The results of the survey regarding the leadership are summarised below:

- 81,8 % stated, that the network should be led by a management board
- 54 % proposed a more hierarchical leadership model
- 27,3% voted of a neither hierarchical nor agile leadership
- 18,2% voted for an agile / rotating leadership model

The consortium also proposed to create an advisory group (72,7%) composed of stakeholders, experts and members of the network.

Furthermore, the decision which leadership model is applied for the self-sustainable network in phase 2 (after the SHOTPROS project) depends on the option for financial viability that is chosen. If the network is financed by membership fees it requires a different leadership structure, as if it would need when being integrated into an existing network.

Financial viability

VESTA identified several options for the financial viability of the VR Police Network. Those options were presented to the consortium in a survey and the results are taken into consideration for the decision on that topic. Some of the options are a solid basis for a sustainable business model (e.g. membership fees, investment of industry partners), while others are more of a complementary financing option (e.g. funding). In a next step, VESTA will develop a business plan (in Q2 2021) for the network with an estimation of costs for the management (based on PMs), conduction of network activities and the possible sources of income (e.g. sponsorship, membership fees) that would be needed to cover the expenses (for the phase 2).

Furthermore, funding opportunities are analyzed and once a suitable funding opportunity is identified, VESTA will prepare a proposal (together with other project partners). The resources that are used for the proposal preparation will not be reported on the SHOTPROS project.

The results of the survey are summarised below:

- 72,7 % (EU-) funding
- 45,5 % Sponsorship of policy makers and others
- 45,5 % Investment of industry partners: If this option is chosen, industry partners should apply via a predetermined channel in order to gain access to the network and invest in it. This is so that the public procurement framework is followed.
- 27,3 % Membership fees: This is one of the most stable options and a business plan based on membership fees will be developed
- On top of these options, one participant suggested to organise conferences / activities with entrance fees.

Another relevant option is the integration into an existing network, for example as a special interest group. Several workshops have already been held or are planned to define joint opportunities and next steps.

A decision about the financial viability will be made in Q2 2021 by USE and VESTA so that the framework and (legal) documents can be set up.

2.1.3 Form

Type of network

It was decided, that the network type will be semi-formal by the majority (63,6%) of the consortium. The exchange of knowledge and information is deemed as the most important aspect of the network by the consortium.

Member interaction and Community building

Member interaction will take place in a different settings: Firstly, online interaction between all members is important, not only due to the COVID pandemic, but also because of the geographic distance between the members. Secondly, expert talks and information sharing accompanied by factsheets or presentations that are easy to understand for all members. Thirdly, (in-person) networking activities where members get to know each other in a professional (e.g. workshop) and an informal (e.g. social activity after a workshop) setting.

The group of members will be structured into multiple smaller (special interest) communities such as work groups, ambassadors and contact points. These smaller groups can focus on specific subjects, on the network administration and can disseminate their knowledge and results to whole network. Thus, it is possible to have multiple aspects of VR and police topics covered by one network. The consortium decided that the network should have a fixed schedule for meetings between all members.

The main community building activities are described detailed in chapter 3.1 of this document and comprise:

- Webinars and discussions
- VR trials, field trials and demonstrations
- (Online-) meetings, workshops and presentations
- Exchange visits
- (External) events and conferences

2.2 Use of the KPI based framework and recruitment of members

Building the network step by step will be an interactive and participatory process based on:

- The initial vision on the network, as described in the SHOTPROS DoA;
- Discussions during the project meetings, feedback loops and telco's whenever relevant for progressive updates in between;

- Input from dissemination activities and contacts with external LEAs and other stakeholders, interested in the SHOTPROS and future network activities;

To establish this network, different roles need to be identified:

- VESTA leads the development of the network during the project, LEAs and all other SHOTPROS partners contribute in the development, year 1 and year 2.
- In Year 3, the confirmed members of the network will contribute to the further development and sustainability of the network.

Three aspects, common to data and relations management, are taken into account as transversal areas of attention, from the start of the project: a gradual approach, monitoring for continuous improvement and a long-term vision to build a sustainable network.

A gradual approach for managing the relations and starting the activities will be adopted to ensure the integration of lessons learnt, continuous improvement and the step by step building up of trust and maturity.

Continuous improvement can be achieved based on the KPI framework that will allow a structured approach but also a continuous coherence check. At each project meeting (every six months), the status of the network will be assessed, discussed and plans for future developments will be concretely decided. During the project, network members will be recruited (relational dimension) and the SHOTPROS (public) results will be shared with and by the network members (content dimension).

In this way, **the long-term vision** from the start will be achieved: to build a network that is self-sustainable by the end of the project.

Based on the relational dimension and the content dimension, a clear strategy for the recruitment of network members will be developed. The End User Database, as presented in D1.4 will help gather end users who confirmed their interest in the VR Police Network. This database will serve as a potential database for the future network members.

The concrete recruitment of end users and stakeholders will be done gradually through:

1. Contacting end users from the network of SHOTPROS' LEA partners; by SHOTPROS' LEA partners.
2. Conducting communication and dissemination activities in order to gather contacts from relevant stakeholders we aim to integrate into the network; by all partners.
3. Targeted requests dedicated LEA networks such as ILEAnet, i-LEAD, etc.; by all partners.

3 Outlines of the SHOTPROS VR Police Network

In this chapter, the outlines of the SHOTPROS VR Police Network are presented. They are based on the initial vision and orientations of the DoA and were further elaborated by task leader VESTA supported by the SHOTPROS consortium. During the consortium meetings, the surveys and the workshops, the opinions and vision of the consortium partners were expressed. Also, the expectations from external stakeholder and contacts were taken into account for the decisions made on the network.

After the discussions and surveys about the KPIs and the network, the following observations show:

- The KPIs have been decided upon and build a concrete foundation on which the network can be built now.
- A differentiation will be necessary between project activities – to prepare the future network; and dedicated network activities that will last beyond the duration of the project.
- The most important decisions that must be made on the network until Q3 2021 are the financial viability, activities and partnerships. Also, the process of transforming interested contacts into official members must be determined until Q3 2021.

3.1 Involving interested members and community building

In the first half of SHOTPROS, several external organisations, LEAs (e.g. Danish Police, Lyon Police, Royal Netherlands Marechaussee, Police Hessen, Ministry of Internal Affairs of Ukraine, Antwerp police, Police of Scotland, Hellenic Police) and other networks (e.g. ILEAD, ILEANET, ENLETS) expressed their interest into the project topics and the VR Police Network (see D8.8).

It is of central importance to keep the contacts that are established through the course of the project interested in the network and its topics while the network is created. This calls for a balance between the necessary time to build a mature network and the need to involve external organisations and individuals who could be potential members. While the network is not officially launched, SHOTPROS organises activities external contacts are invited to. This is done to keep the interest in the topics high and the project visible during the creation of the network. As the network comes closer to sustainability and maturity, the contact list of potential members can be extended, and the network activities can become more targeted

towards the potential members and finally towards the network members. In the meantime, open community building activities take place as for the network to gather additional contacts of potentially interested members.

The project will organise several activities contributing to community building of the VR Police Network. The following key elements are planned and will be developed based on future feedback:

- **Webinars** about relevant network topics (see D8.8) are hosted by SHOTPROS and are open for external parties to join. The contact details of the attendees of the webinars are saved upon their approval (check-box at the registration), so that they can be contacted for further activities and asked to become a member once the network is officially launched. These members will then be asked to answer a short questionnaire about their expectations for the network as well, topics of particular interest can be considered for webinars, conferences etc.
- **VR trials** are currently planned for Q3 / Q4 2021 and external LEAs and other stakeholder will be invited. The main focus of the trials will be on the improvement of the VR technology and external LEAs will also be invited to these events to 1) try out the VR System (allowing the consortium to gather more LEA feedback) and 2) to have face-to-face meetings with the consortium. The expected impact is to increase the interest of external LEAs to join the network since they already know other members and the potential of the VR technology.
- **Field trials** (WP7) are a key element for the establishment and expansion of the network. In the course of these planned field trials, the following central objectives will be pursued (next to their core objective to gain end user feedback regarding the VR system):
 - Demonstration of the system at the sites of the project LEAs or cooperation partners. This will enable demonstration to a wider stakeholder group and involvement at management level.
 - In addition, at individual field trials, external LEAs (e.g. from neighbouring countries, etc.) will be invited to experience the system for themselves and to convince themselves of the benefits.
 - During the field trials (and the actual goal of obtaining feedback and end user insights), networking events and workshops are offered (e.g. on topics such as digitalisation within government organisations, etc.).

- Thus, the field trials are optimally used to better positively influence the planned network and to generate concrete leads. The detail planning and conducting of the field trials will be part of WP7.
- **(Online-) meetings, workshops and presentations** for and with external contacts that allow for a higher personal engagement (than for example a webinar with 70 attendees) are conducted. This is done to spark their interest in the network and to create familiarity with the future network members and topics.
- **(External) events and conferences** are attended by the partners to promote the network, the project and to spread the word about VR and police topics. Thereby, contacts of potential members can be gathered and the awareness about the existence and vision of the network is raised.
- **Organisation of exchange visits** between European LEAs. Organisations that already have a VR system in place offer a visit for international colleagues and link this as a networking activity.

We are taking into account the COVID19 situation for real life events (see D1.4) and are currently hosting online webinars/demonstrations instead of real-life activities. Nevertheless, the real life events will be planned from the end of Q2 and will be carried out at least on a small scale.

3.2 The network website with member-section

The website (www.vrandpolice.eu) is the core of the network and contributes to all goals identified in chapter 2.1 of this document. It is established to provide a platform/forum to structurally connect LEAs across Europe within the topic of VR. Overall, the aim is to introduce a website with excellent usability, attractive appealing design and high-quality content, to spark curiosity about the network and the SHOTPROS results.

The website will be comprised of two sections:

- the public network website
- the secured member-section

The website is developed on Wordpress to ensure a responsive user interface on all devices (mobile and desktop). Also, the chosen theme is compatible with all plug-ins that were identified to enable the proposed functions (e.g forum, member log-in section and a calendar feature) of the website and the member-section.

The target audience for the public website is broader and comprises all stakeholder interested in research and practical insights about VR and police training. It is also targeted at those that are interested in the use of VR in other areas of law enforcement such as, forensics/crime scene investigation, and mental well-being of police officers. The member-section is aimed at the official members of the VR Police Network and can be accessed with log-in credentials.

The public website and the member-section contributes to the objectives of the network in several ways:

Collect, share and develop knowledge and experience about VR and police topics

The public website will spark the interest of stakeholder in the topics by centralising knowledge and displaying insights dealing with relevant topics. Visitors of the website will be encouraged to sign up to the newsletter and receive the latest updates from the network. In the member-section, several options for interaction and exchange are offered.

Connect ongoing VR projects, experts and organisations

The connection of ongoing projects is achieved by utilising the existing project network of SHOTPROS and all partners. The network lead will contact relevant projects and invite them to be displayed on the website with content provided by them. This will increase the SEO of the website and is beneficial in terms of the multiplier effect for the projects and the network. Furthermore, we will introduce a future section “find and ask experts”. This section is intended to support future members who have specific questions about VR in the police domain (for example: Experiences with certain VR systems, information support in the purchasing process, exchange on the design of scenarios, etc.).

Share technical aspects and opportunities concerning VR and police

The member-section aims to foster exchange of information, collect technical knowledge and experience and contribute to the development of common standards for VR technology. The calendar (public and member) contains upcoming special activities (such as SHOTPROS VR Trial Days, etc.) and presents opportunities for the public and members to participate.

Promote and encourage the further development and exploitation of SHOTPROS results

The results of the SHOTPROS will be kept in the member-section so that it can be accessed and utilised after the termination of the project. Also, public deliverables from other projects may be added upon their approval. The expected impact is that the results of SHOTPROS and related project will continue to benefit European LEAs.

3.2.1 The public website

The public website will be the face of the VR Police Network to non-members. It will contain information about the network for all interested stakeholder and potential members. The homepage will include an introduction of the network, its vision and current topics. This website will have multiple pages that a user can visit either by using the menu on top of site or via links on the homepage. Following pages are planned for development and content creation:

- **Vision of the network – Drive Police to the Future of VR**
- **Benefits of the network and advantages for the membership**
Description of the benefits and demonstrating the advantages of being a member
- **VR and Police topics** (with content sub-pages)
- **Events and activities of the network**
All public events will be presented in a calendar including a link to the sub-page with more information about every event and the possibility to register for it.
- **Relevant Projects**
Relevant national and international projects will be contacted and asked if they want to be displayed on the website with a short introduction and contact. Thereby, the network and the other projects can benefit from the multiplier effect and increasing public awareness.
- **Research on VR and Police**
This page includes publications, white-papers, executive summaries, ongoing studies etc. relevant for the identified stakeholder and target audience. The management documents aim to bridge the gap between the research / technology and the LEAs.
- **Membership application**
This section will include a contact form to apply for a membership including question as, for example:
 - Name
 - Organisation
 - What is your motivation to join the VR Police Network?
 - What network activities would you be interested in?
 - Do you or your organisation have specific needs related to VR Police?
 - Are you currently experimenting with VR Police?

- Would you be interested in sharing your best practices and knowledge about VR Police experiences?

- **Newsletter subscription**
- **Contact information and contact form**

As a compliment to the membership application, the VR Police Network contact points are placed on the website. The project coordinator, USE and VESTA, the project’s end user manager and task leader of the VR Police Network, will act as network contact during the project.

3.2.2 Member-section

This section can be accessed via log-in on the public website. The log-in credentials are sent to the members once the security check is completed and they are accepted. The additional content and functions identified for the member-section are presented below:

- **Knowledge and learning hub**
 - (Scientific) articles and discussions can also be shared and commented upon on a high level. These allows for collaboration and exchange between researchers, LEAs and technology experts on a secure platform not visible to the public.
 - Guidelines and standards: deliverables from SHOTPROS and other projects dealing with the topic of common standards for VR in the security domain.
 - Etc.

- **Member Experience forum**

The forum is established to allow for interaction between the members, to share experiences with VR, and to exchange knowledge and information about relevant topics. The forum can also be used by the leadership of the network to promote events or to gather knowledge about relevant topics.

Multiple roles were identified for the forum: moderators and participants will be the main roles; the moderators will be able to delete messages or edit them, the participants can only edit their own message and react to the thread. The forum rules will also be clearly determined and displayed on the home page of the forum. This way all members will be informed about them. Depending on the amount of content placed in the forum, clean-ups will be scheduled of the content. For example, if there are

forum topics of events for the network from years ago, the topics might not be relevant or active anymore. These topics can then be removed by the moderator.

- **Profile page**

Members can add a profile picture and information about themselves, their expertise and their organisation and / or project.

- **Member calendar**

The member calendar will include all events from the public calendar and upcoming network events and activities exclusively for the network members. Also, the members may add their own activities to it if they want to invite other network members.

3.3 The ecosystem and key players

This section outlines identified existing networks in the area of law enforcement to create a map of the environment. It is important to mention that there are a large number of (international) police networks, some are focussing on a specific niche and some have a wider, more general scope. In order to introduce a new network into this environment, the network delimit from the area covered by other networks already. In the case of the VR Police Network, this would be firstly access to the project results and experts, and secondly excellent knowledge and expertise of VR and policing.

It is important to position the network in the ecosystem of already existing networks. This section aims to do so, firstly by outlining relevant existing (LEA) networks and secondly by defining the position of the SHOTPROS network in relation to those networks.

Several police networks were identified, including (but not limited to) @-On (an ¹operational network against mafia), Airpol (airport police network), ATLAS (a network of special forces of law enforcement), CARPOL (a network about car-related crime), CULTnet (an informal network about theft of antiquities, art and cultural artifacts), ENFAST (European Network of Fugitive active search teams), ENPPF (European Network for the Protection of Public Figures), EnviCrimeNet (informal network connecting police officers, crimefighters in the field for environmental crimes), EFE(European Firearm Expert groups, a network about illicit firearm trafficking), SKMS network (Major Sport Events network about security of these events), ROADpol (European Roads Policing Network), EUCPN (European Crime Prevention Network), RAILpol (European association of railway police forces) ESG (European surveillance group),

¹ <https://data.consilium.europa.eu/doc/document/ST-11055-2018-INIT/en/pdf>

TISPOL (European traffic police network), RCEG (radio communications experts, a TIG of ENLETS) EMPEN (European medical and psychological experts' network for law enforcement), ENAA (European Network on the administrative approach tackling serious and organised crime) and Kynopol (Police network for law enforcement dog professionals). A lot of the network mentioned here are part of LEWP (Law Enforcement Working Party).

For the analysis, public available information about the mentioned networks was scanned to identify if they (visibly) deal with the topic of VR in law enforcement.

The table below presents the results of the analysis of the network ecosystem and the presence of VR in existing law enforcement networks. As demonstrated, most of those networks do not have public information and / or a dedicated section dealing with the topic of VR in law enforcement. This shows that there is a gap in the law enforcement networks, and that SHOTPROS is closing with the establishment of the VR Police Network.

Network/project	Main Topic / Focus	Dedicated section of VR training? (open source information)
ILEANET	Research and innovation in Law enforcement	no
ENLETS	Broad interest in technology in Law Enforcement	not yet, but a representative from the network expressed their interest into VR topics
@-On	Mafia and organised crime	no
AIRPOL	Aiport security	no
ATLAS	Special forces	no, there is a focus on implementation for common training, but VR is never mentioned
ENFAST	Fugitives search	no
ENPPF	Protection of public figures	no
CARPOL	Car-related crimes	no

CULTnet	Theft of antiquities, art and cultural artifacts	no
EnviCrimeNet	Environmental crime	No. Does work together with CEPOL to create a training for environmental crime
EFE	Illicit firearm trafficking	no
SKMS network	Sporting events security	No, does want to provide pan European training for policing of such events
ROADpol	Road policing	no
ESG	(covert) surveillance (a merger of the SCG, surveillance cooperation group, the SENSEE, surveillance expert network for southern Europe and the ESG European Surveillance group)	no
KYNOPOL	Law enforcement dogs	no
EMPEN	European medical and psychological experts' network for law enforcement	no
TISPON	European traffic police network	no
RCEG	Radio communication experts group	no
ENAA	the administrative approach tackling serious and organised crime	no

Additional information about networks that are specifically interesting for the VR Police Network and SHOTPROS are presented below.

ENLETS is the European network of law enforcement technology services. It is an informal network, with a formal status. It has a broad scope and operates with technology interest

groups (TIG). It conducts some VR related activities, but there is no specific TIG focussed on VR yet. The lead of the network expressed their interest in creating such a TIG in collaboration with the VR Police Network. Thus, it might be an option for the Police VR Network to become a TIG from ENLETS, or otherwise work closely together with ENLETS.

ILEAnet is a network for LEA practitioners with a focus on research and development. It aims to start a dialogue between practitioners and industry and academic experts. The network has a broader scope than the SHOTPROS project and the VR Police Network. SHOTPROS can provide niche content (studies and the VR training solution) to ILEAnet in the pre-network phase. In the network phase (after the end of the project) the network's scope broadens (to VR and police) but it will still fall under the umbrella of ILEAnet. Thus, the network should not aim to compete with LEAnet, but rather to form a niche with strong links to ILEAnet with a strong specialisation.

On top of these police networks, institution like CEPOL, EUROPOL, OSZE and INTERPOL were identified as relevant for strategical partnerships.

With this abundance of networks, it is important that the VR Police Network remains niche. During the analysis of the ecosystem, it became clear that most of the networks do not have a dedicated section about VR. This is the gap that the VR Police Network will fill, since this topic is highly relevant in the law enforcement domain. Instead of having multiple networks working on VR parallel, we aim to centralise the information in the VR Police Network and enable exchange and collaboration of involved stakeholder. Additionally, VR can be part of the scope of ENLETS and ILEAnet, so it is important to stay connected with these networks and benefit from synergies.

4 Action plan

This plan describes the work carried out towards the development of the network and what is planned to continue establishing a self-sustainable network. First, the general plan is outlined and complemented by a detailed plan. It must be noted that some of the aspects mentioned in this section are correlating with D1.4 end user management because of the interconnectedness of these tasks.

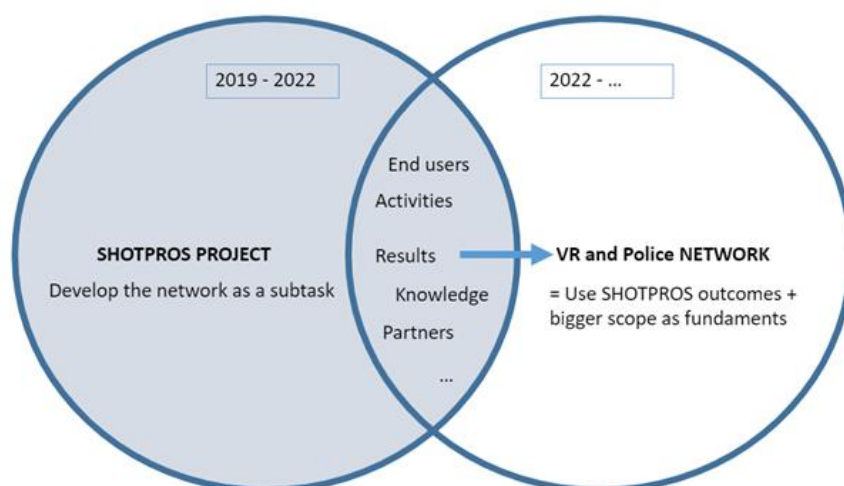


Figure 5: two phases of the network

As figure 5 demonstrates, we are currently in the first phase (2019-2022). During this time period the end user activities overlap with the activities of the VR and Police network. Potential members of the network will be invited to dissemination events of SHOTPROS in order to keep them interested. The goal of these activities is to both disseminate the project results but also to create interest in the subjects and the future of those subjects. This interest in the subject, can also become interest in the future network which will continue working on those subjects. For the network, three time periods will be important:

Spring 2021 - Summer 2021 (6 months)

- Set up content, topics and generate further contacts
- Spread the word about the VR Police Network
- SHOTPROS activities will drive the network and enlarge the existing database of interested persons/organisations
- Define financial possibilities and create a business plan

Summer 2021 - Spring 2022 (12 months, end of SHOTPROS)

- Start enacting business plan
- Form a core group of the network out of the contacts
- Establish network rules, write down the first official documents
- Organise real word events (e.g. VR trials, final conference)
- Visit police conferences (e.g. I-LEAD industry days, etc.)

Spring 2022 and on (end of SHOTPROS)

- Official network is announced at the final conference
- Core members start with the stand-alone network

4.1 Past activities

The past activities that have taken place for the SHOTPROS project (and by extension the network) are outlined in D8.8, this section will only contain a summary of the activities that have happened. It is important to mention that some activities, like the field trail at Campus Vesta, were postponed because of COVID19.

The focus in the first project year were meetings and workshops to discuss and uncover the potential and topics of the VR Police Network. More than 30 meetings or workshops with external contacts were conducted (e.g. University of Vienna, VR@VU group, Dutch military, fire fighters and the police academy, Police of Antwerp, city police Zurich, Refense AG, Dutch police and police academy, police academy of Baden-Wurttemberg and a meeting with Polizeipräsidium Mannheim).

In several meetings with industrial contacts (such as Rheinmetal MAN, Thales, etc.; see D8.8) the potential of VR was discussed beyond the scope of training and in terms of the future areas of application. The included fruitful discussions about VR & Mission Control, VR & Resilience and VR & Communication. Meetings with external LEA contacts revealed interesting insights into VR applications in the police domain beyond the scope of training, such as VR & Crime Scene Investigation. All of those topics and insights were collected and contribute to the refinement of the VR Police Network, which is not limited to the scope of training.

SHOTPROS was also in contact with other projects and networks to establish synergies for a (potential) partnership in terms of the VR Police Network. Those contacts are reported in D8.8 and include amongst others, the following projects / networks: AUGGMED, PROACTIVE, TARGET, eNOTICE, iLEAD, VRinSight, E.N.T.E.R. network, LAW-TRAIN, ELNET, ILENET, etc.

On top of that a webinar series that has been organised in the last half year. These webinars were about VR police training, VR requirement engineering, VR training concepts and about the future application areas of VR and police.

4.2 Detailed action plan for the next Steps

This action plan will include a detail overview of the upcoming six months and a more general plan for the rest of year two and year three. The action plan is subject to rolling planning and

the tasks for the next six months are defined. There is a strong interplay between network actions, communication tasks and dissemination activities, which is why these areas are managed in a joint document.

Timing	Activity	Involved SHOTPROS partner	Explanation and (expected) impact
01/2021	CEPOL Webinar - (Almost) A Year of Policing the Pandemic - Facts, Figures & Issues	KUL, UHEI, all LEAs invited	SHOTPROS was invited by CEPOL to contribute to their COVID-19 related webinar series.(see https://www.cepol.europa.eu/media/news/ovid19-related-webinars-series-resume-week). During the CEPOL webinar, we successfully presented SHOTPROS and emphasis the core message of the importance and advantages of VR training. Thereby, the relationship with CEPOL was strengthened for further collaboration. That will contribute to the successful establishment of the network and the dissemination of project results to a wider audience in the field of law enforcement. The mentioned study is reported in D6.1.
01/2021	VR Workshop with external LEAs - Workshop and showcasing of the actual VR system (online demonstration)	RL, KUL, USE, all LEAs invited	An online workshop was conducted to showcase the actual VR system, and to gather feedback on the actual VR demo. Target group were external LEAs and the project involved advisors. The workshop was also used to introduce the planned network to external LEAs and advisors and to establish a continuous relationship with these persons and/or organisations.
02/2021	CEPOL Webinar - Policing the pandemic - lessons (to be) learned	KUL, UHEI, all LEAs invited	SHOTPROS contributes to the CEPOL Webinar related webinar series https://www.cepol.europa.eu/media/news/ovid19-related-webinars-series-resume-week . We presented that the four categories of Human Factors (contextual, organisational, personal, societal) influence how stressed officers have felt during the pandemic crisis.

			<p>Those factors were linked to the possibility to include them in (VR enhanced) decision-making and acting training curriculum we are developing in SHOTPROS. Also, the importance of training and the benefits of VR in such training programs was emphasised.</p> <p>Thereby, the relationship with CEPOL was strengthened for further collaboration. That will contribute to the successful establishment of the network and the dissemination of project results to a wider audience in the field of law enforcement. The mentioned study is reported in D6.1.</p>
02/2021 - ongoing	Strategical collaboration meetings with other networks	USECON, VESTA	<p>Planning and conducting of several strategical meetings with European organisations and networks relating to the SHOTPROS network. (For example: possibility to integrate the network into existing networks as a Technology/VR Special Interest Group).</p>
03/2021	Initial planning of the field trials		<p>The planned field trials (WP7) are a key element for the establishment and expansion of the network. In the course of these planned field trials, the following central objectives will be pursued:</p> <ul style="list-style-type: none"> - Demonstration of the system at the sites of the project LEAs or cooperation partners. This will enable demonstration to a wider stakeholder group and involvement at management level. - In addition, at individual field trials, external LEAs (e.g. from neighbouring countries) will be invited to experience the system for themselves and to convince themselves of the benefits. - During the field trials (and the actual goal of obtaining feedback), networking events and workshops are offered (e.g. on topics such as

			<p>digitalisation within government organisations, etc.).</p> <p>Thus, the field trials are optimally used to better positively influence the planned network and to generate concrete leads. The detail planning of the field trials will be part of WP7.</p>
03/2021	<p>Business Planning - Start the creation of the business plan with a comparison of financial options for the planned SHOTPROS network</p>	<p>VESTA, USE</p>	<p>In the course of the preparation, the central key questions for the financing of the network, a possible legal form or framework as well as the central roles and tasks are defined.</p>
03/2021	<p>SHOTPROS Webinar - Topic: The Future of VR and Police</p>	<p>USECON, VESTA, AIT</p>	<p>All LEAs and external contacts will be invited to join the webinar about “Future of VR and Police”. The webinar will also be used to present the planned network and to identify specific interested persons or organisations. The expected impact is both encouraging continued engagement with the SHOTPROS results as well as the continued expansion of contact list of possible future network members</p>
04/2021	<p>Launch Website of the VR & Police Network – Release 1 (without member space)</p>	<p>VESTA, USE</p>	<p>The initial version of the platform will be launched and maintained. The aim is to raise the awareness of the VR & Police Network within relevant stakeholders and (potential) future network members. This is achieved by centralising the information about the network and the planned activities so that interested stakeholder can access it.</p>
From 04/2021	<p>(Online) VR Workshops with external LEAs - Workshops and showcasing of the SHOTPROS VR system</p>	<p>RE-liON, AIT, all LEAs</p>	<p>According to the release plan of the agile technology development several VR workshops with external LEAs are planned. Due to the current pandemic situation, these workshops will be held virtually and adapted according to the legal situation. Compared to</p>

			<p>the later planned "VR Trial Days" (from Q4 2021), the workshops are planned more as discussion and feedback events and will last approx. 4 hours. Furthermore, these workshops will serve as a basis for further activities and the establishment of contacts for the later planned events directly on site.</p> <p>The methodical planning of the workshops takes place in close coordination with the defined release plan. Depending on the development cycles or the results, different target groups are invited, and the system is demonstrated. For example, workshops are planned specifically for LEA trainers, operational staff and decision-makers in the area of technological purchasing within the law enforcement authorities.</p>
04/2021	Factsheet for & communication - Newsletter with factsheet about "VR and Police Training".	USE, VESTA, research partner, all LEAs + external LEAs	<p>The communication material addresses facts about VR such as the difference between VR, AR and MR, but also information about possible costs, and training advantages with virtual systems.</p> <p>It is sent out to disseminate and communicate project results with a focus to the end user needs. The factsheet is a reference document for the questions that LEAs have expressed about the usage of virtual systems within their training (these questions were collected via a survey among the end users).</p>
06 /2021	Member Platform - Launch the member platform as a part of the website.	VESTA	<p>The members section is the core of the network website as it allows for exchange and interaction of network members in a login-secured space. It is developed to allow for sharing of information and experiences on VR and Police topics not accessible by the public and should therefore lead to a higher engagement of the members. One of the key elements will be sharing of practical insights</p>

		<p>from several organisations and to create learnings and best practises for the future usage of VR. As described, the first focus will be on training and virtual systems (the core message of SHOTPROS)- but the aim should be to also bring in experience from other police areas (such as VR in the area of crime scene investigation, etc.) in the area of virtual or augmented operational purposes. This section is a USP to convince stakeholder to join the network – more information and interaction with members and experts is only possible with the log-in.</p> <p>Another aim of the member area is to bring together the various stakeholders (including users, manufacturers, researchers, etc.) in the field of virtual systems and approaches.</p>
06/2021	Communication and actions - Platform & member area	<p>After the launch of the digital member area on the network platform, the following activities are planned:</p> <ul style="list-style-type: none"> - Integration of existing contacts into the new platform. - Ongoing updates of content with focus on results from the project but also case studies and experiences of the platform users. - Virtual network meetings and exchange on defined topics (e.g. experience reports from the use of virtual training systems, challenges in the procurement of VR systems, etc.). - Proactive involvement of users in the design of new topics and content - Networking of users based on their needs (e.g. in the search for technological VR partners, visits to other authorities, trying out the system, etc.) - etc. <p>VESTA takes on the central role of a digital community manager and maintains the</p>

			contacts, thus supporting the process of network building.
06/2021	Management Paper - Creating a management document and summary about SHOTPROS results.	White a and about	USECON, VESTA, research partner
Q3/2021	VR Trial-Days		Starting with Q3 (2021) we plan several “VR Trial-Days” as network activities. Compared to the planned field trials, the "VR Trial-Days" are events lasting a maximum of one day in a small setting in order to be able to experience the virtual system better. We focus on groups with a maximum of 8 people and try to group them from one organisation (for example, there are current talks with the police authorities in Austria and Switzerland, which are highly interested in those possibilities). Based on the actual pandemic situation we therefore plan following possibilities: <ul style="list-style-type: none"> (a) Conducting the “VR Trial-Day at RE-liON's premises (in the Netherlands) with a small group and taking into account Covid measures (depending on the current legal situation). (b) Virtual live demonstration of the system via video stream - if no travel or group activities are possible.
Q3/2021	Plan of action – From contacts to members		VESTA, USECON, input from all partner
Q3/2021	Start quality monitoring (including interviews)		VESTA, all LEAs

			The expected impact is the continuous monitoring of the satisfaction of the LEAs, the ability to signal improvement or deterioration in the end user management (see D1.4) and the network.
From Q4/2021	Start of the defined field trials		As described, field trials will start from Q4 (2021) as a key element for the network.
2022			
	Final SHOTPROS conference	VESTA, all partner, external contacts / stakeholder	The planned conference is the final event of the project and is planned as a demonstration event of the virtual system. In the course of the final SHOTPROS conference, the network will be officially presented, and formal membership enabled (depending on the chosen form or Business Canvas model).
After the project	Widening the scope of the network	The network leadership	As described, the planned network will focus on the core topic of "VR and Training" in the police sector during the SHOTPROS project period. Currently, an expansion of the contents and the scope is planned for the period after the project, since there are concrete requests for an exchange of knowledge or support from LEAs to the SHOTPROS team (e.g. what experiences can be drawn from the use of VR training for securing a crime scene with VR or is VR suitable for the use of mission planning, etc.). Furthermore, partners from the consortium are working on different virtual and augmented topics and projects (such as medical VR training or VR and resilience topics) and can contribute their knowledge to the network. The networking of different stakeholders in the field of virtual systems for the police (and security) sector is also a concrete need that has emerged through several discussions and workshops. Thus, the

		expansion of the mentioned topics is planned, and the network is strengthened even after the project.
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5 Conclusions and way forward

The KPIs have all been defined for the network, this means that from now on, it is important to start focusing on building the network. This is done by focusing on three KPIs: the activities, partnerships and financial viability.

Through the activities and events in the first 18 months of the project, we can build on a solid database of people interested in the network. These contacts now need to be convinced of the benefits of the network, with a particular focus on:

- Providing access to new knowledge and experience in VR and police (through the member area of the platform)
- Bringing together different stakeholders and facilitating exchange and communication (through the online platform and joint activities)
- Organising and providing access to special events and workshops to experience the possibilities of VR (such as the VR Trial Days, etc.)

The focus of the work in the coming months will be on the technical implementation of the website and platform, the development of targeted content, the creation of the business plan and business canvas model, as well as further discussions with strategic partners for joint activities and opportunities.

The future results on the progress of the VR Police Network will be described in the distinct section of the dissemination reports, which include a section on ‘VR Police Training Network.’

6 References

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