

D8.8 Reports on Dissemination

Activities including

'VR Police Network'

Report V1



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List of Acronyms and Abbreviations

Acronym / Abbreviation	
VR	Virtual Reality
SPOs	Single Points of Contact
LEA	Law Enforcement Agency
DMA-SR	Decision-making and acting in stressful and high-risk situations
KPI	Key Performance Indicator

Table of Contents

Executive Summary	3
1 Introduction	4
2 Reports on Dissemination/Communication Activities	5
2.1 Events.....	5
2.2 Scientific Dissemination	7
2.3 Policy-Makers – Contacts and Toolkit	13
2.4 Project Website	14
2.5 Social Media	16
2.6 News and media coverage.....	18
2.7 Printed Materials.....	19
2.8 VR Police Network and exchange with related projects.....	22
2.9 Research activities	25
2.10 Other Activities	26
3 Report on VR and Police Network.....	28
3.1 Methodological approach.....	29
3.2 Status of the methodological approach	30
3.3 KPI's decided on.....	31
3.4 Ongoing KPI's	33
3.5 KPI's: next steps.....	33
3.6 Plan of Action: M1 – M12 (year 1)	34
3.7 Plan of Action: M12 – M24	34
3.8 Plan of Action: M24 – M36	35
4 Summary and next steps.....	36
Annex	38
Annex I: List of referring websites	38
Annex II: Press Releases	44
Annex III: List of references in the media.....	51
Annex IV: SHOTPROS Newsletter	55

Table of Figures

Figure 1: SHOTPROS Website (M3).....	15
Figure 2: SHOTPROS Website (M10).....	15
Figure 3: Newsletter Report	19
Figure 4: Printed Materials (Set1).....	20
Figure 5: Planned Actions VR Police Network (per project year).....	29
Figure 6: Visual overview of all KPIs to build a successful network.....	30
Figure 7: status of the methodological approach	30
Figure 8: Plan of action: M1 – M12.....	34
Figure 9: Plan of action: M12 – M24.....	34
Figure 10: Plan of action: M24 – M36.....	35

Tables

Table 1: KPIs for Events - planned / achieved	5
Table 2: Event overview SHOTPROS (M1-M16)	7
Table 3: KPIs Scientific Dissemination - planned/achieved	8
Table 4: Scientific Dissemination SHOTPROS (M1-M16)	12
Table 5: KPIs policy-maker contacts – planned/achieved	13
Table 6: Contacts to policy-maker SHOTPROS (M1-M16)	14
Table 7: KPIs Project Website - planned / achieved	15
Table 8: KPIs for Social Media – planned / achieved	17
Table 9: KPIs Press & Media coverage - planned/ achieved	18
Table 10: KPIs for VR Police Network – planned / achieved	23
Table 11: Contact with related Projects (M1-M16)	24
Table 12: Research activities SHOTPROS (M1-M16)	26
Table 13: Other comm./diss. Activities (M1-M16)	28

Executive Summary

This document *D8.8 - Reports on Dissemination Activities including 'VR Police Network'* accounts the dissemination and communication activities of the first 16 months in SHOTPROS. It aims to provide an overview of the measures taken by all partners based on the defined strategy in *D8.1 – Dissemination Plan and Communication Guide*.

The deliverable is structured as follows:

- 1. Introduction:** Overall aim and strategy of Dissemination and Communication of SHOTPROS
- 2. Reports on Dissemination / Communication Activities:** This main chapter outlines the efforts taken by all consortium partners to promote the project, sorted by channels and tools of communication / dissemination
- 3. Report on VR and Police Network:** An overview of the current status and way forward for the VR and Police Network is presented in chapter 3.
- 4. Summary and next steps:** Drafts the planned activities for the next months of the project

1 Introduction

This deliverable is the first report on dissemination activities and the progress of the VR Police network of M1-M16 of the SHOTPROS project. It is complimented by *D8.1 – Dissemination Plan and Communication Guide*, where a detailed description of the strategical approach and the framework for the communication and dissemination in SHOTPROS can be found.

In this document, the collaborative efforts towards achieving the set KPIs, maximising the impact and promoting the project are reported. All those efforts were taken in accordance with the framework in D8.1 and legal requirements set by the EC.

Strategic objectives WP8:

- Disseminate the results of SHOTPROS.
- Exploit the information, knowledge and experience gained from SHOTPROS.
- Communicate the progress, activities, events and accomplishments of SHOTPROS.
- Reach the target audiences and trigger their interest in the project.
- Inform the general public about the project and how they benefit from EU funded research.

2 Reports on Dissemination/Communication Activities

The planned activities for the external communication and dissemination activities under consideration of the target audiences and key messages were described in D8.1. All activities were carried out in compliance with the General Data Protection Regulation (GDPR) of the European Union obligations set out by the EC.

This chapter provides an overview of SHOTPROS' Dissemination and Communication activities from M1 – M16 sorted by channels. In the beginning of each sub-chapter is an information box with a brief summary of what was promised in the dissemination plan and the defined KPIs (planned and achieved by M16). It must be noted that the planned KPIs were set on a yearly basis and this report covers the period from M1 to M16. That means, that the achieved KPIs (in light blue) in the column "year 2" only represent the status by M16.

Followed by the box and the KPI tables, each sub-chapter contains an overview of the measures that were taken to fulfil those goals.

2.1 Events

The project will be presented at national and international events for the public, to communicate the idea of the project and objectives to the European citizens. Also, the project will be presented at fairs and exhibitions focused on law enforcement, police training, criminology and psychology, policing, security, VR, training, human computer interaction and serious games. The goal is, to initiate discussions and meetings with policy-makers and law enforcement authorities and ministries at the national level for introducing the concept and the innovative components created in SHOTPROS.

KPIs for Events				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Number of events attended representing the SHOTPROS project (planned)	2	3	4	9
Number of events attended representing the SHOTPROS project (achieved M16)	14	0	-	14

Table 1: KPIs for Events - planned / achieved

The following table provides an overview of the events consortium members attended representing SHOTPROS.

Event	Partner	Person	Date	Link
Austrian Robotics Workshop	AIT	Sebastian Egger-Lampl	09.05.2019 - 10.05.2019	https://www.profactor.at/events/austrian-robotics-workshop-oagm-2019/
Annual Field Exercise Disaster Management Campus Vesta	VESTA	Nick Zwaneveld (RE-LION), R.I. Hutter and Matthijs Koedijk (VUA) attended as observer	18.05.2019	https://www.hln.be/in-de-buurt/ranst/grote-rampenoefening-op-campus-vesta-jongeren-schieten-tien-studenten-dood~af914c59/
Forum Produktion FFG	AIT	Sebastian Egger-Lampl	28.05.2019 - 29.05.2019	https://www.ffg.at/forumproduktion2019
ASP2019	UHEI	Laura Giessing	30.05.2019 - 01.06.2019	https://www.asp2019.de/
QoMEX 2019	AIT	Sebastian Egger-Lampl	05.06.2019 - 07.06.2019	https://www.gomex2019.de/
FEPSAC2019	VUA	Raoul Oudejans & Vana Hutter	15.07.2019 - 20.07.2019	https://www.fepsac2019.eu/
European strategic research agenda in defense 2021 - 2027	AIT	Sebastian Egger-Lampl	09.09.- 10.09.2019	-
Annual forum of Smart Retail	USE/AIT	Markus Murtinger, Sebastian Egger-Lampl	01.10- 02.10.2019	https://www.imh.at/veranstaltungen/rueckblick/rueckblick-forum-bankstrategie-smart-retail-2019/rueckblick-jahresforum-smart-retail/

Mediterean Security Event 2019, Cyprus	VESTA	Kathleen Van Heuverswyn, VESTA (presentation on practitioners' involvement versus end user management)	29-31.10.2019	https://www.medeaproject.eu/
VR Days Europe 2019	VUA	VUA Team	15.11.2019	https://vrdays.co/
PiD Fachseminar Wiesbaden	USE	Markus Murtinger	23.11.2019	https://www.polizeitrainer.de/event/pid-fachseminar/
OSCE PAN meeting	OSCE	Markus Murtinger, Sebastian Egger-Lampl	29.11.2019	-
conference: Active shooter and Amok cases	The Security Academy (SIAC) of the Austrian Federal Ministry of the interior	Anders Essman	2019-12-10-11	contact: chief inspector
Secure Societies "project to policy kick off seminar	USE	Markus Murtinger	31.01.2020	-

Table 2: Event overview SHOTPROS (M1-M16)

2.2 Scientific Dissemination

The scientific results will be disseminated to the academic community by publishing them in relevant scientific journals and scientific conferences to inform the academic community about the progress / results and to initiate discussions on the topics of SHOTPROS.

KPIs for Scientific Dissemination				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Number of scientific publications in peer reviewed journals (planned)	0	2	4	6
Number of scientific publications in peer reviewed journals (achieved M16)	0	1	-	1
Number of scientific publications in peer-reviewed International Conferences & Workshops (planned)	2	5	7	14
Number of scientific publications in peer-reviewed International Conferences & Workshops (achieved M16)	3	2	-	5

Table 3: KPIs Scientific Dissemination - planned/achieved

The following table offers an overview of the publications from the first 16 project months. It needs to be mentioned that some conferences were postponed and/or conducted online due to the COVID19 crisis. Nonetheless, all KPIs of scientific dissemination were (over-)fulfilled in the first 16 project months.

In addition to the promised publications in journals and conferences, several (bachelor / master) thesis and a peer-reviewed book-chapter were written and submitted through the course of the project.

Partner	Type of Publication	WP	(optional) Task	(Planned) Submission Date	Author(s)	Title of the journal or equivalent	Comments
UHEI	Publication in Conference proceeding	WP4	T4.2	May-19	Laura Giessing, Marie Ottilie Frenkel, Jana Strahler, Raoul Oudejans, Vana Hutter, Henning Plessner	Nachwuchstagung der Arbeitsgemeinschaft für Sportpsychologie	PhD Workshop, presented dissertation exposé
UHEI	Publication in Conference proceeding	WP4	T4.2 Case Study	Sep-19	Laura Giessing, Marie Ottilie Frenkel, Jana Strahler, Raoul Oudejans, Vana Hutter, Henning Plessner	dvs Nachwuchstagung	PhD Workshop, presented research design for the case study
UHEI	Thesis/ dissertation	WP4	T4.2 Paintball	Mar-20	Laura Giessing, Marie Ottilie Frenkel, Sebastian Egger-Lampl, Stefan Suetter, Mario Staller	Bachelor thesis	Submitted
UHEI	Publication in Conference proceeding	WP4	T4.2 Paintball	May-20	Laura Giessing, Marie Ottilie Frenkel, Sebastian Egger-Lampl, Stefan Suetter, Mario Staller	Jahrestagung der Arbeitsgemeinschaft für Sportpsychologie	Submission accepted (symposium has been cancelled)

UHEI	Publication in Conference proceeding	WP4	T4.2 Paintball	May-20	Marie Ottilie Frenkel, Laura Giessing, Sebastian Egger-Lampl, Stefan Suetter, Mario Staller	North American Society for the Psychology of Sport and Physical Activity	Submission accepted (conference has been cancelled)
KUL	Master thesis	WP2		June-20	Kaat Poels (student) Emma Jaspaert (supervisor)	Het gebruik van VR in criminologie [The use of VR in criminology]	Submitted & Defended
UHEI	Article in Journal	WP6	SHOT-COVID	Aug-20	Marie Ottilie Frenkel, Laura Giessing, Sebastian Egger-Lampl, Raoul Oudejans, Vana Hutter, Lianne Kleygrewe, Emma Jaspaert, Henning Plessner	Journal of Criminal Justice	Under Peer-Review
VUA	Bachelor Thesis	WP3		Aug-20	Ruben de Bruin, Tamara Grove (students), Matthijs Koedijk (Supervisor), Lianne Kleygrewe, Vana Hutter, Raoul Oudejans	Investigating sense of presence and subjective measures of anxiety and mental effort during virtual reality scenario-based training of Dutch Police officers	Submission accepted

USE	Publication in Conference Proceeding	WP2	CoCreation in Virtual Worlds for complex questions and technologies	Sept-20	Markus Murtinger	GOR20 – General Online Research 2020	Submission accepted: spring 2020 Conference planned: summer 2020 Change due to COVID: Online conference in Sept 2020
VUA	Master Thesis	WP3		Sept-20	Tess Dekker (student), Lisanne Kleygrewe (Daily Supervisor), Raoul Oudejans (Supervisor), Vana Hutter	Investigating VR-Training-At Home for Dutch Police Academy Students during the COVID-19 Pandemic	Submitted
UHEI	Article in Journal	WP4	T4.2 Case Study	Sept-20	Marie Otilie Frenkel, Laura Giessing, Sebastian Egger-Lampl, Stefan Suetter, Mario Staller	Psychoneuroendocrinology	Published Link: https://www.sciencedirect.com/science/article/abs/pii/S0306453020302882
KUL	Book chapter in book	WP2		Sep-20	Emma Jaspaert & Geert Vervaeke	Book (in Dutch): Big data and innovative methods for criminological research Book chapter (in Dutch): Virtual Reality in criminology	Published September 2020 Reference: Jaspaert, E., & Vervaeke, G. (2020). Virtual Reality in criminology [Virtual Reality in criminology]. In W. Hardyns & T. Snaphaan (eds.), Big data en innovatieve methoden voor

							criminologisch onderzoek [Big data and innovative methods for criminological research] (p. 271-300). Den Haag: Boomcriminologie
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Table 4: Scientific Dissemination SHOTPROS (M1-M16)

2.3 Policy-Makers – Contacts and Toolkit

SHOTPROS will provide strategies, decision-making support and a toolkit for policy-makers. 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 DMA-SR 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.

KPIs Policy makers				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Contacts with policy-makers (planned)	-	3	7	10
Contacts with policy-makers (achieved M16)	5	1	-	5

Table 5: KPIs policy-maker contacts – planned/achieved

Within the first 16 months of the project, SHOTPROS got in contact with several policy-makers in the field of law enforcement training to raise the awareness of the potential of novel training technologies. The following table provides an overview of the partner, the date and the policy-maker they got in contact with. The strategies and toolkit for policy makers is currently developed and the initial draft will be reported in D1.6 in M18.

Contacts to policy makers

Partner	Date	Contact Description
AIT	09.09.2019 – 10.09.2019	European strategic research agenda in defense 2021 – 2027 Sebastian Egger-Lampl gave an overview of envisioned SHOTPROS development and the potential abilities of VR training for decision making and acting in different use cases (police, firefighters, military). This was followed by a discussion about the opportunities to integrate SHOTPROS topics in the upcoming strategic research agenda.
USE / BP	10.09.2019	Police President in Berlin Meeting between Markus Murtinger (USE), Ivo Engelmann (BP), Dr. Barbara Slowik (Police President in Berlin), Marco Langner (Vice Police President in Berlin), and the Heads of the Berlin Police Department to present and discuss the topics of SHOTPROS.

USE / AIT	20.11.2019	OSCE Meeting of the police academy network (PAN) SHOTPROS got invited and Markus Murtinger got a lot of follow up questions after his talk. Afterwards they had a discussion for our Lea Network with Bulgaria, Macedonia, the Ukraine and the Assistance Director of Interpol.
USE	23.11.2019	German association of police trainers SHOTPROS got invited to the “PiD Fachseminar” in Wiesbaden and was represented by Markus Murtinger. He held a presentation about the project and the potential of future police training.
USE	31.01.2020	Secure Societies “project to policy kick off seminar”
KUL	16.06.2020	FCT - follow-up workshop on legal and ethical clarifications Community of users’ workshop on research data in fighting crime and terrorism – ethical and legal clarifications. European Commission – Directorate-General Migration and Home Affairs

Table 6: Contacts to policy-maker SHOTPROS (M1-M16)

2.4 Project Website

The website of the project is a key channel for communication and dissemination of SHOTPROS. It is set up in M2-3 and will be available by M4. Its content includes information about the project's objectives, activities, and progress of work, events, consortium partners, accomplishments and results. USECON will update this website periodically with information provided by all the partners. The design of the website is conform with the visual identity of SHOTPROS.

KPIs for the Website				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Number of unique visitors on the website (planned)	1500	1500	1500	4500
Number of unique visitors on the website (achieved M16)	2275	1744	-	4019
Cumulated number of referring websites (planned)	2	5	10	10

Cumulated number of referring websites (achieved M16)	8	1	-	9
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Table 7: KPIs Project Website - planned / achieved

The website has been developed and launched after all partners got the chance to check it and provide feedback. Since then, it has been updated by USECON with all relevant information about the progress of the project. In M9-M10, the website was re-designed to increase the usability and enhance the visual appeal. The 2 figures below show the difference between the first and the re-designed version of the website, both conform to the visual identity.

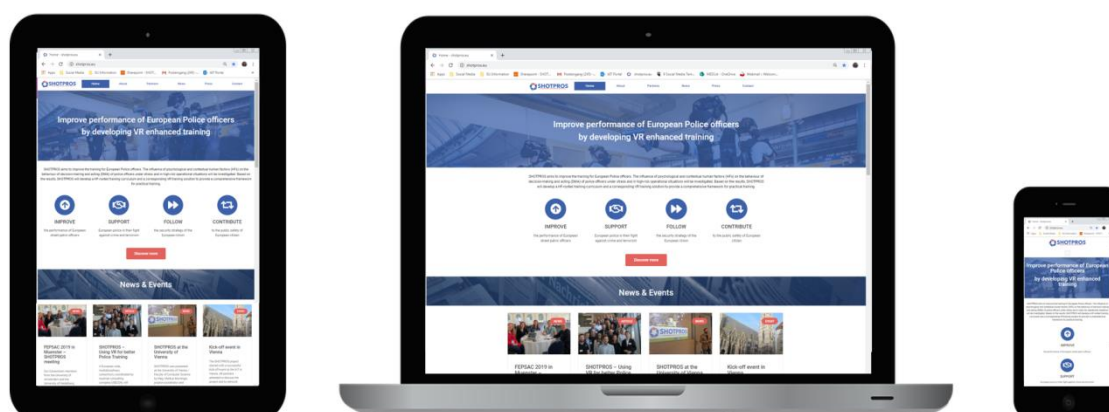


Figure 1: SHOTPROS Website (M3)

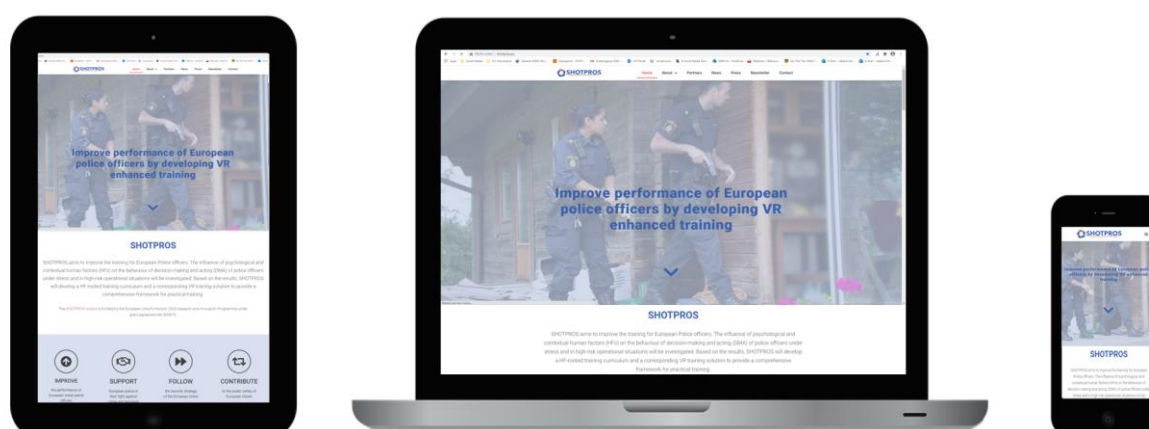


Figure 2: SHOTPROS Website (M10)

Content

The website has been updated with all significant project developments since the launch in M3. In addition to the general project information, several articles in the news section, a press section with the press releases and download materials and a subscription form for the newsletter have been added.

The articles in the news section cover the following topics

- Kick-off event in Vienna
- SHOTPROS at the University of Vienna
- SHOTPROS – Using VR for better Police Training
- FEPSAC 2019 in Muenster – SHOTPROS Meeting
- SHOTPROS Requirement Workshops in Progress
- SHOTPROS meets the Police President in Berlin
- SHOTPROS 2nd Consortium Meeting in Leuven
- SHOTPROS at the OSCE
- Site Visits at SHOTPROS Law Enforcement Agencies
- Research Update: SHOT-COVID19 study
- SHOTPROS 3rd Consortium Meeting (Online)
- Creation of prototypical Virtual Reality Scenarios
- Police study: Comparison of technology enhanced training modalities

2.5 Social Media

All of the SHOTPROS social media channels will be used throughout the whole project duration and existing social media channels and websites of the partners will be used to communicate the project to their specific target audiences in their preferred languages. The goal is, to increase the impact of communication and achieve interaction and engagement with the targeted audiences.

KPIs for Social Media - Plan				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Number of SHOTPROS posts in social networks (planned)	20	20	20	60

Number of SHOTPROS posts in social networks (achieved M16)	102	21	-	123
Cumulated number of social media community gathered across social media sites (group members, followers, page likes) (planned)	100	125	150	150
Cumulated number of social media community gathered across social media sites (group members, followers, page likes) (achieved M16)	202	220	-	202
Cumulated number of social media reactions (likes, comments, shares, retweets) (planned)	100	125	150	150
Cumulated number of social media reactions (likes, comments, shares, retweets) (achieved M16)	846	1107	-	1107
Quality of social media comments: neutral, positive, negative	Neutral or positive social media comments			

Table 8: KPIs for Social Media – planned / achieved

The social media channels were set up and used to promote the project according to the strategic plan in D8.1. This has been done with the support from all partners and their institutional channels. SHOTPROS raised a lot of positive awareness in the media and over-fulfilled the KPIs set for social media in M16. Through the collaborative effort, SHOTPROS successfully managed to reach the KPIs for year 3 in M16 already.

The links to the channels are presented below:

- Twitter: <https://twitter.com/shotpros>
- LinkedIn Group: <https://www.linkedin.com/groups/8797842/>
- ResearchGate: <https://www.researchgate.net/project/SHOTPROS-A-HUMAN-FACTORS-BASED-VR-TRAINING-FRAMEWORK-FOR-DECISION-MAKING-AND-ACTING-CAPABILITIES-UNDER-STRESS-AND-IN-HIGH-RISK-SITUATIONS-FOR-EUROPEAN-LEAS>
- Facebook: <https://www.facebook.com/shotprosh2020>

2.6 News and media coverage

Press releases will be generated to target the general media and special interest media. Press releases are created for communication with the public and defined stakeholders to raise awareness for SHOTPROS and to inform about the project progress. The press releases will be written in German and English by WP8 leader USECON and sent out to all partners. The consortium members will forward them to their press contacts and, if necessary, translate them in their native language beforehand.

The **periodical newsletter** will be available for the specific target audiences, as well as for the general public. The topics of the newsletter will correspond with the overall strategy and the current accomplishments and events of the project. Depending on the interest and reach of the newspaper, we are planning to adapt the content for different target audiences.

KPIs for Press & Media Coverage				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Number of press releases delivered to media (planned)	1	1	1	3
Number of press releases delivered to media (achieved M16)	2	0	-	3
Newsletter distribution (planned)	1	1	2	4
Newsletter distribution (achieved M16)	1	0	-	1
Number of references in media (offline and online) (planned)	1	2	5	8
Number of references in media (offline and online) (achieved M16)	20	3	-	23
Quality of media references (offline and online): neutral, positive, negative	Neutral or positive media comments			

Table 9: KPIs Press & Media coverage - planned/ achieved

In the first 16 months of SHOTPROS, two press releases were written and delivered to the media. USECON provided the German and English version of the press releases (see Annex II) and all partners supported by forwarding them to their contacts.

The first **“kick-off”-press release** introduced the project, the objectives and potential in a general manner. It was delivered to the media by the partners in the end of M2. The project received a great resonance in the European media and articles about SHOTPROS were published in several languages and countries.

The **second press** release about the SHOT-COVID19 study was published in M12-M13. At that time, the corona crisis spread across Europe and UHEI investigated the stress of police officers during the crisis. The topic COVID19 was really present in the media and the press release got published in several (online-)newspapers.

SHOTPROS got published in 23 different European (online-)newspapers so far, which is highly satisfactory. The complete list of references and the press releases in English can be found in the Annex III.

The first official **SHOTPROS Newsletter** (see Annex I) was sent out in M12 to inform the interested subscriber about the advances and main accomplishments of the project. The content and style of the newsletter can be found in the annex. Based on the report from the used newsletter tool “cleverreach”, the opening (31%) and click rate (25%) of the newsletter indicate a high response rate.



Figure 3: Newsletter Report

2.7 Printed Materials

Printed materials for policy-makers and end users: Project brochures and other printed materials (at least 5 sets throughout the project) will be prepared as the project advances for distribution among SHOTPROS’ target groups, but with a special focus on the target groups of policy-makers and end users. Also, general project brochures and printed materials (at least 5 sets throughout the project) for presentation during workshops and

during participation at national and international events for the general public (e.g. info days, meetings with community stakeholders, NCPs) will be prepared.

All of the printed materials will be designed in accordance with the visual identity of SHOTPROS and with all other dissemination and communication tools and channels in order to ensure a high recognition value.

Set 1

The first set of printed materials with general information about SHOTPROS was designed by USE in the first months of the project and handed out to the partners at the 2nd Consortium Meeting in Leuven. This set is mainly used to communicate the project and its objectives at events and meetings to the respective target audiences. Especially the folder was highly appreciated since it can be handed out to people interested in the project.

The figure 4 show the printed materials (left) and the flyer at the VR Days Europe (right).



Figure 4: Printed Materials (Set1)

The materials are also available as download on the SHOTPROS website:

- **Folder1:** https://shotpros.eu/wp-content/uploads/2020/04/SHOTPROS_Folder1_General_Information.pdf
- **Poster1:** https://shotpros.eu/wp-content/uploads/2020/04/SHOTPROS_Poster1_General_Information.pdf
- **Roll-up1:** https://shotpros.eu/wp-content/uploads/2020/04/SHOTPROS_Roll-up1_General_Information.pdf

Set 2

The second set of printed materials and give-aways has been designed in M10-M12. Set 2 can be seen as complement to the first one, especially for events with practitioners and policy-maker in the field of law enforcement training. It was planned to hand them out during workshops and key notes, for example at the (postponed) Joint Activity event at Campus Vesta in May 2020.

As the consortium expressed the need for branded give-aways to hand out at relevant events, USE also developed the design for pens, notepads and peanut bags. All of these give-aways are branded with the SHOTPROS logo and some do also contain the link to the website and to the social media accounts to draw more visitors on those channels.

The second set will be ordered and given to the partners once the circumstances allow for real-life meetings and events again.

2-pager1: Digital transformation in the police



Digital transformation
New technologies in law enforcement training
- Ready for the future?

All organisations active in the security domain are confronted with an increasing amount of technological developments impacting their output. Digitalisation and higher levels of technological advancement brought up solutions for several areas of application in law enforcement. These new technologies are supposed to facilitate processes and increase effectiveness in several areas of application. To maximize the impact of new technologies, especially in the area of training, several aspects must be considered beforehand.

INTRODUCTION

- New Technologies - Innovation in Law Enforcement training**
A "New Technology" is defined as currently developed methods, systems, and devices which are the result of scientific knowledge being used for practical purposes. To utilize those technologies in complex areas of application, like law enforcement training, all steps of the implementation must be planned carefully. Innovative training will not result from buying the latest gadget. It results from finding innovative ways to improve current processes with help of new technologies.
- Law Enforcement Training - Enhanced by new technologies**
Training aims to improve or develop certain skills, knowledge or capabilities that are defined in a doctrine. In this context, training is defined as the sum of several organisational elements which may vary depending on the training academy and / or the law enforcement agency. However, to successfully enhance training practices with new technologies, all of these elements must be involved in the whole integration process.

RELEVANCE - Advantages of new training technologies

The law enforcement field of action is in a constant state of change and new challenges are emerging all the time. To adapt to those challenges and to be one step ahead, innovative training is the go-forward solution.



Improve
current training practices



Enhance
efficiency in terms of money and time



Prepare
for new challenges



Maximise
the impact of training

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Digital transformation
Organizational change management - thriving approach to integrate new technologies

The strategic planning of integration of new technologies in organisations is the critical success factor to improve law enforcement training. This dynamic process must include all organisational elements that are affected by the innovation. The level of inclusion of each organisational part might slightly differ depending on the complexity and the expected impact of the technology. This document outlines the process and gives an overview of the organisational levels mostly involved in it.

THE PROCESS - How to integrate new training technologies in the organisation

Identification

Acquisition

Implementation

- Training doctrines**
Doctrines provide important guidelines across organisations on how training should be conducted and what means should be used for which training goals
» Clarify how the new technology fits in existing doctrines and which changes need to be made
» Define the goals that should be achieved with the new technology and plan how to measure attainment
- Procurement**
Budget in public security often depends on political decisions, therefore the financial scope of the technology needs to be budgeted beforehand.
» Most new technologies are products that are under constant development
» Costs for maintenance and updates must be considered
- Expertise**
With new technologies come new roles / functions to manage the systems (e.g. content development, data-scientists, graphics designers, system operators etc.).
» Are there already experts in the organisation or do we need external advisors?
» Who can operate the system? Who extracts and analyses the generated data?
- Instructors**
Didactics, training methods and techniques need to be adapted to new technologies.
» Professional development and courses for instructors will be necessary
» All involved people in the organization should be able to handle the technology
- Curricula**
New training technologies need to be in accordance with the training curricula
» Adapting the technology to fit in the framework of the organisation
» Adapting the framework of the organisation to fit in the new technology
» Agile adjusting in form of a process will be necessary

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2-pager2: VR in police training



Virtual Reality
The future of law enforcement training
Be part of it!

European law enforcement agencies' field of action constantly changes and new challenges are emerging all the time. By contrast, technological advancement brings up new solutions to better prepare police officers for those challenges every day. Virtual Reality (VR) is one of those solutions that can be utilized to enhance current training practices and maximises the impact of police training.

INTRODUCTION - Delamination of Virtual Reality



Virtual Reality
Artificial environment
Full immersion the virtual scenario

Augmented Reality
Enhanced world
Virtual objects overlaid on real-life environment

Mixed Reality
Virtual environment combined with real world
Virtual objects overlaid on real-life environment

Areas of application in law enforcement

There are several areas of application for Virtual Reality training in the law enforcement domain, such as

Training
Improve or develop certain skills by utilizing VR technology

Crime Science Investigation
VR enables the inspection of crime scenes in a virtual world, evidences can be found even if the scene is already cleaned

Surveillance, Observation & Communication
Drone recordings can be transferred to VR. Buildings can be scanned, re-built in VR and filled with live content

...and many more!

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Virtual Reality
The future of law enforcement training
Be part of it!

ADVANTAGES of Virtual Reality

- » Full immersion gives the feeling of real-life training
- » Large-scale scenarios like riots, demonstrations can be trained with less resources (personnel, budget, etc.)
- » Training sessions can focus on certain skills like de-escalation, use of force, etc.
- » Scenarios can be engineered based on specific requirements
- » Sudden changes in the training scenario can be included by the instructor
- » Evaluation & after-action review with comprehensive video recordings from several perspectives

5 THINGS you need to know about Virtual Reality training

- ❖ **The Dynamic Process**
to integrate VR Training in your organisation must be planned carefully
 - » identification - Analysis of needs and requirements
 - » acquisition - comparison of potential providers and offers
 - » implementation - Adaptation of the technology and the organisational framework
- ❖ **The Requirements**
To match the technology with the needs of your organisation. The wants and needs of training technologies might differ in every law enforcement agency. Requirement workshops with practitioners provide insights into the specific demands.
- ❖ **The Scenarios**
In Virtual Reality can be agilely developed and adjusted to meet the training goals and expected outcomes. To maximise the impact of VR training, this needs to be done beforehand and constantly adapted.
- ❖ **The Expertise**
To manage, update and operate the VR system must be provided.
 - » External or internal experts?
 - » Courses for instructors might be necessary to handle the technology
- ❖ **The Costs**
of VR training must be budgeted before purchase. Technology is under constant development and the financial scope of maintenances and update should be considered.

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2.8 VR Police Network and exchange with related projects

This task comprises two streams:

First, to establish a Europe-wide network with law enforcement agencies 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.

KPIs for the VR Police Network				
	Year 1 (M1-12)	Year 2 (M12-24)	Year 3 (M25-36)	Total
Members of SHOTPROS "VR Police Training Network" (cumulative) (planned)	10	20	30	30
Members of SHOTPROS "VR Police Training Network" (cumulative) (achieved M16)	**	**	-	
Exchange with related projects (cumulative) (planned)	1	2	5	5
Exchange with related projects (cumulative) (achieved M16)	6*	3	-	

Table 10: KPIs for VR Police Network – planned / achieved

* Plus the projects invited to the joint activity (see table 11)

** The VR Police Network is currently developed based on a KPI-framework as described in D8.10 and in chapter 3 of this deliverable. At this stage of the project, we have gathered a lot of contacts / potential members (from LEAs, companies, research institutions, other projects) and keep them informed about SHOTPROS and the development of the network. Once the VR Police Network is finally elaborated, those contacts will be invited to join the network.

Contact with related projects

Rel. Project	Date (from)	Contact Description
AUGGMED	11/2019	USE and AIT were in contact with AUGGMED, got informed about the (public) results of the project and discussed potential future collaboration in EU projects. VUA had a meeting with GeoMobile (partner in the H2020 Auggmed project) to learn about the implementation of VR and its advances within the Auggmed project. They tried out the VR platform that the Auggmed project developed.
Proactive	01/2020	SHOTPROS (represented by the coordinator, Markus Murtinger) was part of the "Project to Policy kick-off seminar" hosted by the EC in Brussels. The project PROACTIVE was also present and they got in contact. Further collaboration was

		planned, such as the joint activity event at VESTA in May 2020 which was postponed due to COVID.
TARGET	01/2020	BP met two representatives from TARGET at the University of Applied Sciences for the Police of Brandenburg. The visit was an opportunity to foster the cooperation between the Berlin and Brandenburg police training institutions and for further exchange in the field of future-oriented technologies and alternative learning methods, especially in the area of VR / AR. Police Brandenburg is also a possible network partner for our project.
eNotice	03/2020	SHOTPROS and eNotice planned the Joint Activity and VR trial day at Campus VESTA together. The event was initially planned to be conducted in May 2020 but had to be postponed due to COVID19.
9 projects invited to Joint Activity in May 2020	04/2020	Several European projects got invited to the planned event (Joint Activity eNotice & SHOTPROS) at Campus VESTA. The event had to be postponed, however, the following project received the official invitation including information about the SHOTPROS project: eNotice, ProActive, Toxi-triage, No Fear, Driver+, I-LEAD, ILEA NET, ENLETS, INCLUDING
iLEAD	04/2020	VESTA and iLEAD are in contact regarding network topics and knowledge exchange.
VRinSight	05/2020	USE was in contact with VRinSight and got offered the possibility to publish an article about the SHOTPROS project in their Green Paper → https://www.enter-network.eu/3d-flip-book/focus-europe-vrinsight-greenpaper/
E.N.T.E.R Network	05/2020	USE had several calls and E-Mail conversations with the E.N.T.E.R Network and exchanges experiences about VR in training and education. The SHOTPROS project joined the Network and is published on the website for dissemination and communication. https://www.enter-network.eu/project/shotpros/
LAW-TRAIN	continuously	Learnings and outcomes from LAW-TRAIN are continuously taken into account from the SHOTPROS partners that were also involved in the LAW-TRAIN project.

Table 11: Contact with related Projects (M1-M16)

2.9 Research activities

Research activities were not explicitly named as communication channel in D8.1, however, a huge number of practitioners, trainers and other potential end-user received information about the project by being part of the research studies conducted in SHOTPROS.

Abbreviation	WP	Study Topic	Date	Partners
Requirement Workshops	WP2	Requirement analysis: 2-day workshops with police officers and police trainers from various European LEA's (with a total of 60 participants) and several interviews	08.2019 – 10.2019	KUL; USE; all LEAs
TrainPrac	WP3	Analytics and Validation of Current Training Practices of European LEAs	12.2019 - 03.2020	VUA; all LEAs
EnschVR	WP3	Comparison between reality-based scenario training and VR scenario training	01.2020 - 02.2020	VUA; Dutch Police; RE-liON
RottVR	WP3	The impact of type of instruction and level of experience on learning and VR training experience	05.2020 - 06.2020	VUA; AIT; Dutch Police
ZüriVR	WP3	The effect of different feedback options and the addition of a pain stimulus on the (learning) experience of Swiss police officers in VR training	06.2020 - 08.2020	VUA; AIT; Stadtpolizei Zürich
VRFrame	WP3	VR framework for police training and assessment	02.2021 - 04.2020	VUA
Case Study	WP4	Police Officer's Psychophysiological Stress Reactivity on Duty	09.2019 – 10.2019	UHEI, VUA, BP
Field exercise	WP4	Assessment of physiological stress responses during field exercise at Campus Vesta	Cancelled COVID	UHEI, VUA, AIT, Campus Vesta
SHOTCOVID	WP4	Police officers' work demands, stressors and coping strategies during COVID19 crisis	03.2020 – 06.2020	UHEI, AIT, VUA, KUL, BP, Dutch Police

Paintball Study	WP6	Performance under Physical and Psychological Stress	11.2020 – 12.2020	UHEI, AIT
BerlinStress	WP6	Initial Stressors Assessment	Postponed COVID	AIT, UHEI, UBP

Table 12: Research activities SHOTPROS (M1-M16)

2.10 Other Activities

Beside the proposed communication channels and activities from D8.1, our consortium members carried out dissemination activities during meetings or trainings. The following table provides an overview of the efforts taken:

Activity	Partner	Person	Date	Description/ Comment
SHOTPROS at the University of Vienna	USE	Markus Murtinger	29.05.19	During his talk “Future Trends in the area of HCI & User Experience Markus gave an overview and outlook about “SHOTPROS” at the University of Vienna / Faculty of Informatics.
Meeting Rheinmetall Man Military Service	USE	Markus Murtinger	04.11.19	Markus had a meeting at Rheinmetall Man Military service and discussed the potential of VR training in the field of military truck maintenance. Current barriers and problems outlined and possible improvements regarding the in-service training of military mechanics discussed
Interdisciplinary Virtual Reality Meeting	VUA	Tilo Hartmann, Vana Hutter, Lisanne Kleygrewe	03.12.19	During the meeting with Tilo Hartmann (head of the department of communication sciences at VUA and co-founder of the VR@VU group) various VR-related topics have been discussed. Research-related experiences and areas of interests within VR were shared. Shotpros played a large role in the conversation and the project was met with enthusiasm.
Speech at training days in Twente	VUA	Vana Hutter, Matthijs Koedijk	28.01.20	At the training days in Twente, VUA has given a talk about SHOTPROS and the research to representatives of the military, fire fighters, and police academy (is a different party than national police here in the Netherlands). All in all a group of about 20 people in total.

Meeting Police of Antwerp	VESTA	Floor Lams	01.02.20	Conversation with Police of Antwerp (intelligence) about the SHOTPROS project. They are involved in EU projects as well and want to know more about our results.
Meeting City Police Zurich and Refense AG	VUA	Lisane Kleygrewe (VUA) Christoph Altmann (City Police Zurich) Sandro Büchler (City Police Zurich) Andreas Capeder (City Police Zurich) Ronny Tobler (Refense AG)	02.03.20	VUA visited with the City Police Zurich to test the Refense AG VR system and talk about research possibilities for their training days in June and July.
Meetings DangerZone	VUA / NPN	Raoul Oudejans, Vana Hutter, Tess Dekker, Ronald Tieman, Lisane Kleygrewe	15.10.19 18.03.20 07.05.20 08.05.20 11.05.20 12.05.20	In-person and online meetings with representatives of Dutch police and police academy (PA) to discuss study with the VR Danger Zone system for students of PA to train (eventually, at home training VR during COVID-19 crisis). Trainers and teachers will make a training plan. Team VUA will think of measurements and research proposal for this study that will take place in a couple of weeks. Collaboration is great; everyone is excited about the possibilities.
Meeting Berlin Fire Department	BP	Manfred Strzeletz, Ivo Engelmann	16.05.20	Berlin Police presented SHOTPROS to the Fire Department of Berlin and discussed

				potential synergies on the topic of Virtual Reality training
Meeting UHEI and Police Academy Baden-Württemberg	UHEI	Laura Giessing	18.08.20	Laura discussed possible research collaborations with Volkmar Hackbart and presented the SHOTPROS project. He is the deputy head of the institute's operational training department and is a contact from Alex Schäfer (LAFP NRW).
Presenting SHOTCOVID Results at the Polizeipräsidium Mannheim	UHEI	Marie Ottilie Frenkel, Laura Giessing	18.09.20	The results of the SHOTCOVID study were presented and discussed with a panel of police leaders at the PP Mannheim including the Polizeipräsident Andreas Stenger. Additionally, the aims and research activities within SHOTPROS were presented.

Table 13: Other comm./diss. Activities (M1-M16)

3 Report on VR and Police Network

This introduction includes the developed vision on the network, the desired orientations of the network and expected orientation of the network, as expressed by the SHOTPROS consortium partners. The partners decided on the first six KPI's, following the proposed methodology as described in D8.10. In this progress report the first six KPI's are discussed. Furthermore, the next steps to define the other 10 KPI's are presented. On top of that, the plan of action for year two and three of the SHOTPROS project, concerning the development of the Police VR Technology Network, are included in the progress report. Furthermore, to unite Law Enforcement Agencies, interested in VR and Police even before the official start of the network, a website will be launched to share all relevant information with the SHOTPROS-community.

Year 1	Year 2	Year 3
Brainstorm with consortium partners about the development of the network	Launch (temporary) online platform	Present network at events, consortium meetings of other projects, other network activities,...
Decide on the first KPIs (6/16): start developing the network	Organize own webinars with SHOTPROS results and VR technology in Police	Set up official network and official platform
Scan the market for partners, industry, network members, synergies, events.	Methodology: 16/16 KPI's	Develop methodology based on feedback loops
Link with EUM: list of interested end users and SPOC's of (external) LEAs in Europe	Scan the market for partners, industry, network members, synergies, events.	Scan the market for partners, industry, network members, synergies, events.
Organize event: Campus Vesta - VR Trial Day + Joint activity with H2020 eNOTICE	Organize event: Campus Vesta - VR Trial Day + Joint activity with H2020 eNOTICE	Organize webinars and training sessions
Explore financial possibilities (business plan)	Present the network at other network events, consortium meetings,...	Embed Financial sustainability
Seek for possibilities to share knowledge and information (online platform)	Explore financial possibilities	Organize Final Conference at Campus Vesta

Figure 5: Planned Actions VR Police Network (per project year)

3.1 Methodological approach

As described in D8.10 a KPI based framework is used for building the VR Police Network. The KPIs seek answers to 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? How is the sustainability of the network ensured? When was the network established?

Due to the fact that there has been only one consortium meeting in real life, most of the discussions about the completion of the KPIs is done by virtual meetings and online surveys. We aim to discuss all KPIs, presented in Fig. 6 by the end of year 2.

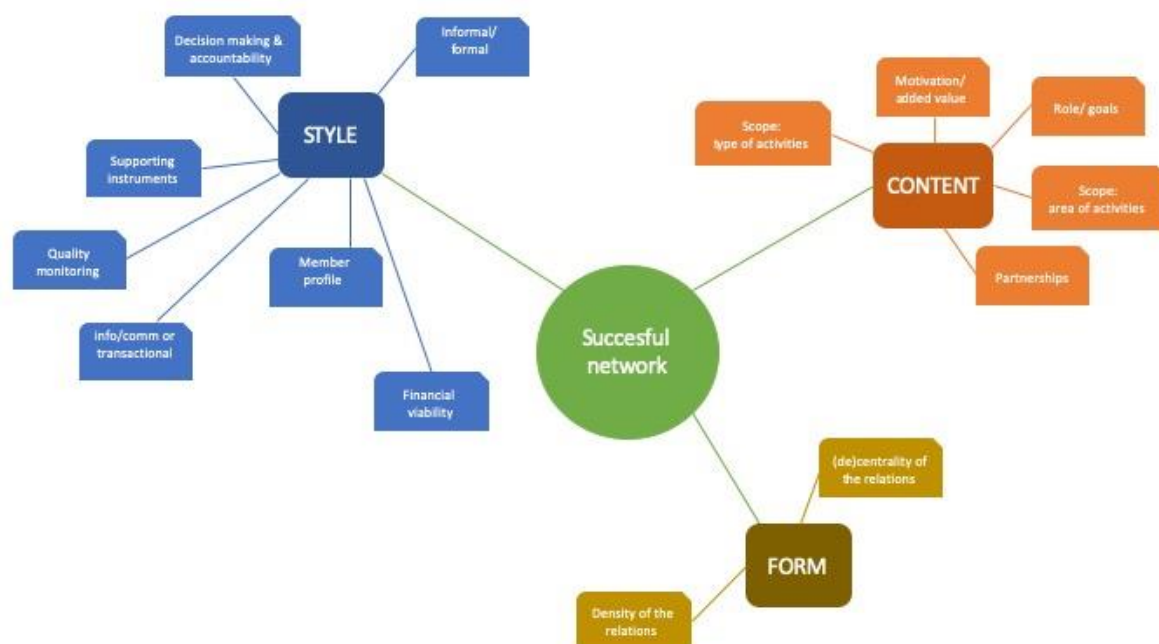


Figure 6: Visual overview of all KPIs to build a successful network

3.2 Status of the methodological approach

The development of the network is based on the methodological approach of 16 KPIs. As mentioned above, six out of sixteen KPIs are already defined. Three out of sixteen are ongoing (decision is pending) and the other seven KPIs will be decided on in year two of the SHOTPROS project.



Figure 7: status of the methodological approach

(Green = decided on - Yellow = ongoing - Blue = to be decided on)

3.3 KPI's decided on

1. Mission

What does the network fulfil? What should the added value of the network be for the members?

'The mission of the Police VR Technology Network is to enhance and encourage the use and development of Virtual Reality for Police through joint efforts of EU Law Enforcement Agencies and other stakeholders.'

2. Scope

The scope of the network defines and delimitates the field(s) or disciplines covered by the network and the appropriate types of activities. The official name of the network is determined: Police VR Technology Network. To develop a sustainable network, the SHOTPROS consortium partners have decided to work in two phases. The first phase will take place during the SHOTPROS project, the focus of the network will be on VR and Training. Later on, in phase two, after the SHOTPROS project, the network will keep focussing on the VR and Training part but other VR technologies will be added to the scope of the network.

3. Goals

Five goals are to be achieved to result into a successful sustainable network:

- To provide a platform/forum to structurally connect LEAs across Europe
- To collect share and develop knowledge and experience about VR Police
- To connect ongoing VR Projects
- To collect and share technical aspects and opportunities concerning VR Police
- To share, promote and encourage the further development and exploitation of SHOTPROS results.

4. Activities

To achieve the predetermined goals the network needs to organize its own activities. A list of 11 activities were defined by the partners.

- Communication of knowledge, framework, toolkits and outputs of SHOTPROS to the members' national management and training academies to raise the awareness on the topic.
- Exchange of experiences among LEAs about training methods.
- Organisation of Network meetings for the network members (events and conferences).
- Exchange of experiences among LEAs about VR techniques and VR developments.

- Expert discussions with the aim to create future scenarios and contexts for VR Police Training as a function of the web-based platform.
- Exchange of experiences among LEAs about DMA strategies.
- Setting up a webbed platform to create a virtual forum for the network members to exchange information and knowledge, connect and interact.
- Evaluation and comparison of outputs from SHOTPROS and other European VR Projects.
- Transformation of academic knowledge from SHOTPROS results to the language of the practitioners. Report into presentation.
- 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.
- Advertisement of existing VR Police Related activities.

5. Members

The SHOTPROS-consortium partners decided to extend the membership list to external members (outside the SHOTPROS consortium). Defined members for the network are:

- Law Enforcement Agencies
- Researchers and research organizations involved in VR Police Projects
- Organizations developing tools in VR Police
- Policy makers dealing with VR Police
- Other LEA Networks
- Other VR Networks
- Specialized Police Organizations (Intelligence services, special forces,...)
- European organizations dealing with (VR) Police (Europol, Interpol,...)
- Decision makers dealing with VR Police
- Industry in VR Police
- Other public safety and security disciplines
- Other first responders (fire fighters, medical staff, defence, Civil Protection, Customs...)

6. Geographical Scope

To determine the geographical scope of the network the consortium partners prefer to work in two phases. In phase 1, during the SHOTPROS-project, the geographical scope is narrowed down to European LEAs and network members. In Phase 2, after the SHOTPROS-project, LEA's and network member can join from beyond Europe.

3.4 Ongoing KPI's

7. Partnerships

First, we did a mapping of existing organizations and networks to make sure that we did not duplicate existing work. We seek for support and mutual reinforcement. There are several possible partnerships defined. In year two of the SHOTPROS project the defined possible partner projects (EU and non-EU) will be approached to see how they can enhance the Police VR Technology Network and vice versa, how the niche Police VR Technology network could complement other networks or projects. The SHOTPROS consortium partners will contribute in the decision of taking on partnerships.

8. Supporting instruments

By launching the network website the first supporting instrument for information sharing and communication between community members has been started. By sharing information, organizing webinars and gathering the contact details of interested community members we provided an important supporting instrument for the Police VR Technology Network.

9. Duration of the network

It is stated in the DoA that the network should be sustainable. The official network starts at the end of the SHOTPROS project (after year 3). That's why we are now developing a community to smoothly transfer into the self-sustainable network.

3.5 KPI's: next steps

The next seven KPIs will be decided on in year two of the SHOTPROS project. The specific interpretation of the next KPIs are explained in D8.10.A survey will be sent out to all consortium partners to start filling in the fundamentals of these KPIs. If the next Consortium Meeting in M19 cannot be conducted in real-life, the KPI's will be defined upon by organizing an online workshop.

10. Leadership

11. Informal vs formal character

12. Type of network

13. Decision making and accountability

14. Quality management

15. Financial viability

16. Architecture and relation

3.6 Plan of Action: M1 – M12 (year 1)

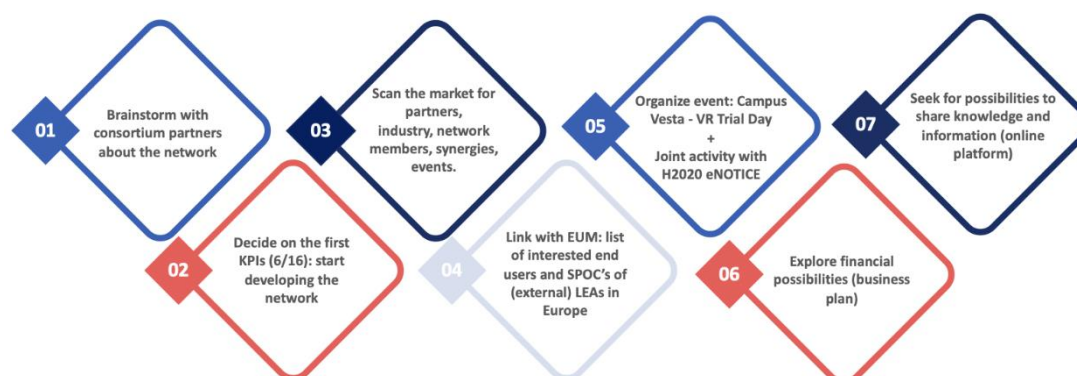


Figure 8: Plan of action: M1 – M12

Up until now, the development of the network is going as planned. Already 6 out of 16 KPIs are fully agreed on by the consortium partners. A first network event was planned in May 2020 but was postponed due to COVID-19. The VR Trial Day at Camus Vesta would have given the SHOTPROS consortium partners and the developing network the opportunity to relate with 9 different EU projects. The VR Trial Day was planned to be a joint activity with another H2020 project: eNOTICE. This event has been postponed to May 2021. During the first year a market scan of related EU networks and projects was accomplished as well as a first database of SPOC's from external LEA's that confirmed their interest to join the network.

3.7 Plan of Action: M12 – M24

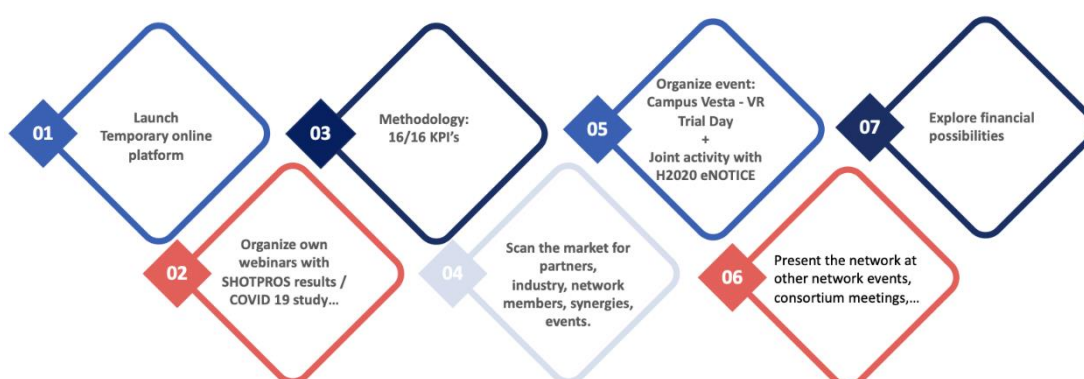


Figure 9: Plan of action: M12 – M24

The first step in the plan of action for the development of the network during the second year of the project is to launch the network website. This website gives us the opportunity to share knowledge and information with external LEAs within our community. Also, a webinar series will be hosted to stay in contact and share knowledge with external LEAs and other stakeholder interested in VR & Police topics. In that way we can contact the SPOC's of the LEAs that joined our webinar to inform them more about our Police VR Technology Network and invite them to join us as a member.

Furthermore, the KPIs will be completed (16/16) and the methodology will form a strong fundament for further development of the network.

Scanning the market for opportunities is an ongoing task. The development of the network requires a constant scanning of possible industry partners, new members, interested policy makers, synergies with other (EU) networks and events.

In 2021 the postponed VR Trial Day will take place at Campus Vesta together with the Joint Activity of the H2020 project eNOTICE. This event will be the first event to meet external contacts and potential future network members.

The next step in the plan of action for the second year is to present the Police VR Technology Network at events, consortium meetings, other network activities etc. Another ongoing task for the second and the third year of the SHOTPROS projects is to explore financial possibilities for the network. A business plan is will be developed to make sure the network can work sustainably after the SHOTPROS project has ended.

3.8 Plan of Action: M24 – M36

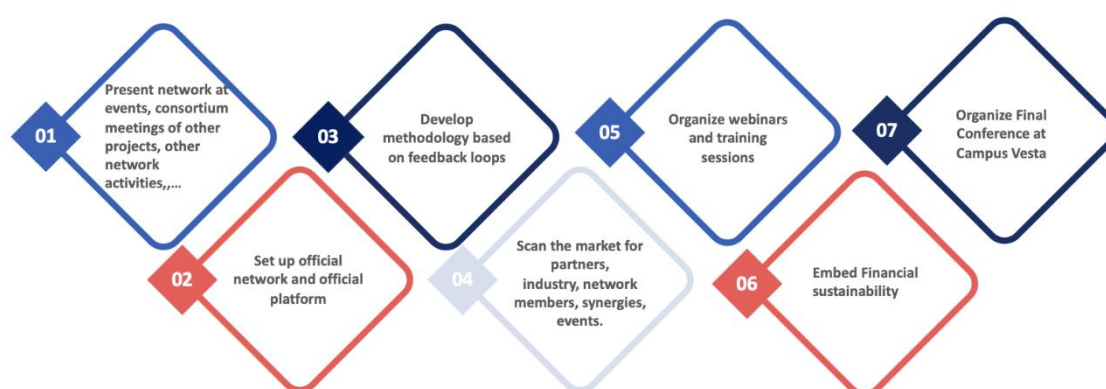


Figure 10: Plan of action: M24 – M36

The first step in the plan of action for the development of the network during the third year of the project is to present the network at events, consortium meetings of other projects,

other network activities etc. In the scope of WP7 there will be a lot of opportunities to expand the Police VR Technology network by inviting external LEAs to the field trials.

The second step is to enlarge the network website into an official network platform preferably with a closed area only for members. This closed area on the platform will give the invited members the opportunity to share relevant information with other LEA organizations in a safe way. LEAs who are interested to join the network get in touch by filling in the contact form on our online platform.

A third action point is to do quality monitoring focused on the defined methodology (KPIs). By using feedback loops the members of the network can change goals, activities, scope or other KPI's if they find it necessary. Scanning the market for opportunities is an ongoing task. The development of the network requires a constant scanning of possible industry partners, new members, interested policy makers, synergies with other (EU) networks and events.

To reach as many potential members as possible, the network will keep organizing webinars, (online-) meetings and (online-) workshops. The first official event and network meeting is planned in the third year of the SHOTPROS project at Campus Vesta during the final conference.

4 Summary and next steps

All in all, the dissemination and communication in SHOTPROS has been carried out successfully and the desired goals were achieved in the first 16 months of the project. The SHOTPROS partners will certainly continue to promote the outputs of the project in order to ensure the widest possible reach to all identified target groups. In the next months, it is of central importance to plan activities agile and take into account that changes might be necessary due to governmental measures which affect events, conferences and real-life meetings. USE and all other partners are collaboratively elaborating strategies to promote the project under the given circumstances.


An outlook on the upcoming dissemination and communication activities for the next months is presented below and will be reported in D8.9.

- **Webinar Series** on VR & Police Topics, M18-M20, 4 Webinars to inform and connect interested stakeholder in the domain and to build a basis for the VR & Police Network
More information: <https://shotpros.eu/network/>
- **Booklet** about *VR Provider Landscape in Europe* and knowledge exchange with the respective VR companies

- **VR Police Network:** further development as described in chapter 3
- **Contact with other projects / networks:** has already been established and will be fostered in the next months to share experience and to build on pre-existing activities
- **Research Studies** that involve LEAs will be conducted and the participants will receive information about the project and the outcomes
- **Scientific Dissemination:** will be carried out by the research partners to inform the academic community about the results from the conducted studies of the project
- **Events / Workshops** can hopefully take place again in real-life by 2021 again, planning for the postponed Joint Activity at Campus VESTA in ongoing, other activities are planned with respect to the given circumstances (COVID)
- **All other activities** such as (online-)meetings, social media communication, newsletter, press releases and website maintenance will be continued as planned


Annex


Annex I: List of referring websites

Organization	Berlin Police - Der Polizeipräsident in Berlin
Title	News post on the website of the Berlin Police
Date	29.05.2019
Link	https://www.berlin.de/polizei/polizeimeldungen/pressemitteilung.823998.php
Screenshot	

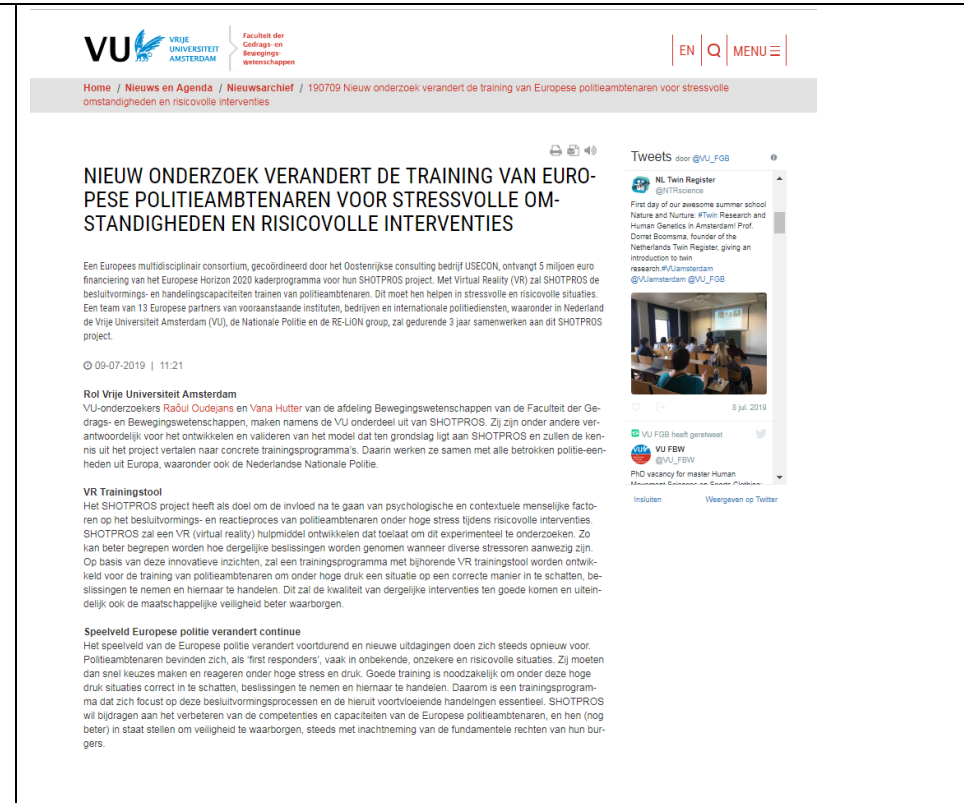
Organization	USECON
Title	Article in Newsfeed (featured)
Date	12.06.2020
Link	https://www.usecon.com/shotpros-einsatz-von-vr-training-im-polizeilichen-bereich/


Screenshot	 <p>SHOTPROS – Einsatz von VR-Training im polizeilichen Bereich</p> <p>Das Horizon 2020 Forschungsprojekt SHOTPROS widmet sich den „Entscheidungs- und Handlungsprozessen“ in Stress- und Hochrisikosituationen von europäischen Polizeibeamten und Polizeibeamtinnen. Ein europaweites, multidisziplinäres Konsortium wird in den nächsten 3 Jahren unter der Führung von USECON neue Trainingsansätze für die Polizei entwickeln. Mithilfe von VR-Lösungen sollen „First Responder“ (polizeiliche Erstkräfte) auf hochrisikante Einsatzsituationen, wie z.B. Terroranschläge, Schusswaffenangriffe oder Amokläufe vorbereitet werden.</p> <p>SHOTPROS unterstützt europäische Polizeikräfte bei aktuellen Herausforderungen</p> <p>Durch neue Bedrohungs- und Risikoszenerien der letzten Jahre haben sich die Herausforderungen an die europäische Polizei stark verändert. Streifenpolizisten und Streifenpolizistinnen sind immer häufiger in der Rolle als First Responder in bedrohlichen und kritischen Szenarien involviert. Dadurch entstehen für sie extreme Stress- und Leistungssituationen. Für das Lösen dieser kritischen Situationen ist die Fähigkeit, die richtigen Entscheidungen zu treffen, ein wesentlicher Faktor für den erfolgreichen Ausgang der Situation. SHOTPROS setzt an diesem Punkt an und entwickelt ein Trainingsprogramm sowie eine VR (Virtual Reality) -Lösung um diese Szenarien zukünftig zu trainieren und damit die Leistungsfähigkeit der europäischen Sicherheitsbehörden weiter zu verbessern.</p>
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Organization	Romanian Ministry of Internal Affairs - RMIA
Title	Press release – Romania
Date	21.06.2019
Link	http://www.comunicare.mai.gov.ro/stiri.php ; http://www.cercetare.mai.gov.ro/evenimente/
Screenshot	 <p>Evenimente</p> <p>Proiectul european de cercetare-dezvoltare SHOTPROS (Data publicării 21.06.2019)</p> <p>SHOTPROS</p> <p>Pregătire – Decizie – Acțiune.</p> <p>Un consorțiu european multidisciplinar – din componența căruia face parte și Ministerul Afacerilor Interne prin Direcția Generală Logistică – coordonat de compania austriacă USECON, primește în cadrul Programului Cadru European pentru Cercetare și Inovare „Orizont 2020” un grant de peste 5 milioane de euro din partea UE pentru implementarea proiectului SHOTPROS – A human factors based (virtual reality) training framework for decisionmaking and acting capabilities under stress and in highrisk situations for european Law Enforcement Agencies. Cu ajutorul realității virtuale, SHOTPROS va pregăti forțele de primă intervenție în ceea ce privește capacitatea de adoptare a deciziilor și de acțiune în cazul situațiilor de stres și risc ridicat, pentru a combate criminalitatea, terorismul, amenințările CBERNE și radicalizarea.</p> <p>Un nou proiect sprijină poliștii europeni în provocările lor</p> <p>Domeniul de acțiune al poliștilor europeni din stradă este în continuă schimbare, apărând mereu noi provocări. Asigurarea primei intervenții în situații noi și ambigue, cu risc ridicat, expune poliștii la niveluri mari de stres și presiune asupra performanței. Este nevoie de personal foarte bine pregătit pentru a evalua corect situația și pentru a decide și a acționa în mod corect sub presiunea stresului. Prin urmare, un cadru de pregătire a capacității de adoptare a deciziilor și de acțiune este soluția avansată pentru a sprijini forțele de primă intervenție în situații ameninșătoare. SHOTPROS va contribui la îmbunătățirea competențelor și a capacității autorităților europene de aplicare a legii pentru a preveni și diminua impactul actelor infracționale, protejând în același timp drepturile fundamentale ale cetățenilor europeni.</p> <p>Procese de adoptare a deciziilor și de acțiune îmbunătățite prin antrenament în mediul virtual</p> <p>SHOTPROS va dezvolta o soluție de cercetare în mediul virtual pentru a evalua experimental gradul în care diverși factori umani influențează comportamentul la adoptarea deciziilor și acțiunilor. Ulterior, proiectul va dezvolta o programă de formare și o soluție tehnologică de antrenament în mediul virtual pentru a oferi un cadru cuprinzător de pregătire practică a procesului decizional și de acțiune în situații de criză și risc ridicat. Stresul factorilor umani poate fi manipulat în mediul virtual pentru a individualiza antrenamentul și pentru a fi face mai valoros. Antrenamentul poliștilor în mediul virtual, care îi pregătește pentru incidentele din viața reală, îmbunătățește succesul operațiunilor polițienești și contribuie la securitatea civilă.</p> <p>Coordonatorul SHOTPROS, Markus Murringer, subliniază relevanța acestui proiect: „Metodele de formare existente se axează în principal pe formarea competențelor. Sunt neglijate procesele de luare a deciziilor și de acțiune, precum și impactul stresului asupra acestor procese. Obiectivul nostru este de a crea un cadru de pregătire consolidat de realitatea virtuală și de a schimba metodele de pregătire a autorităților de aplicare a legii, în vederea îmbunătățirii proceselor de luare a deciziilor și pentru a reduce utilizarea forței, daunele colaterale și situațiile scăpate de sub control.”</p>

Organization	AIT
Title	News post at the AIT website
Date	01.07.2019
Link	https://www.ait.ac.at/news-events/single-view/detail/5967/
Screenshot	 <p>AIT > News & Events ></p> <h2>SHOTPROS: EINSATZ VON VIRTUAL REALITY IM POLIZEILICHEN BEREICH</h2> <p>27.06.2019</p> <p>Das Horizon 2020 Forschungsprojekt SHOTPROS widmet sich den „Entscheidungs- und Handlungsprozessen“ in Stress- und Hochrisikosituationen von europäischen PolizeibeamtInnen.</p> <p>Das SHOTPROS Team umfasst 13 Projektpartner, die in den nächsten 3 Jahren gemeinsam an diesen Zielen arbeiten. Dazu gehören renommierte europäische Forschungseinrichtungen, internationale Unternehmen sowie sechs polizeiliche Behörden. Mithilfe von Virtual Reality (VR)-Lösungen entwickelt das europaweite, multidisziplinäre Konsortium gemeinsam mit führenden Polizeibehörden innovative Trainingsverfahren für „First Responder“ (polizeilichen Erstkräften) in hochriskanten Einsatzsituationen, wie zum Beispiel Schusswaffenangriffen, Amokläufen und Terroranschlägen.</p> <p>SHOTPROS unterstützt europäische Polizeikräfte bei aktuellen Herausforderungen</p> <p>Durch neue Bedrohungs- und Risikoszenerarien der letzten Jahre haben sich die Herausforderungen an die europäische Polizei stark verändert. StreifenpolizistInnen sind immer häufiger in der Rolle als First Responder in bedrohlichen und kritischen Szenarien involviert, wodurch für diese extreme Stress- und Leistungssituationen entstehen. Für das Lösen dieser kritischen Situationen ist die Fähigkeit, die richtigen Entscheidungen zu treffen, ein wesentlicher Faktor für den erfolgreichen Ausgang des Szenarios. SHOTPROS setzt an diesem Punkt an und entwickelt ein Trainingsprogramm sowie eine VR-Lösung um diese Szenarien zukünftig zu trainieren und damit die Leistungsfähigkeit der europäischen Sicherheitsbehörden weiter zu verbessern.</p> <p>Der Einsatz von VR-Trainings zur Leistungssteigerung bei Entscheidungen</p> <p>Im Projekt wird von den Forschungseinrichtungen ein validiertes Humanfaktor-Modell für den Entscheidungs- und Handlungsprozess in Stress- und Hochrisikosituationen entwickelt. Dieses Modell hilft beim Verstehen von Entscheidungsprozessen und liefert eine fundierte Basis für die Entwicklung des zukünftigen Trainingsprogrammes.</p> <p>Aufbauend auf diesen Erkenntnissen werden ein Trainingsplan und eine VR-Trainingslösung entwickelt. Dadurch wird ein Rahmen für das praktische Training zum Entscheidungsprozess in Stress- und Hochrisikosituationen für polizeiliche Erstkräfte geschaffen. Das VR-Programm kann individuell angepasst werden, indem die Stressoren in dem virtuellen Umfeld verändert werden. Das Team vom AIT Center for Technology Experience beschäftigt sich dabei insbesondere mit der Evokation und Steuerbarkeit von Stress und Emotionen in virtuellen Realitäten und deren Messbarmachung.</p> <p>Internationales Netzwerk zum Thema "Polizei und Virtual Reality"</p> <p>Im Zuge des Projektes wird ein europäisches Netzwerk unterschiedlicher Polizei- und Sicherheitsbehörden gegründet. Ziel ist es, den Wissenstransfer im Bereich „Virtuelle Welten im polizeilichen Umfeld“ zu ermöglichen und eine Plattform zum Austausch anzubieten. Durch die stetige Integration der Behörden bzw. der End User in jedem Projektschritt wird die zukünftige Lösung optimal anhand der realen Bedürfnisse entwickelt.</p> <p>NEWS</p> <p>AIT Imaging Experten entwickeln innovative, bildgebende Verfahren zur Diagnose und Behandlung von Alzheimer</p> <p>Das war der NGI Talk #3 – AI and beyond</p> <p>AIT auf der QoMEX 2019</p> <p>EVENTS</p> <p>8th International Conference on Mathematical Aspects of Computer and Information Sciences (MACIS)</p> <p>LKR feiert 25-jähriges Jubiläum</p> <p>Workshop „Mikro-Nanotechnologien für integrierte Mikroskopie auf dem MCM-Kongress“</p>


Organization	VUA
Title	Institutional Publication (Website)
Date	09.07.2019
Link	https://www.fgb.vu.nl/nl/nieuws-agenda/nieuws-archief/2019/jul-sep/190709-nieuw-onderzoek-verandert-de-training-van-europese-politieambtenaren-voor-stressvolle-omstand.aspx

Screenshot	
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Organization	Amsterdam UMC
Title	Article about the project
Date	10.07.2019
Link	https://www.amsterdamresearch.org/web/instituut-1/nieuws/tonenop/5-million-euros-horizon-eu-grant-for-shotpros-project.htm
Screenshot	




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Organization	Swedish Police Authority
Title	Internal Article
Date	13.9.2019
Link	n/a
Screenshot	<div> <div>Polisträning i virtuell miljö</div> <div>Sida 1 av 2</div>  <p>Polisträning i virtuell miljö kan bli aktuell för svensk polis</p> <h3>Polisträning i virtuell miljö</h3> <p>Virtual Reality, VR, kan inom en framtid bli en del av polisens POLKON-utbildning. Syftet är att i virtuella miljöer träna poliser att agera och fatta beslut i stressade situationer.</p> <hr/> <p>POLISMYNDIGHETEN 09 sep 2019</p> <p>Ansvara Dela</p> <p>Svensk polis ingår, tillsammans med flera andra länder, i EU-projektet SHOTPROS (Shooting Training Solutions with Of-the-shelf products in Virtual Reality). Projektet har som mål att ta fram en validerad modell för poliser i yttre tjänst, där man i realistiska situationer kan öva beslutsfattande och agerande under stress i högrisksituationer.</p> <p>I praktiken handlar själva utbildningsmiljön om en teknisk lösning som kan liknas vid Google-glasögon, där man utsätter användaren för scenarion som på olika sätt ska hanteras.</p> <p>https://intrapolis.polisen.se/aktuellt/nyhetsarkiv/2019/september/regioner/stockholm/p... 2019-09-11</p> </div>

Organization	UHEI
Title	Article on the Website
Date	12.10.2019
Link	https://www.issw.uni-heidelberg.de/arbeitsbereiche/sportpsy/forschung.html

Screenshot	<div data-bbox="683 197 971 221">UNIVERSITÄT HEIDELBERG ZUKUNFT SEIT 1386</div> <div data-bbox="1342 244 1402 255">Kontakt Suche</div> <div data-bbox="375 262 611 277">Startseite (SSW) > Arbeitsbereiche > Sportpsychologie > Forschung ></div> <div data-bbox="375 275 469 297">Forschung</div> <div data-bbox="375 313 1407 347">SHOTPROS: Verbesserung der Entscheidungs- und Handlungsprozesse in Stress- und Hochrisikosituationen von europäischen Polizeibeamtinnen und -beamten durch VR-Training</div> <div data-bbox="375 349 1407 425">Im interdisziplinären Projekt SHOTPROS werden der Einfluss von psychologischen und kontextuellen Faktoren auf das Entscheidungsverhalten und die Ausführung von Maßnahmen der Polizeikräfte unter Stress und in hochrisikanten Einsätzen untersucht. Über geeignete Trainingsmaßnahmen soll die Leistung von Polizeikräften verbessert werden. Der Untersuchung des Einflusses dieser Faktoren in der virtuellen Realität folgt die Entwicklung eines auf menschlichen Faktoren basierenden Trainingscurriculums und einer dazugehörigen Trainingslösung in virtueller Realität sowie deren Implementierung und Evaluation in fünf EU-Ländern. Lern- und Veränderungsprozesse der beteiligten Polizistinnen und Polizisten, Behörden und Ausbildungsstrukturen werden wissenschaftlich begleitet und Wissensmanagement zum Einsatz von virtueller Realität in den teilnehmenden Ländern geleistet. Ziel des Forschungsprojekts sind die europaweite Verbesserung der Entscheidungsfähigkeit und Handlungssicherheit von Polizistinnen und Polizisten sowie eine Reduktion von Gewaltanwendung und der damit einhergehenden Wahrscheinlichkeit von Opfern und Kollateralschäden. Das SHOTPROS Team umfasst 13 Projektpartner, die in den nächsten 3 Jahren gemeinsam an diesen Zielen arbeiten. Dazu gehören europäische Forschungseinrichtungen, internationale Unternehmen sowie sechs polizeiliche Behörden.</div> <div data-bbox="375 441 446 454">Projektpartner</div> <div data-bbox="375 454 852 642"> <ul style="list-style-type: none"> - USECON – The Usability Consultants GmbH / Österreich - AIT Austrian Institute of Technology GmbH - Center for Technology Experience / Österreich - KU Leuven - Department of Criminal Law and Criminology / Belgien - Stichting VU - Vrije Universiteit Amsterdam / Niederlande - Ruprecht-Karls-Universität Heidelberg – Institute of Sport and Sport Sciences / Deutschland - Campus Vesta APB / Belgien - RE-ICON Group B.V. / Belgien - Ministry of Internal Affairs Romania - Directorate General Logistics / Rumänien - Swedish Police Authority / Schweden - Polizei Berlin - Polizeiakademie / Deutschland - National Politie Nederland / Niederlande - Directorate General Crisis Centre of the Belgian Federal Public Service, Home Affairs / Belgien - Polizei Nordrhein-Westfalen - Landesamt für Ausbildung, Fortbildung und Personalangelegenheiten / Deutschland </div> <div data-bbox="375 656 1011 672">Dieses Projekt wird im Rahmen des Horizon 2020 Forschungs- und Innovationsprogramms der Europäischen Union gefördert (Fördervertrags Nr. 833672).</div> <div data-bbox="376 674 438 705">  </div> <div data-bbox="375 705 521 721">Gesamtkosten: 5,1 Millionen Euro</div> <div data-bbox="375 721 458 736">Dauer: 36 Monate</div> <div data-bbox="375 736 526 752">Projektwebsite: www.shotpros.eu</div> <div data-bbox="375 752 510 768">SHOTPROS auf Social Media</div> <div data-bbox="375 768 1402 813"> <ul style="list-style-type: none"> • Twitter: https://twitter.com/shotpros • Facebook: https://www.facebook.com/shotprosh2020/ • Researchgate: https://www.researchgate.net/project/SHOTPROS-A-HUMAN-FACTORS-BASED-VR-TRAINING-FRAMEWORK-FOR-DECISION-MAKING-AND-ACTING-CAPABILITIES-UNDER-STRESS-AND-IN-HIGH-RISK-SITUATIONS-FOR- </div>
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Organization	E.N.T.E.R. Network
Title	Project description on the network platform
Date	12.08.2020
Link	https://www.enter-network.eu/project/shotpros/
Screenshot	<div data-bbox="391 1160 1380 1344">  </div> <div data-bbox="491 1377 667 1527">  </div> <div data-bbox="469 1585 684 1856"> <p>Full Project Title: SHOTPROS: A human-factors based (VR) training solution for decision-making and acting capabilities under stress and in high risk situations for European LEAs</p> <p>Project Number: Grant agreement ID: 833672</p> <p>Project Promotional Program: Horizon 2020 research and innovation Programme</p> <p>Project Coordinator: USECON - The Usability Consultants GmbH</p> <p>Country: Austria</p> </div> <div data-bbox="707 1402 1355 1532"> <p>SHOTPROS aims to improve the training for European Police officers. The influence of psychological and contextual human factors (HFs) on the behaviour of decision-making and acting (DMA) of police officers under stress and in high-risk operational situations will be investigated. Based on the results, SHOTPROS will develop a HF-rooted training curriculum and a corresponding Virtual Reality training solution to provide a comprehensive framework for practical training.</p> <p>The training will increase DMA performance under stress and in high-risk situations which will lead to better and more correct decisions (from several perspectives, e.g. law, ethic, etc.), to keep the guidance in threatened situations, to minimise use of force occurrences, and accordingly, to maximise the avoidance of casualties and collateral damage, such as panic and cascading or escalating effects.</p> </div> <div data-bbox="707 1547 1355 1856">  </div>

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Annex II: Press Releases

1st SHOTPROS Press release: Kick-off



Press release project launch "SHOTPROS" – for immediate release

TRAIN – DECIDE – ACT. Horizon 2020 research project SHOTPROS radically changes decision making and acting performance of European police officers under stress and in high-risk situations by developing new training methods

Vienna, Austria (May 2019). A European wide, multidisciplinary consortium, coordinated by Austrian consulting company USECON, receives 5 million Horizon 2020 EU grant for its SHOTPROS project. With the help of Virtual Reality (VR) trainings SHOTPROS will train first responders' decision making and acting capabilities under stress and in high risk situations to fight crime, terrorism, CBRNe threats and radicalism.

New project supports European police officers in their challenges

The European street patrol police officers' field of action constantly changes and new challenges are emerging all the time. Being the first responder in novel and ambiguous high-risk situations exposes police officers to high levels of stress and performance pressure. Highly trained staff is required to properly evaluate the situation and to decide and act correctly under stress. Therefore, a decision making and acting based training framework is the go forward solution to support first responders' action control in threatening situations. SHOTPROS contributes to the improvement of the competences and capabilities of European Law Enforcement Agencies (LEAs) to prevent and mitigate the impact of criminal acts, whilst protecting fundamental European rights of its citizens.

Better Decision Making and Acting Performance enhanced by VR-Training

The project aims to create a validated Human Factors Model for Decision Making and Acting under Stress and in High Risk Situations (DMA-SR). Such a model is vital to understand how decisions in the presence of diverse stress cues are made.

For this purpose, SHOTPROS will develop a VR research solution to experimentally assess the degree to which various (human) factors influence DMA behaviour. Subsequently the project will develop a human factor-rooted training curriculum and a corresponding VR training solution to provide a comprehensive framework for practical training for decision-making and acting under stress and in high-risk situations in order to improve DMA-SR performance. Stress influencing human factors can be manipulated in this virtual environment to individualize training and make it more valuable. VR Training that adequately prepares police officers for real-life incidents improves the success of police operations and contributes to the civil security.

Markus Murtinger, Coordinator of SHOTPROS highlights the relevance of this project: "Existing trainings mainly focus on skill training. Processes of decision making and acting and the impact of stress on these processes are neglected. We aim to set up a training framework, enhanced with Virtual Reality, to change the training methods in LEAs to improve decision making processes and minimize use of force, collateral damages and escalations."

A team of 13 European partners from high-ranked research institutions, business companies and international Law Enforcement Agencies will cooperate for 3 years on SHOTPROS. The project-started with a successful kick off meeting taking place in May in Vienna at the AIT Austrian Institute of Technology.

International Law Enforcement Agency Network

During the project a pan-European network among international LEAs will be established in order to transfer knowledge gained in the project and to spread the results within the European Security Network. A tight integration of end users is a vital part of the SHOTPROS project and creates competitive advantages in fighting terrorism and radicalization.

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Press release project launch "SHOTPROS" – for immediate release

For further information about the project please contact:

Press & Main contact

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E-Mail: shotpros@usecon.com

Short Project Facts

The SHOTPROS project aims to investigate the influence of psychological and contextual human factors (HFs) on the behaviour of decision making and acting (DMA) of police officers under stress and in high-risk operational situations in order to design training curricula for police officers that improve DMA performance. To do so, SHOTPROS will develop a VR (virtual reality) research and training solution to experimentally assess the degree to which these factors influence DMA behaviour. Subsequently, this solution will then be used to train DMA behaviour appropriately and thereby improve DMA performance.



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement No 833672.

Total cost: 5.1 Million Euro; Duration: 36 months.

Project Partners

- USECON – The Usability Consultants GmbH / Austria
- AIT Austrian Institute of Technology GmbH - Center for Technology Experience / Austria
- KU Leuven - Department of Criminal Law and Criminology / Belgium
- Stichting VU - Vrije Universiteit Amsterdam / The Netherlands
- Ruprecht-Karls-Universität Heidelberg – Institute of Sport and Sport Sciences / Germany
- Campus Vesta APB / Belgium
- RE-liON Group B.V. / The Netherlands
- Ministry of Internal Affairs Romania - Directorate General Logistics / Romania
- Swedish Police Authority / Sweden
- Der Polizeipräsident in Berlin - Polizeiakademie / Germany
- National Politie Nederland / The Netherlands
- Directorate General Crisis Centre of the Belgian Federal Public Service, Home Affairs / Belgium
- Polizei Nordrhein-Westfalen - Landesamt für Ausbildung, Fortbildung and Personalangelegenheiten / Germany

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Press release project launch "SHOTPROS" – for immediate release

SHOTPROS Kick Off Photo / Vienna 2019 @AIT Austrian Institute for Technology



Project Logo



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2nd SHOTPROS Press Release: SHOT-COVID study



Press release new study "SHOT-COVID19" in the SHOTPROS project – for immediate release

International study: SHOT-COVID19 study investigates police officers' work demands during the COVID-19 crisis

The spread of the COVID-19 virus and the resulting governmental measures pose unprecedented challenges to European street patrol officers. They need to ensure that the measures are followed to guarantee public safety. Dynamic governmental policies, the constant risk of contamination and staff shortages can lead to stressful and uncertain situations in which police officers have to act appropriately. The new international study "SHOT-COVID19", as part of the research project SHOTPROS investigates the current work demands, dynamics and stress of European street patrol officers during the COVID-19 crisis.

Vienna, Austria (April 2020). The international research project SHOTPROS aims to improve first responders' decision making and acting capabilities under stress and in high risk situations by developing an innovative training solution. Picking up the current challenges, a study has been launched as part of the project, to investigate the work requirements and crisis management strategies of police officers during the COVID19 crisis. "The current exceptional situation places unprecedented demands on the crisis management of the police. It is a unique opportunity to gain information on how police officers cope with real-life stress situations," says project initiator Dr. Marie Ottilie Frenkel of Heidelberg University. She has already been able to collect data from over 1,400 police officers from different countries with the support from other project partners.

Background and goals of the SHOT-COVID19 study

Due to new global threat and risk scenarios in recent years, street patrol police officers' field of action constantly changes and new challenges are emerging all the time. The current COVID-19 crisis creates stressful and uncertain circumstances under which patrol officers have to decide and act appropriately and quickly. In these situations, the ability to cope with stress efficiently is a crucial factor for the successful denouement of the situation.

In the SHOT-COVID19 study, participating police officers are interviewed about their work requirements during the corona crisis at three measurement occasions from the end of March to mid-June. The data collected provides an insight into the crisis-related challenges, stress levels and coping strategies of police officers. The knowledge gained will help to further improve crisis management and identify key course elements for future police training. The study results will also feed into the police training program that SHOTPROS will develop over the next 2 years. This program, enhanced by Virtual Reality training, aims to prepare police officers for real-life incidents more efficiently. The aim is to improve the success of police operations and contribute to the civil security in Europe.

Planning and execution

Together with the other research partners in SHOTPROS, the Heidelberg University team is working on the successful implementation and execution of the SHOT-COVID study. Thanks to the close cooperation with various European law enforcement agencies in SHOTPROS, a large number of participants was acquired in a short time. Up to now, more than 1000 street patrol officers from different countries have participated in the study – with numbers increasing.

European Law Enforcement Agencies are currently busy fulfilling their tasks to ensure public safety and compliance with governmental measures. Therefore, an online-survey was developed to ensure time efficient and location-independent participation. This method of data collection offers police officers maximum flexibility when participating without putting them at risk of additional interpersonal contact.

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Press release new study "SHOT-COVID19" in the SHOTPROS project – for immediate release

International cooperation in research and security is of central importance in times like these. The SHOT-COVID19 study proves that meaningful and end-user-oriented research is possible despite difficult circumstances. The main objective is to support European police officers in their daily challenges - today and in the future.

For further information please contact:

SHOTPROS Project-Coordinator	SHOT-COVID19 study lead
Mag. Markus Murtinger USECON – The Usability Consultants GmbH Businesspark MARXIMUM Modcenterstraße 17 / Object 2 1110 Vienna, Austria Phone: +43 1 743 54 51 E-Mail: shotpros@usecon.com	PD Dr. Dipl.-Psych. Marie Ottilie Frenkel (Head of stress research) Heidelberg University, Institute of Sports and Sports Sciences, Department Sport Psychology Im Neuenheimer Feld 700, 69120 Heidelberg, Germany Phone: 0049 151-241 912 83 Email: marie.frenkel@issw.uni-heidelberg.de

Project-Website: www.shotpros.eu

SHOTPROS in Social Media

- Twitter: <https://twitter.com/shotpros>
- Facebook: <https://www.facebook.com/shotprosH2020/>
- Researchgate: <https://www.researchgate.net/project/SHOTPROS-A-HUMAN-FACTORS-BASED-VR-TRAINING-FRAMEWORK-FOR-DECISION-MAKING-AND-ACTING-CAPABILITIES-UNDER-STRESS-AND-IN-HIGH-RISK-SITUATIONS-FOR-EUROPEAN-LEAS>

Project Partners

- USECON – The Usability Consultants GmbH / Austria
- AIT Austrian Institute of Technology GmbH - Center for Technology Experience / Austria
- KU Leuven - Department of Criminal Law and Criminology / Belgium
- Stichting VU - Vrije Universiteit Amsterdam / The Netherlands
- Ruprecht-Karls-Universität Heidelberg – Institute of Sport and Sport Sciences / Germany
- Campus Vesta APB / Belgium
- RE-IION Group B.V. / The Netherlands
- Ministry of Internal Affairs Romania - Directorate General Logistics / Romania
- Swedish Police Authority / Sweden
- Der Polizeipräsident in Berlin - Polizeiakademie / Germany
- National Politie Nederland / The Netherlands
- Directorate General Crisis Centre of the Belgian Federal Public Service, Home Affairs / Belgium
- Polizei Nordrhein-Westfalen - Landesamt für Ausbildung, Fortbildung and Personalangelegenheiten / Germany



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Total cost: 5.1 Million Euro; Duration: 36 months

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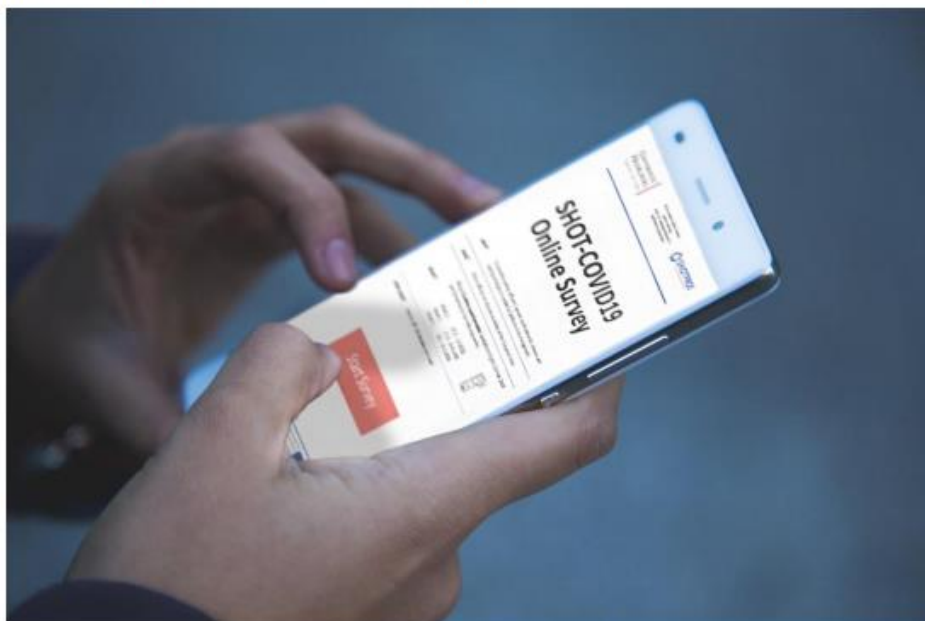
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Press release new study "SHOT-COVID19" in the SHOTPROS project – for immediate release

Picture about the SHOT-COVID19 study – online survey



Projekt Logo



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Press release new study "SHOT-COVID19" in the SHOTPROS project – for immediate release

SHOTPROS Consortium / Vienna 2019 @AIT Austrian Institute for Technology



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Annex III: List of references in the media

Medium	Berliner Zeitung
Nationality	GER
Title	Schießen oder nicht schießen?
online /offline	https://www.bz-berlin.de/liveticker/schiessen-oder-nicht-schiessen
Date	28.06.2019

Medium	APA Science
Nationality	AUT
Title	Forscher entwickeln virtuelles Stresstraining für Polizisten
online /offline	https://science.apa.at/site/natur_und_technik/detail.html?key=SCI_20190701_SCI3_9391351449350958
Date	01.07.2019

Medium	Horizont
Nationality	AUT
Title	Einsatz von Virtual Reality bei der Polizei-Ausbildung
online /offline	https://www.horizont.at/home/news/detail/einsatz-von-virtual-reality-bei-der-polizei-ausbildung.html
Date	01.07.2019

Medium	Kurier
Nationality	AUT
Title	Stress-Training für Polizisten: Weniger Gewalt durch virtuelle Übung
online /offline	https://kurier.at/chronik/oesterreich/forscher-entwickeln-virtuelles-stresstraining-fuer-polizisten/400538974
Date	01.07.2019

Medium	Futurezone
Nationality	AUT
Title	Forscher entwickeln virtuelles Stresstraining für Polizisten
online /offline	https://futurezone.at/science/forscher-entwickeln-virtuelles-stresstraining-fuer-polizisten/400538989
Date	01.07.2019

Medium	Kleinezeitung.at
Nationality	01.07.2019
Title	Üben von Extremsituationen I Forscher entwickeln virtuelles Stresstraining für Polizisten

online /offline	https://www.kleinezeitung.at/oesterreich/5652866/Ueben-von-Extremsituationen-Forscher-entwickeln-virtuelles
Date	01.07.2019

Medium	derStandard.at
Nationality	AUT
Title	Forscher entwickeln virtuelles Stresstraining für Polizisten
online /offline	https://derstandard.at/2000105725310/Forscher-entwickeln-virtuelles-Stresstraining-fuer-Polizisten
Date	01.07.2019

Medium	Krone.at
Nationality	AUT
Title	Forscher entwickeln VR-Stresstraining für Polizei
online /offline	https://www.krone.at/1951251
Date	01.07.2019

Medium	Nachrichten-aktuell.eu
Nationality	AUT
Title	Einsatz von Virtual Reality im polizeilichen Bereich
online /offline	https://www.nachrichten-aktuell.eu/artikel/einsatz-von-virtual-reality-im-polizeilichen-bereich/2212535
Date	01.07.2019

Medium	msn.com
Nationality	AUT, GER
Title	Stress-Training für Polizisten: Weniger Gewalt durch virtuelle Übung
online /offline	https://www.msn.com/de-at/nachrichten/other/stress-training-f%C3%BCr-polizisten-weniger-gewalt-durch-virtuelle-%C3%BCbung/ar-AADGzql
Date	01.07.2019

Medium	Innovation Origins
Nationality	GER
Title	VIRTUAL REALITY-STRESSTRAINING SOLL POLIZISTEN AUF HOCHRISKANTE SITUATIONEN VORBEREITEN
online /offline	
Date	03.07.2019

Medium	Sg.hu
Nationality	HUNGARY

Title	Virtuális stressztréning rendőröknek
online /offline	https://sg.hu/cikkek/it-tech/137026/virtualis-stressztrening-rendoroknek
Date	07.07.2019

Medium	miroir-mag.fr
Nationality	FRACE
Title	LA FORMATION SUR LE STRESS EN RÉALITÉ VIRTUELLE PRÉPARE LA POLICE AUX SITUATIONS À HAUT RISQUE
online /offline	https://www.miroir-mag.fr/actualites-high-tech/la-formation-sur-le-stress-en-realite-virtuelle-prepare-la-police-aux-situations-a-haut-risque/
Date	07.07.2019

Medium	Immersivelearning.news
Nationality	GER
Title	Einsatz von Virtual Reality im polizeilichen Bereich
online /offline	http://www.immersivelearning.news/
Date	08.07.2019

Medium	Vienna.at
Nationality	AUT
Title	Studie Untersucht Stress von Polizisten in der Corona-Krise
online /offline	https://www.vienna.at/studie-untersucht-stress-von-polizisten-in-der-corona-krise/6604142
Date	30.04.2020

Medium	APA
Nationality	AUT
Title	Anforderungen im polizeilichen Corona-Alltag
online /offline	https://www.ots.at/presseaussendung/OTS_20200430_OTS0025/anforderungen-im-polizeilichen-corona-alltag-bild
Date	30.04.2020

Medium	top-news.at
Nationality	AUT
Title	Anforderungen im polizeilichen Corona-Alltag
online /offline	https://www.top-news.at/2020/04/30/anforderungen-im-polizeilichen-corona-alltag/
Date	30.04.2020

Medium	APA Science
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Nationality	AUT
Title	Anforderungen im polizeilichen Corona-Alltag
online /offline	https://science.apa.at/rubrik/natur_und_technik/Anforderungen_im_polizeilichen_Corona-Alltag/SCI_20200430_SCI39471352454383796
Date	30.04.2020

Medium	vol.at
Nationality	AUT
Title	Studie untersucht Stress von Polizisten in der Corona-Krise
online /offline	www.vol.at
Date	30.04.2020

Medium	Kurier
Nationality	AUT
Title	Studie untersucht Stress von Polizisten in der Krise
online /offline	https://kurier.at/politik/inland/coronavirus-sommerplaene-so-geht-es-ab-1-mai-im-tourismus-weiter/400825766
Date	30.04.2020

Medium	DiePresse
Nationality	AUT
Title	Polizisten bewerten Stress der Coronazeit
online /offline	offline
Date	02.05.2020

Medium	DiePresse.at
Nationality	AUT
Title	Polizisten bewerten Stress der Coronazeit
online /offline	https://www.diepresse.com/5807932/polizisten-bewerten-stress-der-coronazeit
Date	04.05.2020

Medium	NÖN
Nationality	AUT
Title	Krisenmanagement der Polizei wird untersucht
online /offline	https://www.noen.at/niederoesterreich/chronik-gericht/corona-studie-krisenmanagement-der-polizei-wird-untersucht-oesterreich-redaktionsfeed-krisenmanagement-austrian-institute-of-technology-innenministerium-studie-coronavirus-204263925#
Date	05.05.2020

Annex IV: SHOTPROS Newsletter



Newsletter

TRAIN. DECIDE. ACT

Dear Mr B.A. Schlagenhaufen,

Enjoy reading our first official Newsletter with updates about the news, events and research activities of SHOTPROS! The project started with the kick-off event in May 2019 and is in full progress. All partners are collaboratively working on the tasks towards developing innovative training for European police enhanced by Virtual Reality (VR) and establishing an European network on VR and police.

In the first 10 months of the SHOTPROS the project was present at several events & conferences, got invited to high-level meetings and uncovered promising research results. Virtual Reality training is becoming increasingly relevant in several security domains and our project has received a lot of positive response and aroused strong interest. We are doing our best to advance our project and research activities despite the current COVID19 crisis. Our new study "SHOT-COVID19" investigates the work demands of police officers during the crisis to improve crisis management and future police training.

Learn more about the study [on our Website](#).

You want to keep posted about SHOTPROS? Visit the website and social media profiles. The Links are embedded in the end of the newsletter.

Best regards,
SHOTPROS Consortium

News



SHOTPROS at the OSCE

SHOTPROS was invited by the OSCE to participate in the Annual Police Academies Network Meeting at the Hofburg in Vienna on the topic of "Future Police Training"

[Link to page](#)



Meeting with the Police President in Berlin

Representatives from our SHOTPROS Consortium had a very productive meeting with Dr. Barbara Slowik (Police President in Berlin), Marco Langner (Police Vice President) and the board of directors of the Berlin Police.

[Link to page](#)

Events



2nd Consortium Meeting in Leuven

SHOTPROS' second consortium meeting took place from 12th to 13th November in Leuven. We are looking back to a great meeting with exciting presentations, lively discussions and productive workshops.

[Link to page](#)



FEPSAC in Muenster

The Congress of the European Federation of Sport Psychology had a large number of participants, inter alia our partners from the University of Amsterdam and the University of Heidelberg. They met at the congress to exchange experiences and to discuss the SHOTPROS projects with other experts from this field of research.

[Link to page](#)

Research Activities



SHOT-COVID19 study

The new SHOT-COVID19 study investigates police officers' work demands, dynamics and stress during the corona crisis. The knowledge gained will help to further improve crisis management and identify key course elements for future police training.

[Link to page](#)



Site visits at law enforcement agencies

VU Amsterdam successfully conducted site visits at all law enforcement partners to validate their training curricula and to identify „best practices“ in European police training. The outcomes of this research activity, together with the end-user requirements set a basis for the development of the future police training, enhanced by virtual reality.

[Link to page](#)

SHOTPROS at one glance

Improve performance of European police officers by developing
VR enhanced training



IMPROVE

the performance of
European street
patrol officers



SUPPORT

European police in
their fight against
crime and terrorism



FOLLOW

the security strategy
of the European
Union



CONTRIBUTE

to the public safety
of European citizen

[Visit our website](#)

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