

D1.3 Data Management Plan



| | |
|-----------------------|---|
| Deliverable | D1.3 |
| Deliverable Lead | USE |
| Related work package | WP1 |
| Author(s) | Valerie Schlagenhaufen Gerhard Helletzgruber |
| Dissemination level | PUBLIC |
| Due submission date | 31.10.2019 |
| Actual submission | 31.10.2019 |
| Project number | 833672 |
| Instrument | RIA |
| Start date of project | 01.05.2019 |
| Duration | 36 months |
| Version log | V1.0 |

Versions

| Vers. | Date | Author | Description |
|-------|------------|------------------------------|------------------------|
| V0.1 | 10.09.2019 | Valerie Schlagenhaufen (USE) | First Draft |
| V0.2 | 22.10.2019 | Gerhard Helletzgruber (USE) | Revisions |
| V0.3 | 24.10.2019 | Helmut Schrom-Feiertag (AIT) | Revision and Additions |
| V1.0 | 30.10.2019 | Valerie Schlagenhaufen (USE) | Finalization |

List of Acronyms and Abbreviations

| Acronym / Abbreviation | |
|------------------------|---|
| DMP | Data Management Plan |
| VR | Virtual Reality |
| GDPR | General Data Protection Regulation |
| LEA | Law enforcement agency |
| Tbd | To be discussed |
| MS office | Microsoft office |
| GA | Grant Agreement |
| DMA-SR | decision-making and acting under stress and in high-risk situations |
| DPO | Data Protection Officer |
| PDO | Project data officer |

Table of Contents

| | | |
|----------|---|-----------|
| 1 | Executive Summary | 3 |
| 2 | Introduction | 4 |
| 3 | Data Summary | 4 |
| 3.1 | <i>Data Type and References.....</i> | 5 |
| 3.2 | <i>Data Set Description.....</i> | 12 |
| 3.2.1 | DS_1.4 | 12 |
| 3.2.2 | DS_2.1 | 13 |
| 3.2.3 | DS_2.2 | 13 |
| 3.2.4 | DS_3.1 | 14 |
| 3.2.5 | DS_3.2 | 15 |
| 3.2.6 | DS_3.3 | 16 |
| 3.2.7 | DS_4.2 | 16 |
| 3.2.8 | DS_4.2(2) | 17 |
| 3.2.9 | DS_4.3-5 | 18 |
| 3.2.10 | DS_6.1-3 | 18 |
| 3.2.11 | DS_7.1-2 | 19 |
| 3.2.12 | DS_8.2..... | 20 |
| 3.2.13 | DS_8.8..... | 20 |
| 4 | Data management | 21 |
| 4.1 | <i>Data handling during the project</i> | 21 |
| 4.2 | <i>Publication</i> | 23 |
| 4.3 | <i>Allocation of Resources and Data Security.....</i> | 25 |
| 4.4 | <i>Data Management Life Cycle</i> | 25 |
| 5 | Ethical Aspects | 26 |

Table of Figures

| | |
|--|----|
| Figure 1: AIT sharepoint and folder structure for SHOTPROS | 22 |
| Figure 2: Data Management Life Cycle | 26 |

Tables

| | |
|--|----|
| Table 1: Summary of all Data Sets - Data Type and References | 11 |
| Table 2: Data Set Information (DS_1.4) | 12 |
| Table 3: Data Set Information (DS_2.1) | 13 |
| Table 4: Data Set Information (DS_2.2) | 14 |
| Table 5: Data Set Information (DS_3.1) | 15 |
| Table 6: Data Set Information (DS_3.3) | 16 |
| Table 7: Data Set Information (DS_4.2) | 17 |
| Table 8: Data Set Information (DS_4.2(2)) | 17 |
| Table 9: Data Set Information (DS_4.3-5) | 18 |
| Table 10: Data Set Information (DS_6.1-3) | 19 |
| Table 11: Data Set Information (DS_7.1-2) | 20 |
| Table 12: Data Set Information (DS_8.2) | 20 |
| Table 13: Data Set Information (DS_8.8) | 21 |

1 Executive Summary

The aim of this document is to address how research data will be handled during SHOTPROS and after its completion and to define the data management principles that will be followed by the Consortium.

This Data Management Plan (DMP) includes relevant information about what types of data will be generated and collected, what standards will be used, how this data will be shared and exploited and how this data will be curated and preserved. The DMP is a complimentary document to the deliverables in WP9 “Ethic requirements” (confidential) and the deliverable D8.1 “Dissemination Plan & Communication Guideline” (public).

The SHOTPROS project involves several law-enforcement agencies which entails that given the nature of the project, some of the research data generated will be confidential and therefore not shared with the public. As a consequence, SHOTPROS opted out of the “Open Research Data Pilot in Horizon 2020”.

2 Introduction

The purpose of this Data Management Plan (DMP) is to provide an overview of the main elements of the data management policy that will be used by the SHOTPROS consortium with regards to the project research data. It aims to detail all the information regarding to the generation, treatment, recovery and publication of research data obtained by the SHOTPROS partners throughout the project execution and its curation during and after the project. Furthermore, it describes the data management life cycle for all datasets that will be collected, processed or generated by the research project. This DMP has been written in compliance with the applicable sections of the document “Guidelines on FAIR Data Management in Horizon 2020”.¹

The DMP is intended to be a living document and hence several information will be updated in the course of the project when the implementation progresses and when significant changes occur. These updates will be provided with the midterm periodic report in month 18 and with the final report at the end of the project.

3 Data Summary

This chapter briefly sums up the data collection / generation of all data-sets of SHOTPROS. The origin, respective WP, data format, main organisation / involved researcher and a data set description for each data-set is collected in the following tables. The size of the data-sets cannot be estimated at this stage of the project since some data formats (e.g. MP4) vary widely depending on the resolution. However, AIT as the provider of the sharepoint is responsible and will make sure that an appropriate amount of storage capacity is continuously available for the project.

¹https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf#page=10

3.1 Data Type and References

| Data Set | What is collected | Purpose & Utility | WP | Format |
|----------|---|---|-----|--|
| DS_1.4 | <ul style="list-style-type: none"> Participant name The (LEA, stakeholder) organization the participant works for Participant's function in the organization Participant's e-mail address if they are interested in participating in other SHOTPROS studies and want to be informed about upcoming studies Personal information such as gender, age, educational background gaming experience, professional profile, expression of interest in SHOTPROS research activities etc. | The purpose of this data set is to enable the management of the involvement of the end user partners over the 3 project years but also for future activities after the project to guarantee a sustainable approach. | WP1 | General database and Profile database in MS excel files, calendar of availability in word document |
| DS_2.1 | <ul style="list-style-type: none"> Participant name The LEA organization the participant works for Participant's function in the organization Participant's e-mail address if they are interested in participating in other SHOTPROS studies and want to be informed about upcoming studies Pictures, video and audio files will be taken / recorded during the workshop and the interviews and analysed afterwards | The aim of this data set is to collect LEAs needs, requirements & opinions and create insights for future training developments. Therefore, it is necessary to collect data about the participants, the workshops itself and the interview partner. | WP2 | MS office documents; PDF; audio recordings, MP4 files, .jpeg |

| | | | | |
|--------|---|--|-----|---|
| DS_2.2 | <ul style="list-style-type: none"> Data from the EU citizen survey | <p>A large-scale study on the perceived behaviour of police officers of EU citizens will be conducted in all represented in the SHOTPROS consortium. The survey is anonymous and the collected data will be kept to a minimum (see D9.5).</p> | WP2 | Online survey output, SPSS files, MS office documents |
| DS_3.1 | <ul style="list-style-type: none"> Training and Assessment Manuals, for all training that includes training of skills for high pressure situations (e.g. self-defense and arrest skills, shooting skills, use of force training) Training Policies Training Protocols (for training of skills for high pressure situations) Lesson Plans (for training of skills for high pressure situations) Assessment Reports/Guidelines Documents related to skills training, training under pressure, training with virtual reality, training involving psychological competences (e.g. decision making) | <p>For the analysis of the current best practices of European LEA training several documents containing training curricula will be obtained and analysed. Furthermore, the outcome of this desk research will be enhanced and validated by site visits at the LEAs that include behavioral observation of trainees during training and assessment, as well as in-depth interviews with police instructors.</p> | WP3 | <p><u>Raw data:</u> MS office documents; PDF; MP4 files; possibly audio recordings</p> <p><u>Analysed data:</u> data sets with coded/classified/categorized information</p> |

| | | | | |
|--------|---|--|-----|--|
| DS_3.2 | <ul style="list-style-type: none"> Participant name The LEA organization the participant works for Participant's function in the organization Exact measures TBD (e.g. Rating Scale for Mental Effort, Heart Rate Monitoring, Gaze behaviour measurements, decision making behaviour) | The aim of this data-set is the validation of the Multi-Dimensional Decision-Making and Acting under Stress and in High-Risk Situations (DMA SR) Model. | WP3 | <u>Raw data:</u> MS office documents, MP4 files, additional TBD <u>Analysed data:</u> data sets with coded/classified/categorized information |
| DS_3.3 | <ul style="list-style-type: none"> Tbd | The purpose of this data-set is to develop a European framework for training and assessment (using VR) of DMA-SR behaviour of LEA professionals. | WP3 | Tbd |
| DS_4.2 | <ul style="list-style-type: none"> Participant name The LEA organization participant works for Participant's demographics (age, height, weight, medical history) Participant's fitness and subjective health Participant's function in the organization and work experience Participant's personality traits (anxiety, sensation seeking, self-control, mindfulness) Participant's stress level in the past three weeks <p>Ecological momentary assessment</p> | The data will be used to scientifically investigate the police officer's psychophysiological stress responses on duty depending on shift, previous psychophysiological stress responses and characteristics of the present call of service | WP4 | MS office documents; SPSS data files |

| | | | | |
|-----------|--|--|-----|--------------------------------------|
| | <ul style="list-style-type: none"> Participant's duty roster Participant's mood Participant's emotion regulation strategies Participant's daily activities (duration and quality of sleep, eating and drinking behaviour, medicine intake, current activity) <p>Physiological measurements</p> <ul style="list-style-type: none"> heart rate saliva samples (cortisol, alpha-amylase) | | | |
| DS_4.2(2) | <ul style="list-style-type: none"> Participant name Participant's gender The LEA organization participant works for Participant's demographics (age, height, weight, medical history) Participant's function in the organization and work experience Participant's personality traits (anxiety, sensation seeking, self-control, mindfulness) Participant's stress level in the past three weeks <p>Psychological measurements</p> <ul style="list-style-type: none"> Anxiety Stress level Mental effort <p>Physiological measurements</p> | The purpose of this data-set is to analyse the experimental studies of psychophysiological stress responses to various and/or multiple stress cues in real-life as well as in virtual reality. | WP4 | MS office documents, SPSS data files |

| | | | | |
|----------|--|--|-----|---|
| | <ul style="list-style-type: none"> • Electrocardiogram • Saliva samples (cortisol, alpha-amylase) | | | |
| DS_4.3-5 | <ul style="list-style-type: none"> • Participant name • Age • Gender • Nationality • Years of experience in the police force • Function in the police force • Ethnicity • Level of VR experience • Religion • Participant's e-mail address (for further studies) • Scenario execution time • Audio and Video recordings • Subjective ratings of stress, workload, QoE / UX • Physiological measures (see DS_4.2 and DS_4.2(2)) • Qualitative answers in the debriefing interviews | The purpose of this data set is to fulfil the tasks T4.3 to 4.6 of WP4 "Training Experience Assessment, Modelling and Scenario Development". | WP4 | MS office documents; PDF; audio recordings, MP4 files, CSV files of subjective ratings for data processing, physiological data (upon alignment with UHEI) |
| DS_6.1-3 | <ul style="list-style-type: none"> • Participant name • Age • Gender • Nationality • Years of experience in the police force • Function in the police force • Ethnicity | This data-set of WP6 will be generated in accordance with the research questions addressed in WP2-4. The aim of the data set is to enable a quantitative analysis of the impact of (simulated) | WP6 | MS office documents; PDF; audio recordings, MP4 files, CSV files of subjective ratings for data processing, physiological data |

| | | | | |
|--------|---|--|-----|---|
| | <ul style="list-style-type: none"> • Level of VR experience • Religion • Participant's e-mail address (for further studies) • Scenario execution time • Audio and Video recordings • Subjective ratings of stress, workload, QoE / UX • Physiological measures • Qualitative answers in the debriefing interviews | human influence factors on user behaviour decision-making and user experience. | | |
| DS_7.1 | <ul style="list-style-type: none"> • Participant name • Organisation • Function in the organisation • Expression of interest in SHOTPROS activities | This database will include information on external stakeholders interested / participating in the Trials and final demonstration in WP7. | WP7 | Database / Dissemination list of external participants to the SHOTPROS trials |
| DS_8.2 | <ul style="list-style-type: none"> • Name of subscriber • Gender • Organization he/she works for • E-Mail address | The collected data will be used to distribute a periodic newsletter to the stakeholder of SHOTPROS to inform them about all relevant project developments. | WP8 | MS office document with the collected data |

| | | | | |
|--------|--|--|-----|---|
| DS_8.8 | <ul style="list-style-type: none"> • Member name • Organisation • Function in the organisation • Expression of interest in VR activities • Participation and function in past of ongoing research projects, ... | <p>The data will be collected in order to establish a "VR Police Training Network" that includes 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.</p> | WP8 | Database with information on the VR network members |
|--------|--|--|-----|---|

Table 1: Summary of all Data Sets - Data Type and References

3.2 Data Set Description

This chapter contains a brief description of the data sets generated throughout the SHOTPROS project. The sets are named after the task they belong to.

3.2.1 DS_1.4

| Data Set Information | |
|--------------------------------|--|
| Data set reference | DS_1.4 |
| Brief description of data set | <p>Task 1.4 centralises the information on all end user participants of SHOTPROS research activities. This information is collected by the LEAs (the activity hosts) and the academic partners (activity owners), e.g. end user requirement workshops, interviews, tests, trials, etc.</p> <p>The centralised information is made available for all SHOTPROS partners at the project SharePoint in 3 distinct databases:</p> <ul style="list-style-type: none"> - A general database: contact details - A profile database: personal information - A calendar of activities and availability <p>The general database will also serve as stakeholders dissemination list</p> |
| Researcher / Main organisation | Campus Vesta |
| Researchers involved | dr. Kathleen Van Heuverswyn, Floor Lams |
| Generation date | M1 – M36 |
| Publication (if public) | tbd |

Table 2: Data Set Information (DS_1.4)

3.2.2 DS_2.1

| Data Set Information | |
|--------------------------------|--|
| Data set reference | DS_2.1 |
| Brief description of data set | <p>The end user requirements studies involve (a) a 1.5 day workshop with a group of 8-10 end user participants in each LEA partner organization, and (b) approximately 4 to 6 interviews with experts in different topics (e.g., police training, policy on police, legal and ethical issues) per LEA partner organization.</p> <p>The workshops will be recorded to be able to transcribe the different sessions for further scientific analysis. In the transcription, all participants will receive a 'subject number' and any reference to information that might allow for identification of a participant will be removed from the text.</p> |
| Researcher / Main organisation | KU Leuven / USECON |
| Researchers involved | <p>Emma Jaspaert</p> <p><u>Researchers involved from other organizations:</u> Quynh Nguyen</p> |
| Generation date | September / October 2019 |
| Publication (if public) | M1 – M14 |

Table 3: Data Set Information (DS_2.1)

3.2.3 DS_2.2

| Data Set Information | |
|-------------------------------|---|
| Data set reference | DS_2.2 |
| Brief description of data set | <p>In the EU citizens survey, we will collect information from citizens in different European countries via an online survey. No personal data allowing for the identification of the respondents will be collected (e.g., no name, no IP addresses). Therefore, the data from this survey are considered</p> |

| | |
|--------------------------------|---|
| | anonymous. The dataset will be extracted within SPSS, where each respondent has a subject number. |
| Researcher / Main organisation | KU Leuven |
| Researchers involved | Emma Jaspaert |
| Generation date | M12 to M22 |
| Publication (if public) | tbd |

Table 4: Data Set Information (DS_2.2)

3.2.4 DS_3.1

| Data Set Information | |
|-------------------------------|--|
| Data set reference | DS_3.1 |
| Brief description of data set | <p>To create an inventory of current best practices of European LEA training, this study combines desk research and site visits with the law enforcement agencies (LEAs).</p> <p>The analysis of the documents acquired through the desk research and observations obtained from site visits will specifically look at the extent to which the training and assessment is reality-based, includes training under pressure, uses virtual reality, and pays attention to the psychological competencies related to decision making (i.e. decisiveness, self-restraint, judgement, information processing).</p> <p>As part of the site visits, we attempt to observe the practices and trainings LEAs have described in the documents obtained during desk research. Data is collected on the basis of behavioral observation of trainees during training and assessment, as well as in-depth interviews with police instructors.</p> <p>The documents we have obtained via either SURFfilesender, the internal SHOTPROS SharePoint, or during site visits are stored securely and confidentially as password-protected files or on external hard drive and will be kept in a locked storage space or on a safe cloud facility of the university.</p> |

| | |
|--------------------------------|---|
| Researcher / Main organisation | VUA |
| Researchers involved | Dr. Raoul R.D. Oudejans; Dr. Vana (R.I). Hutter; Lisanne Kleygrewe, M.Sc. |
| Generation date | M1 – M8 |
| Publication (if public) | tbd |

Table 5: Data Set Information (DS_3.1)

3.2.5 DS_3.2

| Data Set Information | |
|--------------------------------|--|
| Data set reference | DS_3.2 |
| Brief description of data set | <p>The development of a Multi-Dimensional Decision-Making and Acting under Stress and in High-Risk Situations (DMA SR) Model, will consist of a combination of Nieuwenhuys & Oudejans' model of perceptual-motor performance (2012, 2017) and Raab's concepts of motor heuristics and embodied choices (2017). The conceptual model considers how stress and anxiety influence perception, decision-making and action so that police training and assessment methods (real-world and VR) can be adjusted accordingly.</p> <p>To validate the conceptual model and determine if the model predictions are in line with responses to VR training, we aim to manipulate stress and anxiety within the VR scenarios to establish how different levels of stress and anxiety.</p> <ul style="list-style-type: none"> a) affect physical responses (e.g. increased muscle tension, increased tendency to direct responses away from stressor) b) influence goal-directed movement <p>and how these effects implicate and/or relate to changes at the attentional level.</p> <ul style="list-style-type: none"> c) affect decision making of police officers |
| Researcher / Main organisation | VUA |
| Researchers involved | Dr. Raoul R.D. Oudejans; Dr. Vana (R.I). Hutter; Lisanne Kleygrewe, M.Sc. |
| Generation date | M5 – M12 |

| | |
|-------------------------|-----|
| Publication (if public) | tbd |
|-------------------------|-----|

3.2.6 DS_3.3

| Data Set Information | |
|--------------------------------|---|
| Data set reference | DS_3.3 |
| Brief description of data set | The framework for training and assessment will consist of training concepts, training methods, training modules, and training assessment methods. The framework will focus on the implementation/supplementation of VR training for DMA-SR behaviour. |
| Researcher / Main organisation | VUA |
| Researchers involved | Dr. Raoul R.D. Oudejans; Dr. Vana (R.I). Hutter; Lisanne Kleygrewe, M.Sc. |
| Generation date | M12 – M24 |
| Publication (if public) | tbd |

Table 6: Data Set Information (DS_3.3)

3.2.7 DS_4.2

| Data Set Information | |
|-------------------------------|--|
| Data set reference | DS_4.2 |
| Brief description of data set | In the case study, one police officer took part in ecological momentary assessments in his leisure time as well as on duty. He answered questions on his current activity and mood and provided saliva samples four times a day (after awakening, 30 min later, 6 hours later and at bedtime) for three weeks. Additionally, he provided saliva samples in response to calls of services during duty and reported his stress level and the use of emotion regulation strategies. Heart rate was continuously monitored by the Polar Vantage V. |

| | |
|--------------------------------|---|
| Researcher / Main organisation | UHEI |
| Researchers involved | Marie Ottilie Frenkel, Laura Giessing, Henning Plessner <u>Researchers involved from other organizations:</u> Raoul Oudejans, Vana Hutter, Lisanne Kleygrewe, Sebastian Egger-Lampl, Helmut Schrom-Feiertag, Jana Strahler |
| Generation date | M8 – M18 |
| Publication (if public) | tbd |

Table 7: Data Set Information (DS_4.2)

3.2.8 DS_4.2(2)

| Data Set Information | |
|--------------------------------|---|
| Data set reference | DS_4.2(2) |
| Brief description of data set | Various experimental studies will be conducted to measure the psychophysiological stress responses to various and/or multiple stress cues in real-life as well as in virtual reality. To control for interindividual differences that influence psychophysiological stress reactivity, participant's demographics need to be collected. |
| Researcher / Main organisation | UHEI |
| Researchers involved | Marie Ottilie Frenkel, Laura Giessing, Henning Plessner <u>Researchers involved from other organizations:</u> Raoul Oudejans, Vana Hutter, Lisanne Kleygrewe, Sebastian Egger-Lampl, Helmut Schrom-Feiertag, Jana Strahler |
| Generation date | M8 – M18 |
| Publication (if public) | tbd |

Table 8: Data Set Information (DS_4.2(2))

3.2.9 DS_4.3-5

| Data Set Information | |
|--------------------------------|---|
| Data set reference | DS_4.3-5 |
| Brief description of data set | <p>The lab studies to assess the appropriateness of stress inducing cues will involve participants for experiments of 30min to 2 hours. Throughout these experiments free exploration of environments and task based exercises will be used and the subject's experiences and reactions will be monitored.</p> <p>The experiments will be A/V recorded in order to be able to analyse certain interaction and / or reactions appropriately. Furthermore, objective (physiological) and subjective reactions of the subjects will be recorded and stored for further analysis. The data of the subjects will be pseudonymized.</p> |
| Researcher / Main organisation | AIT |
| Researchers involved | Sebastian Egger-Lampl; Helmut Schrom-Feiertag |
| Generation date | M8 – M24 |
| Publication (if public) | tbd |

Table 9: Data Set Information (DS_4.3-5)

3.2.10 DS_6.1-3

| Data Set Information | |
|-------------------------------|--|
| Data set reference | DS_6.1-3 |
| Brief description of data set | <p>Data from the studies and experiments in WP2-4 will be collected, transcribed, pre-processed and made available for further analysis. Statistical analysis will be carried out to identify influence factors and their impact on human behavior. Behavioral clustering methods will reveal user</p> |

| | |
|--------------------------------|--|
| | <p>groups with similar behavioral and DMA patterns. Finally, a predication model for DMA will be trained on this data by machine learning techniques.</p> <p>The data collected in the studies are thus supplemented and made available with the results such as influencing factors and values, statistical parameters for behavior patterns, user groups and prediction model.</p> |
| Researcher / Main organisation | AIT |
| Researchers involved | Sebastian Egger-Lampl; Helmut Schrom-Feiertag |
| Generation date | M8 – M24 |
| Publication (if public) | tbd |

Table 10: Data Set Information (DS_6.1-3)

3.2.11 DS_7.1-2

| Data Set Information | |
|--------------------------------|---|
| Data set reference | DS_7.1-2 |
| Brief description of data set | <p>Besides the T1.4 information on end user participants in SHOTPROS research activities and the T8.8 information on members of the SHOTPROS VR network, a third additional database will include information on external stakeholders interested/participating in the Trials and final demonstration in WP7.</p> <p>No specific personal information will be collected from this type of participants, other than contact details, general profile (function, organisation) and interest in SHOTPROS results. This list will be partly covered by the general database, additional persons will most probably be added (those only interested in the SHOTPROS results and not in participating in research activities)</p> |
| Researcher / Main organisation | Campus Vesta |

| | |
|-------------------------|---|
| Researchers involved | dr. Kathleen Van Heuverswyn, Floor Lams |
| Generation date | M25 –M32 |
| Publication (if public) | tbd |

Table 11: Data Set Information (DS_7.1-2)

3.2.12 DS_8.2

| Data Set Information | |
|--------------------------------|--|
| Data set reference | DS_8.2 |
| Brief description of data set | On the SHOTPROS website we will offer the option to subscribe for the newsletter by entering E-mail address (mandatory), name and company (optional). It is possible to revoke the consent to the sending of the newsletter at any time and cancel the subscription. It can be revoked by sending an e-mail to: shotpros@usecon.com. The data associated with the newsletter distribution will be deleted immediately. |
| Researcher / Main organisation | USECON |
| Researchers involved | Valerie Schlagenhaufen, Markus Murtinger |
| Generation date | M1 – M36 |
| Publication (if public) | tbd |

Table 12: Data Set Information (DS_8.2)

3.2.13 DS_8.8

| Data Set Information | |
|-------------------------------|--|
| Data set reference | DS_8.8 |
| Brief description of data set | The information collected in Task 1.4 will serve as input for 1) recruiting potential network members, 2) communication with the actual network members. |

| | |
|--------------------------------|--|
| | This will be an ongoing activity during the project, the VR network will officially be established by the end of the project, M33-36 |
| Researcher / Main organisation | VESTA |
| Researchers involved | dr. Kathleen Van Heuverswyn, Floor Lams |
| Generation date | M1 – M36 |
| Publication (if public) | tbd |

Table 13: Data Set Information (DS_8.8)

4 Data management

The DMP has been prepared by referring to the Template Horizon 2020 Data Management Plan (DMP). The Horizon 2020 DMP template is designed to be applicable to any Horizon 2020 project that produces, collects or processes research data. Due to security and confidentiality reasons SHOTPROS opted out from the Open Research Data Pilot (GA article 29.3.). Nevertheless the data management for public data sets in SHOTPROS will be oriented towards FAIR principles which means making data findable, accessible, interoperable and re-usable.

All personal data collected in SHOTPROS will be processed in accordance with the requirements of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). Detailing information on the procedures are also given in the Deliverables in WP 9.

4.1 Data handling during the project

All electronic data records (questionnaires, audio and video data, observation data) including metadata will be stored on AIT's sharepoint server project instance. Access rights will only be available for project staff that have been explicitly assigned access to the document share shown in the "SHOTPROS participant and overview list" administered by the Coordinator.

The sharepoint is structured in folders for each work package to make the data easily findable. Each data set will be stored in the folder of the respective work package. It is possible to create sub-folders to structure the data clearer.

The following naming conventions have been defined in order to make the data easily findable:

- Deliverables: SHOTPROS_DX.X_Name_of_the_deliverable_VX.X
- Other data: SHOTPROS_WPX_Name_of_Data_VX.X

Each document must contain a version log in the end of the name that corresponds with the version log on the second page of the template. Thereby, the last person that was working on the document can be re-traced and the risk that an “old” version of the document is used can be minimized.

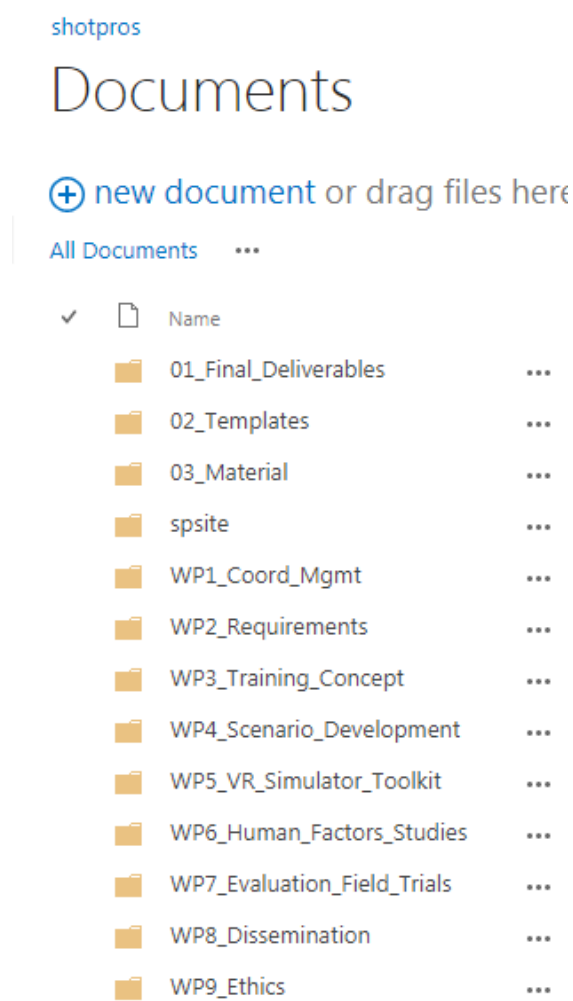


Figure 1: AIT sharepoint and folder structure for SHOTPROS

4.2 Publication

Publications refers to all published research output such as journal articles, scientific books, conference proceedings, technical reports and other deliverables produced by SHOTPROS. Each partner will adhere to the open access procedures for scientific publications laid down in article 29.2 in the GA. In specific cases partners should not publish their results when the following conditions apply:

- The publication of the research data will be in violation of the security restrictions of the project.
- The publication of the research data will be in violation of the privacy restrictions of the project.
- If the achievement of the action's main objective would be jeopardized by making those specific parts of the research data openly accessible.

The decision on whether or not to publish lies entirely with the funded organisations. In the case the partner will not publish or share their research under one of the above conditions, justification explaining this issue should be included.

The SHOTPROS project involves cooperation with several law-enforcement agencies and therefore, some of the research data generated and some deliverables are confidential. The following public deliverables will be published on the SHOTPROS website as PDF accessible for everyone:

| WP No. | Del. No. | Title |
|--------|----------|---|
| WP1 | D1.1 | Project Manual including Quality Assurance Guidelines |
| WP1 | D1.2 | Ethical Guidelines & Procedures |
| WP1 | D1.3 | Data Management Plan |
| WP1 | D1.5 | Meeting Minutes Reports |
| WP1 | D1.6 | Project Progress Report Period 1 |
| WP1 | D1.7 | Project Progress Report Period 2 |
| WP2 | D2.4 | EU Citizens Study Report on Perceived Behaviour of Police Officers and Impacts for the DMA Model & Training Framework |
| WP3 | D3.2 | Conceptual Model of DMA-SR Behaviour and a Research Agenda to validate the Conceptual Model |

| | | |
|-----|------|--|
| WP3 | D3.3 | European Framework for Training and Assessment (using VR) of DMA-SR Behaviour of Professionals (including Training Concepts, Training Methods, Training Modules, and Assessment Methods) |
| WP4 | D4.1 | Cue Repository for Personalization and Customization of VR Training Scenarios |
| WP4 | D4.2 | Description of VR Training Scenarios |
| WP4 | D4.3 | Concept for Physiological Measurement Suite for Stress Assessment |
| WP4 | D4.4 | Training Experience Framework and Structural Equation Model |
| WP4 | D4.5 | Real-Time Training Progress Assessment Tool |
| WP4 | D4.7 | Risk Assessment Toolkit to identify High-Risk Situations |
| WP6 | D6.1 | Human Factors Study Plan |
| WP6 | D6.2 | Human Factors Measurement Toolkit |
| WP6 | D6.4 | Human Factor Impact Analysis and Machine Learning Models |
| WP7 | D7.1 | Field Trial Methodology and Planning |
| WP7 | D7.2 | Field Trial Combined Analysis Report |
| WP7 | D7.3 | Report on the SHOTPROS Demonstration at the Final Conference |
| WP7 | D7.4 | SHOTPROS Final Evidence-based HF Model for DMA-SR |
| WP7 | D7.5 | SHOTPROS Final Training Curriculum for DMA-SR |
| WP7 | D7.6 | SHOTPROS Final Guidelines for VR Training |
| WP8 | D8.1 | Dissemination Plan and Communication Guideline |
| WP8 | D8.2 | Project Website |
| WP8 | D8.3 | Dissemination Material V1 |
| WP8 | D8.4 | Dissemination Material V2 |
| WP8 | D8.5 | Strategies & Toolkit for Policy-Makers |
| WP8 | D8.6 | Exploitation Plan, Innovation Management and Business Outlook |
| WP8 | D8.7 | Demonstration Tool |

| | | |
|-----|-------|--|
| WP8 | D8.8 | Reports on Dissemination Activities including 'VR Police Training Network' Report V1 |
| WP8 | D8.9 | Reports on Dissemination Activities including 'VR Police Training Network' Report V2 |
| WP8 | D8.10 | VR Police Training Network for LEAs: Mission Statement and Implementation Plan |
| WP8 | D8.11 | SHOTPROS Final Conference Proceedings |

4.3 Allocation of Resources and Data Security

AIT has installed a file storage (locally hosted sharepoint server) for the project data on its own IT premises, located in Giefinggasse 4, A-1210 Vienna. The sharepoint server which stores the research data and their metadata are part of the security concept of AIT's IT department. They are located in a separate extranet section of AIT IT infrastructure and are secured by several firewalls and can exclusively be accessed by registered users via https secured port 443. Backups of the data will regularly be made. The costs for the provision of the server is covered by the overhead cost of AIT.

All electronic data records (questionnaires, audio and video data, observation data) will be stored on AIT's sharepoint server project instance. Access rights will only be available for project staff. Other AIT employees (except for IT-personnel) will have no access. In case that study data is stored locally for analysis reasons, the respective partner employee will handle the data with necessary care and corresponding security measures. Organisational measures to provide data security include: processing of personal data, informed consent forms, confidentiality agreement for workshops and pseudonymization.

A more detailed explanation of the data security in SHOTPROS and the technical and organisational measures that are taken can be found in the deliverables D9.7 "Data safeguard measures" and D9.3 "Data Protection Officer".

4.4 Data Management Life Cycle

The following figure represents the life cycle that will be followed in the SHOTPROS project for the management of the research data that will be generated and used during the project.

In order to comply with the rules of good scientific conduct and the related storage of primary scientific data, the study data within SHOTPROS will be stored for ten years after the project end. During this time period no external access will be possible except for reasons of science

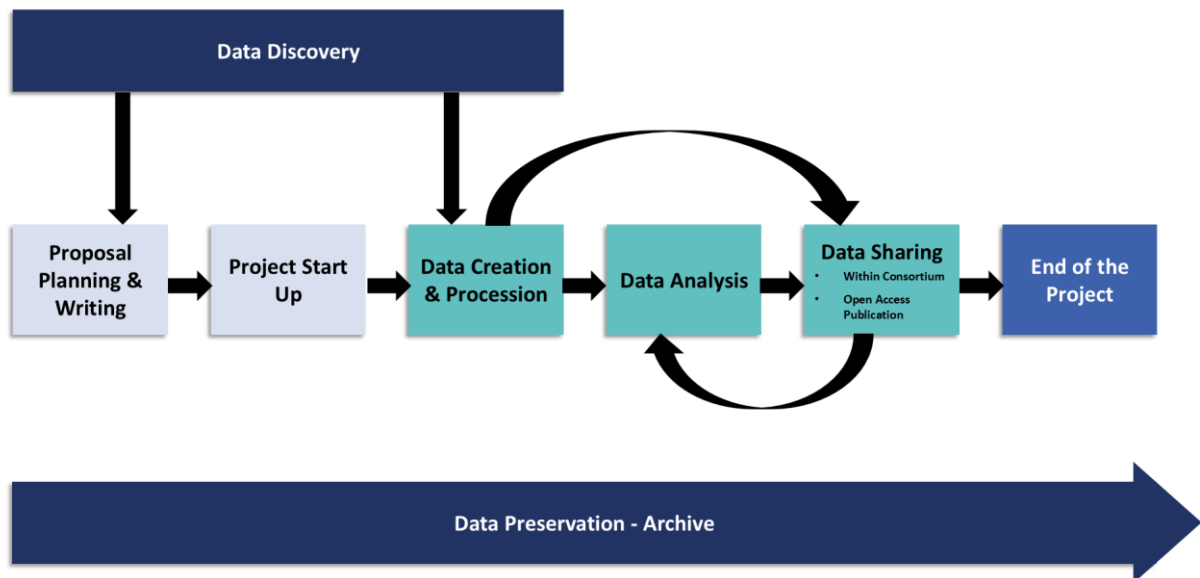


Figure 2: Data Management Life Cycle

5 Ethical Aspects

The ethical aspects concerning data management are described in the deliverables of work package 9 “Ethics requirements” and in deliverable D1.2 “Ethic guidelines and procedures”. These deliverables ensure that ethical requirements are met for all research undertaken in the project, including data management aspects, in compliance with H2020 ethical standards. All partners will assure that the EU standards regarding ethics and data management are fulfilled.