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Emerging technologies for the Early location of Entrapped victims under Collapsed Structures & Advanced Wearables for risk assessment and First Responders Safety in SAR operations

D10.6 Ethical Protocol

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Executive Summary

Partners of the Search and Rescue Consortium commit themselves to adhere to fundamental ethical principles and relevant national, Union and international legislation, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Right. Particular attention shall be paid to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to non-discrimination and the need to ensure high levels of human health protection.

This Ethical Protocol materialises this commitment by identifying the partner's responsibilities and describing the procedures and methodology to ensure that S&R research activities and pilot testing are ethically sound.

In addition, this Deliverable provides guidelines to ensure the compliance of the research activities with EU and national data protection law, including the General Data Protection Regulation (GDPR). It also contains templates of an information sheet and an informed consent form to be presented to all participants in the research and data collection activities to ensure they are fully aware of the extent of their involvement in the project and how their data is safeguarded and used.

Finally, compliance of the project research activities, and hence of the S&R platform and methodology, with ethical standards and guidelines is further ensured through the establishment of an Ethical Board of experts. This Ethical Board will monitor all ethics-related aspects in the S&R project and will consult the project consortium on the potential ethical impacts of the activities undertaken.

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1 Introduction

1.1 Purpose and Scope

The purpose of the present deliverable entitled "Ethical Protocol" is to identify and describe the procedures and methodology to ensure that S&R research activities and pilot testing are ethically sound and that data from research participants is stored according to EU and national regulations to ensure their privacy.

In this context, the present deliverable aims to fulfil the following main objectives:

- Provide guidelines to ensure adherence of the project's partners with ethical requirements imposed by the Grant Agreement.
- Provide recommendations to ensure that the processing of personal data for research purposes by the project's partners comply with the General Data Protection Regulation (GDPR) and its national implementation laws.
- Provide an information sheet and an informed consent form to the project's partners for the purpose of communicating about the project with third parties and involve third parties in events.
- Provide recommendations for the establishment of an Ethical Board (EB) of experts. The latter will monitor all ethics-related aspects in the S&R project and will consult the project consortium on the potential ethical impacts of the activities undertaken during the project's lifecycle.

This Ethical Protocol mainly addresses to the consortium partners who are obliged to comply with its requirements while conducting research activities during the S&R project. This Ethical Protocol does not analyse the legal and ethical issues deriving from the development and deployment of the S&R technologies and platform, which are examined in a dedicated work package (WP2 – "Societal aspects of S&R").

1.2 Structure of the Document

The structure of this document is as follows:

- Section 2 provides an overview of the ethical research principles in H2020 projects and the adherence thereto by the S&R project partners.
- Section 3 describes the privacy and data protection guidelines to be respected by the project partners involved in data processing operations.
- Section 4 contains templates of an information sheet and of an informed consent form to the project's partners for the purpose of communicating about the project with third parties and involve participants in events.
- Section 5 determines the procedure to establish an independent Ethical Board of experts, clarifies its mission statement and composition and provides an overview of its main activity domains.

2 Adherence to ethical research principles

2.1 Ethical principles in H2020 projects

For all activities funded by the European Union, ethics is an integral part of research from beginning to end, and ethical compliance is seen as pivotal to achieve real research excellence. According to the EC, "ethical research conduct implies the application of fundamental ethical principles and legislation to scientific research in all possible domains of research"[1]. In the context of Horizon 2020 projects, this implies that "all the research and innovation activities carried out under Horizon 2020 shall comply with ethical principles and relevant national, Union and international legislation, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocol. Particular attention shall be paid to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to non-discrimination and the need to ensure high levels of human health protection".[2]

Furthermore, in the Grant Agreement, the S&R project consortium committed "to undertake its research in accordance with the Responsible Research and Innovation (RRI) principles as well as in conformity with generally accepted ethical principles for scientific research, embodied e.g. in ALLEA (All European Academies)'s European Code of Conduct for Research Integrity". By consequence, in addition to the above-mentioned ethical research principles, the consortium partners are also bound by the following research integrity principles[3]:

- Reliability in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources;
- Honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way;
- Respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment;
- Accountability for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts.

All partners of the consortium are fully committed and agree to collaborate for the fulfilment of their above-mentioned ethical responsibilities.

[1] Horizon 2020 Online Manual, available at https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm
[2] Article 19, §1 of Regulation (EU) no 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC.
[3] The European Code of Conduct for Research Integrity, p.4.

2.2 Implementation in the S&R project

Article 34.1 of the Grant Agreement provides that "the beneficiaries must carry out the action in compliance with: (a) ethical principles (including the highest standards of research integrity) and (b) applicable international, EU and national law. […] The beneficiaries must ensure that the activities under the action have an exclusive focus on civil applications. […] In addition, the beneficiaries must respect the fundamental principle of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity […] and means that beneficiaries must ensure that persons carrying out research tasks follow the good research practices and refrain from the research integrity violations described in this Code".

- As regards research integrity, Deliverable D10.1 entitled "Project Handbook, Quality Plan & Risk Management" contains a Section 5 in which procedures of internal audit of project results are specified;
- Concerning compliance with applicable international, EU and national law, Article 34.2 of the Grand Agreement adds that "activities raising ethical issues must comply with the 'ethics requirements' set out as deliverables in [WP11 of the DoA]".

The next sections of this Deliverable provide an overview of the implementation of the ethical requirements in the S&R project.

2.2.1 Copies of opinions/approvals by ethics committees and/or competent authorities

The S&R project will include adult human participants in a number of information gathering activities such as interviews, workshops, and focus groups. Furthermore, seven pilot trials will take place in training grounds and live demonstrations in challenging environments (e.g. mountain rescue, fire defence, chemical spill).

Deliverable D11.3 entitled "H - Requirement No. 3" which is due at M9 must contain "copies of opinions/approvals by ethics committees and/or competent authorities for the research with humans must be obtained and confirmation sent to the REA. The opinions/approvals should address the research which includes participants during the lab trials and field demonstrations at all locations".

It should be noted that Ethical Requirement n°3 is closely related to both "D11.1 : H - Requirement No. 1" and "D11.2: H - Requirement No. 2" which are addressed in Section 3 of this Deliverable.

In order to comply with Ethical Requirement No. 3, before the beginning of each research activity involving human participants, each beneficiary must have obtained:

(a) An ethics committee opinion. If there is no proper structure to provide authorisations/approvals in the institution performing research involving participants, based on the principle of proportionality and according to practice, an ethics opinion may be given, for example, by: the University committee of the co-ordinator, the University committee of another research partner, approval from a relevant authority in the country (if applicable), ethics review by the European Commission. In S&R, if there is no proper structure to provide authorisations/approvals in the institution performing research involving participants, the S&R Ethics Board is competent.

(b) Any notification or authorisation for activities raising ethical issues required under national and/or European law needed for implementing the action tasks in question.

Before conducting an activity involving human participants, each partner must carefully describe this activity, obtain the above-mentioned opinion/notification or authorisation and transmit these documents to NTUA which is the lead partner responsible of D11.3. If these documents are not in

English, they must be submitted together with an English summary, which shows that the action tasks in question are covered and includes the conclusions of the committee or authority concerned (if available).

The table hereunder lists the partners conducting research activities involving participation of humans, identifies such activities and the ethical opinions and or approvals that are required.

Table 1: Copies of ethical opinions/approvals

Partner	Research activity involving humans	Opinions/approvals by ethics committees and/or competent authorities
PROECO-CBRNE	Workshop on end-user requirements	Vasile Somoghi, Mircea Cernat
SAN	Semi-structured interviews with key informants on the role of the civil society in Crisis Management	Ethical Committee at Spoleczna Akademia Nauk (SAN) led by Dr Grzegorz Ignatowski, gignatowski@san.edu.pl
SAN	Focus groups with societal actors	Ethical Committee at Spoleczna Akademia Nauk (SAN) led by Dr Grzegorz Ignatowski, gignatowski@san.edu.pl
CNR	Pilot trial research activities corresponding to UC1 Questionnaires	Ethic Committee of Palermo
HRT	Pilot trial research activities corresponding to UC2	No ethical comittee. Contact Person Iosif Vourvachis (i.vourvachis@hrt.org.gr)
JOAFG	Pilot trial research activities corresponding to UC3	n/a (no national requirements for exercises/questionnaires etc.), Data Protection Officer: Leopold Weninger (datenschutzbeauftragter@johanniter.at)
JUH	Pilot trial research activities corresponding to UC3	n/a
EPAYPS	Pilot trial research activities corresponding to UC4	Antonios Koukouzas, Panagiotis Petropoulos, Michail Chalaris
PUI	Pilot trial research activities corresponding to UC5	To be identified
PROECO-CBRNE	Pilot trial research activities corresponding to UC6	Vasile Somoghi, Mircea Cernat
SERMAS	Pilot trial research activities corresponding to UC7	To be identified

ESDP	Pilot trial research activities corresponding to UC7	To be identified
EPAYPS	Questionnaires and interviews with pilot end users	Antonios Koukouzas, Panagiotis Petropoulos, Michail Chalaris
SYNYO	To be identified	No ethical committee. Contact persons: Dr. Florian Huber, Niklas Hamann
KT	To be identified	Georgia Papaioannou, gpapaioannou@konnektable.com , Legal Research Consultant, Rosanna Babagiannou, rbabagiannou@konnektable.com , DPO
UNIFI	To be identified	https://www.unifi.it/p11773.html
UBITECH	To be identified	Contact person: Eleonora Papatsoutsou (epapatsoutsou@ubitech.eu)
UHasselt	To be identified	https://www.uhasselt.be/UH/Responsible-research-and-integrity/Ethics-Committees.html
AIDEAS	To be identified	No ethical committee. Contact person for ethical issues Mr. Patrik Karlsson, p.karlsson@aideas.eu
NTUA	To be identified	https://www.elke.ntua.gr/en/ethics-committee/members-of-ethics-committee/
PSCE	To be identified	Marie-Christine Bonnamour
UGL	To be identified	Takis Kotis takiskotis@ukemedglobal.com
CERTH	To be identified	CERTH has an Ethics Committee. The administrative contact person for the Ethics Committee is Ms. Fotini, Kopani (kopani@certh.gr). In communiations, please also cc Ioannis Benekos (ibenekos@certh.gr) for follow up purposes.
THALIT	To be identified	https://www.thalesgroup.com/en/corporate-responsibility-italy

2.2.2 Compliance with health and safety procedures

During the S&R project, a certain number of field demonstrations with first responders will take place at training locations and at public locations. These pilots will include the use of RPAS/drones and will test remote sensing technologies for early warning of toxicity and radiation exposure. Health and safety measures for the researchers and research participants (first responders) during the testing of these technologies must be identified and followed. Moreover, when legally required, authorisations for the flying of UAVS must be obtained.

In deliverable D11.5 entitled "EPQ - Requirement No. 5" which is due at M9, "the applicant must demonstrate that appropriate health and safety procedures conforming to relevant local/national

guidelines/legislation are followed for all researchers and research participants involved in the field pilots. Health and safety procedures must also be described for the technology development in remote sensing technologies for early warning of toxicity and radiation exposure. This includes confirmation of permissions for the flying of UAVs at the pilot demonstration sites".

In order to comply with Ethical Requirement No. 5, each partner involved in demonstrations or field pilots should identify whether health and safety procedures are imposed by local/national guidelines/legislation. If applicable, before conducting demonstrations or pilots, each partner should describe these procedure(s) and notify to NTUA the documents justifying compliance with the identified national or local requirements.

The table hereunder lists the partners which are involved in field pilots/demonstrations and, if applicable, identifies the local/national guidelines/legislation imposing health and safety procedures or permissions.

Table 2 : Health and safety procedures

Lead partner	Pilot/demonstration	Local/national guidelines/legislation
SIMAVI	S&R Use Case 6: Resilience Support for Critical Infrastructures through Standardized Training on CBRN (Romania)	Occupational health and safety management system certified according to ISO 45001:2018 Law no. 319/2006 on occupational health and safety
PUI	S&R Use Case 5: Victims trapped under rubbles (France)	The conditions will follow a real-life situation according to the United Nations INSARAG standards. Regarding the medical team (Emergency Medical Team), the guidelines of WHO will be used.
JOAFG	Use Case 3: Earthquake / heavy storms between Vienna Rail Station & Kufstein railway station heavy damages in the rail station (Austria)	UN INSARAG standards, local safety guidelines of the military training area Blumau
KT	Technical Support Partner for Use Case 5: Victims trapped under rubbles (France), Use Case 6: Resilience Support for Critical Infrastructures through Standardised Training on CBRN (Romania) & Use Case 7: Chemical substances spill (Spain)	Occupational safety and health controls, Chemical Agents Directive (CAD) and REACH, PPE Regulation Guidelines - EU 2016/425
HRT	S&R Use Case 2: Plane crash, mountain rescue, non-urban (Greece)	Occupational safety and health controls. Regulation 1432.52/93/26.7.93

PROECO	S&R Use Case 6: Resilience Support for Critical Infrastructures through Standardized Training on CBRN (Romania)	Law no. 15 of February 28, 2005 for the approval of the Government Ordinance no. 21/2004 on the National Emergency Management System
CERTH	S&R Use Case 2: Plane crash, mountain rescue, non-urban (Greece), S&R Use Case 4: Forest fire expanded and threat to industrial zone (Greece)	The health monitor will be according to the ISO guidelines IEC 80601-2-49:2018 Medical electrical equipment — Part 2-49: Particular requirements for the basic safety and essential performance of multifunction patient monitoring equipment
CERTH	S&R Use Case 2: Plane crash, mountain rescue, non-urban (Greece), S&R Use Case 4: Forest fire expanded and threat to industrial zone (Greece)	The command centre will follow the ISO guidelines 22320:2018 Security and resilience — Emergency management — Guidelines for incident management
SAN	n/a	n/a
UGL	n/a	n/a
CNR	S&R Use Case 1: Victims trapped under rubbles (Italy)	Legislative Decree April 9th, 2008, N° 81 Decree April 13th, 2011 Prime Ministerial Decree November 28th, 2011, N° 231 Decree January 12th, 2012 Decree of Chief of the National Department of Civil Protection of January 12th, 2012 Decree November 25th, 2013
UNIFI	S&R Use Case 1: Victims trapped under rubbles (Italy)	Council Directive 89/391/EEC, June 12th, 1989 - Legislative Decree 81/08, April 9th, 2008 – Chemical agents directive and reach, PEE regulation guidelines EU 2016/425
THALIT	S&R Use Case 1: Victims trapped under rubbles (Italy); Use Case 3: Earthquake / heavy storms in the rail station (Austria-Germany); Use Case 5: Victims trapped under rubbles (France)	To be identified
EPAPYS	S&R Use Case 4: Forest fire expanded and threat to industrial zone (Greece)	UN INSARAG standards, Occupational health and safety management system certified according to ISO 45001:2018

		Law no. 3850/2010 on occupational health and safety, Safety Guidelines from SOPs of the Hellenic Fire Corps
MAG	S&R Use Case 1: Victims trapped under rubbles (Italy)	To be identified
JUH	S&R Use Case 3: Earthquake / heavy storms in the rail station (Austria-Germany)	UN INSARAG standards, local safety guidelines of the area

2.2.3 Trans-boundary movement of technologies or materials

Some of the technologies (e.g. autonomous drones/robotics, sensors, LIDAR, IMU, GNSS) tested in the S&R project could have dual-use application in the sense of Regulation 428/2009 and 388/2012. Export licences and relevant authorisations compliant with Reg. 428/2009 and 388/2012 may need to be obtained prior to using/transferring this technology during the field demonstrations.

Article 2.1 of Regulation 428/2009 defines "dual use items" as "items, including software and technology, which can be used for both civil and military purposes, and shall include all goods which can be used for both non-explosive uses and assisting in any way in the manufacture of nuclear weapons or other nuclear explosive devices". The regime applicable to such dual use items can be described as follows:

- Annex I of Regulation 428/2009 (updated in 388/2012 and in further publications by the Wassenaar Arrangement) includes a list covering all goods that are subject to export controls: if a good is mentioned in the list, it is subject to export controls, and cannot be exported without an export authorisation. All dual-use goods are classified in one of the 10 categories of Annex 1. Pursuant to Article 4 or Article 8 of said Regulation, an authorisation may also be required for the export to all or certain destinations of certain dual-use items not listed in Annex I.
- The export of dual-use goods is subject to export controls. Article 2(2) of Regulation 428/2009 defines "export" of goods as an export procedure within the meaning of Article 269 Union Customs Code, i.e. goods leaving the customs territory of the Union, and re-export within the meaning of Article 270, i.e. non-Union goods to be taken out of the customs territory of the Union, not including goods in transit. It should be noted that the notion of "export" includes "transmission of software or technology by electronic media, including by fax, telephone, electronic mail or any other electronic means to a destination outside the European Community; it includes making available in an electronic form such software and technology to legal and natural persons and partnerships outside the Community. Export also applies to oral transmission of technology when the technology is described over the telephone".
- For almost all dual-use goods, a community general export authorisation is required. This export authorisation is valid throughout the Community for exports to the following destinations: Australia, Canada, Japan, New Zealand, Norway, Switzerland, United States of America. However, for certain specified clearly dangerous goods such as uranium and pathogens, other types of licences are required. This also applies for export of dual-use goods to other destinations than the listed ones.

Deliverable D11.6 entitled "DU - Requirement No. 6" which is due on M9 provides that " in case the trans-boundary movement of technologies or materials (e.g. autonomous drones/robotics, sensors, LIDAR, IMU, GNSS) are foreseen, the applicant must consult with the national export control authority to clarify the need for export control licences in the sense of Regulation (EC) 428/2009. In case such licenses are required, a confirmation that copies of export licenses have been obtained must be submitted".

In order to comply with Ethical Requirement n°6, each partner should identify whether the legal regime of Regulation 428/2009 applies to his foreseen export(s) of goods. If yes, the required export licences should be obtained and communicated to NTUA which is the lead project partner responsible for Deliverable D11.6. In case of doubt, partners should consult their national export control authority and report to NTUA.

The table hereunder lists partners foreseeing the export of dual-use technologies or material as well as their destination and the identified need for export control licences.

Table 3: Consultations with national export control authorities

Partner	Dual-use technologies or materials being exported and destination	Need for export control licence(s)
SIMAVI	n/a	n/a
PUI	Need to pass the French customs. Dual-use technologies to be identified.	yes
JOAFG	n/a	n/a
NTUA (RESCUE-MIMS)	n/a	n/a
PROECO	n/a	n/a
CERTH	The pilots that CERTH participates takes place in Greece, therefore no material or technology will be exported.	n/a
SAN	n/a	n/a
UGL	n/a	n/a
CNR	The pilot under the CNR responsibility will take place in italy, so no material or technology will be exported	n/a
UNIFI	The pilot that UNIFI will participate in will take in Italy. No dual-use materials or technologies will be exported.	n/a
KT	KT will provide wearables to pilots which will be executed in EU	No need as the wearables will be used in field trials in EU members states and won't be sent to third countries

UBITECH	n/a	n/a
MAG	n/a	n/a
JUH	n/a	n/a
AIDEAS	n/a	n/a
HRT	n/a	n/a
UNICA	None	As KT
THALIT	LiDAR sensor technology but not classified as dual use.	No need for export control license.

2.2.4 Other Ethical Requirements

2.2.4.1 Other ethical Requirements foreseen in WP11

In addition to the three above-mentioned Ethical Requirements ("H - Requirement No. 3", "EPQ - Requirement No. 5" and "DU - Requirement No. 6") which are addressed in the previous sections, the following Ethical Requirements are dealt with in the respective sections of this Deliverable:

- Ethical Requirement "POPD - Requirement No. 4" is addressed in Section 3 of this Deliverable entitled "Privacy and data protection guidelines".
- Ethical Requirements "H - Requirement No. 1" and "H - Requirement No. 2" are addressed in Section 4 of this Deliverable entitled "Information sheet and informed consent form".
- Ethical Requirements "GEN - Requirement No. 7", "GEN - Requirement No. 8" and "GEN - Requirement No. 9" are addressed in Section 5 of this Deliverable entitled "Establishment of the Ethical Board".

2.2.4.2 Other ethical issues identified by the Ethical Board

As described in Section 5 of this Deliverable, in addition to the Ethical requirements foreseen in WP11, the Ethical Board may raise supplementary ethical issues.

As recommended by the Ethics summary report, one of these important supplementary issues could be the respect of principles outlined in the "Ethics Guidelines for Trustworthy Artificial Intelligence"[4] should the S&R project consider AI supported operational infrastructure. The development of such infrastructure must be guided, amongst others, by adherence to the ethical principles of respect for human autonomy, prevention of harm, fairness and explicability.

From a methodological point of view, account will be taken of the "Ethic Evaluation Standard for Security Research" (EESSR). The EESSR model is based on the MEESTAR (Model for the Ethical Evaluation of Socio-Technical Arrangements), with reference to security research as well as practical relevance. Results aim to support the technological development and ease the usability. The EESSR fosters the identification of ethical issues in advance or during the development and supports to take them into account in further phases as technology systems and/ or its elements must be sketched and subsequently discussed in regard of their influence on ethical matters. Further, it enables the users to structure, assess and allocate ethical issues to relevant tasks and facilitates a reflexion and the

[4] Independent high-level expert group on artificial intelligence set up by the European Commission, Ethics guidelines for trustworthy AI, made public on 8 April 2019.

visualising of ethical aspects for relevant finished tasks. But most important and wide-ranging, the developers get sensitized for the topic and a common understanding about the vision and the importance of ethical considerations is created.

Following main questions define the application areas, support the understanding and make its necessity more transparent:

- Are technologies used or related research processes critical from an ethical point of view?
- Which specific ethical challenges arise from developing, testing and using the technology?
- Can the defined ethical issues/ problems be mitigated or even solved? If yes, which potential solutions are possible?
- Are there ethical issues so critical that development, testing and/ or using the system has to be stopped?
- Have unexpected critical problems occurred, which have not been assessable before? How do you deal with them?
- Which aspects and functionalities need to be considered explicitly from an ethical point of view when developing, testing and using the system?

3 Privacy and data protection guidelines

3.1 Scope and purpose of these guidelines

3.1.1 Scope

The S&R project will touch on privacy and data protection issues by collecting data from project participants via the requirements analysis, project workshops and events as well as the project demonstrations/pilots and their evaluation.

Specifically, such personal data processing operations may include contact data (such as name, e-mail, etc) collected as part of the dissemination work but also personal data in relation to the examination of any media sources (e.g., Twitter data). In addition, in some cases (e.g., to arrange or reimburse travel or accommodation expenses) it may be necessary to collect supplementary personal data, such as home address, telephone numbers or bank information of participants. Other potential collection and processing of personal data may include answers to questionnaires and surveys conducted during the project. Additionally, in the context of demonstration and pilots, localisation data of participants as well as data generated by Internet of Things might be processed.

Protection of personal data is mainly regulated at European level by the General Data Protection Regulation[5] (hereafter "GDPR") as implemented by the Member States' national laws. The GDPR contain rules applying to the processing of personal data taking place in the context of scientific research. Recital 159 of the GDPR indicates that "the processing of personal data for scientific research purposes should be interpreted in a broad manner including for example technological development and demonstration, fundamental research, applied research and privately funded research". Hence, it makes no doubt that information collected and processed in the context of the S&R project must respect the GDPR when the following conditions are fulfilled:

- Article 4 (1) of the GDPR defines personal data as "any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person".
- Article 4 (2) of the GDPR defines processing as "any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organisation, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction".

3.1.2 Purpose

The purpose of these privacy and data protection guidelines is to ensure that any processing of personal data in the context of the S&R project complies with:

- Article 8 of the European Convention on Human Rights;

[5] 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)

- Articles 7 and 8 of the Charter of Fundamental Rights of the European Union;
- The GDPR;
- Directive 2002/58/EC of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) and its national implementing laws.

By carefully applying these guidelines and document their implementation, the S&R consortium will ensure that the project complies with applicable EU data protection legislation taking into the opinions and guidelines of the European Data Protection Board and of national Data Protection Authorities.

3.2 Roles and responsibilities

Managing the research data collected and processed during the course of a large-scale multi-disciplinary project requires careful consideration. The next sections describe the roles and responsibilities of:

- NTUA which is the lead partner responsible for Deliverable D11.4 entitled "POPD - Requirement No. 4", for Deliverable D10.2 entitled "Data Management Plan 1st version" as well as for D10.3 entitled "Data Management Plan final version".
- Partners involved in personal data processing operations which should be accountable for legal compliance and timely provide to NTUA the information needed to submit the aforementioned deliverables.

3.2.1 NTUA

3.2.1.1 POPD - Requirement No. 4

NTUA has been designated as the lead partner in charge of Deliverable D11.4 entitled "POPD - Requirement No. 4" which is due on at M6. In that deliverable, "the applicant must check if special derogations pertaining to the rights of data subjects or the processing of genetic, biometric and/or health data have been established under the national legislation of the country where the research takes place and submit a declaration of compliance with respective national legal framework(s). The host institutions must confirm that it has appointed a Data Protection Officer (DPO) and the contact details of the DPO are made available to all data subjects involved in the research. For host institutions not required to appoint a DPO under the GDPR a detailed data protection policy for the project must be submitted. The applicant must explain how all of the data they intend to process is relevant and limited to the purposes of the research project (in accordance with the 'data minimisation' principle). Description of the anonymisation/pseudonymisation techniques that will be implemented must be submitted. An explicit confirmation that the data used in the project is publicly available and can be freely used for the purposes of the project must be submitted. In case of further processing of previously collected personal data, an explicit confirmation that the applicant has lawful basis for the data processing and that the appropriate technical and organisational measures are in place to safeguard the rights of the data subjects must be submitted".

In order to comply with Ethical Requirement n°4, NTUA should gather the following information from each project partner involved in personal data processing operations:

1. For each personal data processing operation which is performed by a project partner in the context of S&R, the communication of the existence of such operation as well as:
    a) the role of the project partner in the data processing operation (controller, joint-controller, processor) and, where applicable, the name and contact details of the processor or processors and of each controller on behalf of which the project partner is acting;

b) the specified purposes of the processing for which the personal data are intended as well as the legal basis for the processing;

c) a description of the categories of personal data intended to be processed and an explanation describing why the data are adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed ('data minimisation');

d) a description of the data subjects and if applicable, the identification of vulnerable data subjects;

e) from which source the personal data originate, and if applicable, whether it came from publicly accessible sources and an explicit confirmation that such publicly available data may be freely used for the purposes of the project;

f) where applicable, the list of categories of recipients to whom the personal data have been or will be disclosed including recipients in third countries or international organisations;

g) where applicable, transfers of personal data to a third country or an international organisation, including the identification of that third country or international organisation and the documentation of suitable safeguards;

h) the envisaged time limits for erasure of the different categories of data;

i) the description of the anonymisation/pseudonymisation techniques that will be implemented on the personal data being processed or, if no such techniques are being implemented, an explanation describing why the purposes cannot be achieved with pseudonymised or anonymised data;

j) a general description of the technical and organisational security measures being implemented;

k) the list of applicable rights of data subjects, and/or, if applicable, the legal basis for derogation to these rights.

2. In addition, if the project partner intends to process sensitive data in the sense of Article 9(1) of the GDPR:
   a) the categories of such sensitive personal data;
   b) the identification of the derogation of Article 9(2) of the GDPR which apply.
   c) a declaration of compliance with national law.
3. The contact details of the project partner's Data Protection Officer and a confirmation that the contact details of the DPO are made available to all data subjects involved in the research. For host institutions not required to appoint a DPO under the GDPR a detailed data protection policy for the project must be submitted.

In order to collect the above-mentioned information from partners involved in data processing operations, NTUA may use the template contained in Annex I.

3.2.1.2 Data Management Plan

Article 29.3 of the Grant Agreement imposes the development of a Data Management Plan (DMP) in order to guarantee open access to research data. The general aim of this DMP is to ensure that the project partners deposit research data in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — these research data.

Being the coordinator of the S&R project, NTUA has been designated as the lead partner in charge of drafting two versions of the Data Management Plan (D10.2 – « Data Management Plan 1st version » due at M6 and D10.3 – « Data Management Plan final version » due at M35).

When developing the Data Management Plan, NTUA will take into account:

- the "Template Horizon 2020 data management plan (DMP) according to which all research data should be 'FAIR', that is findable, accessible, interoperable and re-usable.
- the "Opinion on data protection and scientific research" of the European Data Protection Supervisor[6].

The Data Management Plan will describe in details the datasets and the data (e.g. models, data schemas and instances) that will be publicly available, conforming to the voluntary participation to the Open Research Data Pilot. In this plan, the open research data retention and destruction strategy will be also reported along with the limits on their secondary use and their disclosure to third parties. A number of critical factors that are relevant for data retention will be taken into account, namely: i) Purpose of retaining data, ii) Type of open data collected, iii) Policy access to the open data, iv) Data storage, security and protection measures and v) Confidentiality and anonymity of data.

3.2.2 Partners involved in personal data processing operations

Project partners involved in personal data processing operations have the responsibility to collect and submit to NTUA the information needed for Deliverable D11.4 and for the Data Management Plan. For this, purpose, they may fill the template contained in Annex I.

The next sections provide some guidelines to project partners in their task to communicate the abovementioned information to NTUA.

3.2.2.1 Broad definition of personal data

The GDPR contains a broad definition of the notion of "personal data". Hence, unduly restricting the interpretation of the concept of personal should also be avoided in order to ensure full consistence with EU regulatory requirements. The concept of "personal data" includes not just factual and objective records (name, date of birth, address, occupation, bank account number, e-mail address) but also subjective opinions, intentions and predictions, either correct or incorrect, about individuals, regardless of their position of capacity (as citizen, consumer, employee, customer, patient, etc.), and regardless of the format or medium on which that information is contained (consortium partners' servers and computers, users' mobile devices, audio and video recordings of participants, e-mails to participants, etc). Furthermore, data must be considered "relating" to a certain person as from the moment in can certain way or influence the status or behaviour of an individual (for example by providing a particular user with recommendations). As for the term "identifiable", the main point about identification of a person is not whether one knows his/her name, but, on the contrary, whether the person can be distinguished from others as recalled by recital 26 of the GDPR which states that "to determine whether a natural person is identifiable, account should be taken of all the means reasonably likely to be used, such as singling out".

[6] EDPS, Preliminary Opinion on data protection and scientific research, 6 January 2020 https://edps.europa.eu/data-protection/our-work/publications/opinions/preliminary-opinion-data-protection-and-scientific_en

All S&R project partners involved in data processing operations are committed to take into account this broad definition of personal data. In order to comply with Ethical Requirement "POPD - Requirement No. 4", the existence of every processing of personal data should be communicated to NTUA in order to be included in D11.4.

3.2.2.2 Role of the project partner in the data processing operation

For each data processing operation in which a project partner is involved, this partner should determine whether he acts a controller, joint-controller or processor and communicate this information to NTUA.

- Article 4(7) of the GDPR defined the controller as « the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data »;
- Article 4(8) of the GDPR defines the processor as « the natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller ».

These concepts are further detailed in the European Data Protection Boards' Guidelines 07/2020[7].

3.2.2.3 Purpose of the processing and legal basis

Specification of purpose is an essential first step in applying data protection laws and designing data protection safeguards for any processing operation. Indeed, specification of the purpose is a pre-requisite for applying other data quality requirements, including the adequacy, relevance, proportionality and accuracy of the data collected and the requirements regarding the period of data retention. For guidance, the Article 29 Working Party issued a specific Opinion 03/2013 on purpose limitation[8].

In addition, Article 6 of the GDPR lists six bases making a processing of personal data lawful: consent, necessary for the performance of a contract, compliance with a legal obligation, necessary to protect vital interests, necessary for the performance of a task carried out in the public interest, necessary for the purposes of the legitimate interests. It is the responsibility of each project partner to identify the correct basis of lawfulness for the processing operations of which they are controller.

Each project partner is committed to communicate to NTUA the legitimate purpose and the basis of lawfulness of each processing operation in which he is involved.

3.2.2.4 Data minimisation principle

Article 5 of the GDPR imposes personal data to be "adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed ('data minimisation')".

The principle of "data minimisation" means that a data controller should limit the collection of personal information to what is directly relevant and necessary to accomplish a specified purpose. In other words, data controllers should collect/process only the personal data they really need.

[7] EDPB, Guidelines 07/2020 on the concepts of controller and processor in the GDPR, version 1.0, adopted on 2 September 2020
https://edpb.europa.eu/our-work-tools/public-consultations-art-704/2020/guidelines-072020-concepts-controller-and-processor_fr

[8] Article 29 Working Party, Opinion 03/2013 on purpose limitation, adopted on 2 April 2013
https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2013/wp203_en.pdf

For each data processing operation in which he is involved, each project partner is accountable to provide to NTUA a description of the categories of personal data intended to be processed and an explanation describing how the data complies with the data minimisation principle.

3.2.2.5 Processing of data concerning vulnerable data subjects

Some categories of data subjects are considered as being "vulnerable" by the GDPR because of the increased power imbalance between the data subjects and the data controller, meaning the individuals may be unable to easily consent to, or oppose, the processing of their data, or exercise their rights. Vulnerable data subjects may include children (they can be considered as not able to knowingly and thoughtfully oppose or consent to the processing of their data), employees, more vulnerable segments of the population requiring special protection (mentally ill persons, asylum seekers, or the elderly, patients, etc.), and in any case where an imbalance in the relationship between the position of the data subject and the controller can be identified.

All project partners are committed to communicate to NTUA a description of the data subjects of which they process personal data and, if applicable, the existence of data processing operations concerning vulnerable data subjects. If data concerning vulnerable data subjects are processed, partners should also communicate to NTUA the implemented mitigation measures.

3.2.2.6 Derogation needed to process sensitive data

Article 9 of the GDPR identifies "special categories" of personal data as follows "personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation".

In principle, the processing of such sensitive data is prohibited. However, article 9(2) of the GDPR lists derogations permitting such processing operations.

All project partners are committed to communicate to NTUA the existence of sensitive processing operations and to identify the derogation allowing for such processing.

In addition, if sensitive data are processed by a partner, this partner must communicate to NTUA a declaration of compliance with the applicable national law implementing the GDPR.

3.2.2.7 Source of the personal data

Personal data can be obtained in two manners: either directly from the data subject or from other sources. For each processing activity in which a project partner is involved, this partner is committed to communicate to NTUA to from which source the personal data originate.

Project partners should be aware that personal data which are "publicly available" - such as those collected from social media sites - are still personal data. It is the legal responsibility of each project partner involved in a data processing operation to ensure that the publicly available data may be used for the purposes of the project and to communicate to NTUA that this analysis has been carried out. In case of further processing of previously collected personal data, an explicit confirmation that the partner has a lawful basis must be communicated (along with the identification of that lawful basis).

3.2.2.8 List of recipients

Article 4(9) of the GDPR defines recipient as being "a natural or legal person, public authority, agency or another body, to which the personal data are disclosed, whether a third party or not. This includes

anyone that processes the personal data on your behalf, internally in your organisation, as well all as external organisations to which the personal data are disclosed.

For each data processing activity in which a project partner is involved as controller, this partner is committed to communicate to NTUA the names of the recipients or the categories that they fall within. Projects partners should be as specific as possible if they only communicate to NTUA the categories of recipients to which the personal data are disclosed. Moreover, when applicable, each project partner is committed to communicate to NTUA recipients which are located in third countries (i.e. countries other than the EU member states and the three additional EEA countries) or which are international organisations.

3.2.2.9 Transfers to third countries

The protection offered by the GDPR travels with the data, meaning that the rules protecting personal data continue to apply regardless of where the data lands. This also applies when data is transferred to a third country (i.e. a country other than the EU member states and the three additional EEA countries).

The GDPR provides different tools to frame data transfers from the EU to a third country:

- a third country may be declared as offering an adequate level of protection through a European Commission decision ("Adequacy Decision"). At the time writing, these countries are Andorra, Argentina, Canada (only commercial organisations), Faroe Islands, Guernsey, Israel, Isle of Man, Jersey, New Zealand, Switzerland, Uruguay and Japan. With the judgment "Schrems II" of July 16, 2020 (in case C-311/18), the ECJ declared the Commission's Implementing Decision (EU) 2016/1250 of July 12, 2016 in accordance with Directive 95/46/EC of the European Parliament and the Council on the adequacy of the EU-US data protection shield (Privacy Shield) invalid with immediate effect. Data transmissions to the USA cannot therefore be based on the Privacy Shield. Data transfers to the USA require other guarantees, according to Art. 44 et seq. GDPR, to create an appropriate level of data protection.
- in the absence of an Adequacy Decision, a transfer can take place through the provision of appropriate safeguards and on condition that enforceable rights and effective legal remedies are available for individuals. Such appropriate safeguards include binding corporate rules, (standard) contractual clauses, adherence to a code of conduct or certification mechanism together with obtaining binding and enforceable commitments from the recipient.
- finally, if a transfer of personal data is envisaged to a third country that isn't the subject of an Adequacy Decision and if appropriate safeguards are absent, a transfer can be made based on a number of derogations for specific situations listed in Art. 49 of the GDPR.

Each Project partner involved in data processing operations in which personal data are intended to be transferred to a third country (or international organisation) is committed to communicate to NTUA the existence of such intended data transfer. In addition, it is the responsibility of the project partner to document suitable safeguards to allow the intended transfer and to communicate to NTUA this documentation.

3.2.2.10 Storage limitation

Article 5(e) of the GDPR imposes personal data to be "kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed".

Each partner involved in a data processing operation is committed to respect the storage limitation principle and to communicate to NTUA the envisaged time limits for erasure of the different categories of data being processed.

3.2.2.11 Anonymisation or pseudonymisation

In order to meet the specificities of processing personal data for scientific research purposes, article 5(e) of the GDPR indicates that personal data may be stored for longer periods insofar as the personal data will be processed solely for such purposes and that appropriate technical and organisational measures are implemented. Article 89 of the GDPR adds that those measures may include anonymisation/pseudonymisation techniques provided that those purposes can be fulfilled in that manner. Where those purposes can be fulfilled by further processing which does not permit or no longer permits the identification of data subjects, those purposes shall be fulfilled in that manner.

In other words, article 89 of the GDPR recommends "anonymisation" of data processed for research purposes. If this is not feasible, the possibility of "pseudonymisation" of data should be examined. The concepts of "anonymisation" and "pseudonymisation" are examined hereunder:

- "Anonymisation" of data means processing it with the aim of irreversibly preventing the identification of the individual to whom it relates. Data can be considered anonymised when it does not allow identification of the individuals to whom it relates, and it is not possible that any individual could be identified from the data by any further processing of that data or by processing it together with other information, which is available or likely to be available.
- "Pseudonymisation" of data means replacing any identifying characteristics of data with a pseudonym, or, in other words, a value, which does not allow the data subject to be directly identified. Pseudonymisation should be distinguished from anonymisation, as it only provides a limited protection for the identity of data subjects as it still allows identification using indirect means. Indeed, where a pseudonym is used, it is possible to identify the data subject by analysing the underlying or related data.

Additional guidance on anonymisation techniques can be found in Opinion 05/2014 of the Article 29 Working Party[9]. Additional guidance on pseudonymisation techniques can be found in a dedicated report of ENISA[10].

For each data processing activity in which a project partner is involved as controller, this partner is committed to analyse whether anonymisation is possible to achieve the determined purpose and communicate to NTUA the anonymisation techniques that are implemented. If it is not possible to achieve the purpose with anonymised data, this partner should consider pseudonymisation and communicate to NTUA the pseudonymisation techniques that are implemented. In last resort, if the purpose cannot be fulfilled with pseudonymised data, this partner is committed to communicate to NTUA an explanation describing why the purposes cannot be achieved with anonymised or pseudonymised data.

[9] Article 29 Working Party, Opinion 05/2014 on Anonymisation Techniques, adopted on 10 April 2014. https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2014/wp216_en.pdf

[10] ENISA, Pseudonymisation techniques and best practices, adopted on 3 December 2019. https://www.enisa.europa.eu/publications/pseudonymisation-techniques-and-best-practices/at_download/fullReport

3.2.2.12 Security measures

Article 32 of the GDPR impose data controllers and data processors to implement appropriate technical and organisational measures to protect personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, in particular where the processing involves the transmission of data over a network, and against all other unlawful forms of processing.

These security measures should take into account the state of the art, the cost of their implementation, the risks represented by the processing and the nature of the data to be protected.

Each project partner involved in personal data processing activities is committed to communicate to NTUA a general description of the technical and organisational security measures being implemented.

3.2.2.13 Data subject rights

To help data subjects in being assured of the protection and privacy of their personal data, GDPR empowers data subjects with certain rights. The list of applicable rights depends on the basis of lawfulness of the processing. For each data processing operation in which a project partner is involved, this partner is committed to communicate to NTUA the list of applicable rights of data subjects, and/or, if applicable, the legal basis for derogation to these rights.

3.2.2.14 Data Protection Officer

Under the GDPR, it is mandatory for certain controllers and processors to designate a Data Protection Officer (DPO). This is the case for all public authorities and bodies (irrespective of what data they process), and for other organisations that - as a core activity - monitor individuals systematically and on a large scale, or that process special categories of personal data on a large scale. Even when the GDPR does not specifically require the appointment of a DPO, organisations may sometimes find it useful to designate a DPO on a voluntary basis.

Further guidance on the mandatory designation of a DPO can be found in the European Data Protection Board's "Guidelines on Data Protection Officers"[11].

It is the responsibility of each project partner involved in data processing operations to decide to designate a DPO or not. Each project partner is committed to communicate to NTUA the contact details of the project partner's DPO and a confirmation that the contact details of the DPO are made available to all data subjects involved in the research. For host institutions not required to appoint a DPO under the GDPR a detailed data protection policy for the project must be submitted.

[11] EDPB, Guidelines on Data Protection Officers ('DPOs'), as last Revised and Adopted on 5 April 2017. http://ec.europa.eu/newsroom/document.cfm?doc_id=44100

4 Information sheet and informed consent form

4.1 Scope and relation with D11.1 and D11.2

NTUA is the lead partner responsible for Deliverable D11.1 entitled "H - Requirement No. 1", which is due on M6. This deliverable must contain "the procedures and criteria that will be used to identify/recruit research participants […]. More detailed informed consent/assent procedures for the participation of humans in all the research activities that will be implemented in the project must be submitted. Templates of the informed consent/assent forms and information sheets covering the voluntary participation (humans) and data protection issues (in language and terms intelligible to the participants) must be submitted. Details on incidental findings policy must be submitted".

In addition, NTUA is also the lead partner responsible for Deliverable D11.2 entitles "H - Requirement No. 2", which is due on M6. In that deliverable "the applicant must clarify whether children unable to give informed consent will be involved (e.g. to test the proposed first aid for children devices) and, if so, details on how the consent of the legal representatives (and assent, when applicable) will be acquired must be submitted".

Hence, D11.2 and D11.2 must contain detailed information and informed consent templates for the purpose of informing and involving participants in the following research and data collection activities:

- Questionnaires, interviews, workshops and focus groups;
- Pilot trials and live demonstrations.

Consequently, in this Ethical Protocol, the included information and informed consent templates may only be used for the purpose of informing and involving participants in the following research and data collection activities:

- Inclusion in the S&R's mailing list to receive notices about the project and related events;
- Consent for the processing of personal data for the purpose of receiving the S&R mailing list and for participation to S&R events such as conferences, meetings and seminars.

For these processing activities, according to the Grant Agreement, the data controller is NTUA acting as coordinator.

4.2 Information sheet template

About this information sheet

This information sheet generally explains how the Search & Rescue (S&R) consortium processes personal data of individuals who are interested in receiving communications about research conducted by us. If you accepted to be included in S&R's mailing list or expressed an interest in taking part in a project's conference, meeting or seminar or agreed to do so, relevant communications will be made available to you. If you are interested or agreed to participate in questionnaires, interviews, workshops, focus groups, pilot trials and live demonstrations, you will be provided with more specific information (for example in a participant information sheet) which is supplemented by this notice; the specific information will take precedence should there be any contradiction between these.

About Search & Rescue

The Search & Rescue (S&R) project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 882897. Its goal is to establish an efficient

synchronisation framework managing the data, developed services and information flow between the different authorities involved in emergency management operations and the crisis managers (Rescue forces, Police, Fire-department, etc.). Adhoc web portals and additions to stakeholders' systems and back-offices will provide a common, uniform and ubiquitous platform for collecting, analysing and sharing real time data from the sensors, drones and rescue robots for supporting management decisions. Federated security will enable access by different stakeholders to services provided by different stakeholders.

Purpose of S&R's mailing list

The purpose of the Search & Rescue's mailing list is to provide its users with general information about the project outcomes and events such as conferences, meetings or seminars. The lawful basis of processing is Article 6, 1, a) of the General Data Protection Regulation.

Personal data being processed

For the purposes of distributing the S&R's mailing list, the following categories of personal data are being processed:

- Name
- First Name
- E-mail address
- Title and Occupation (or company)
- Confirmation that the user is at least 18 years old

Data controller

The data controller responsible for this processing of personal data is the National Technical University of Athens - NTUA (NTUA), established in 9, Heroon Polytechniou Str., 157 80 Zografou, Greece (Zografou Campus).

Data protection officer

For more information or complaints, the contact details of the data protection officer are

Dr. Christos Ntanos

Zografou Campus

9, Heroon Polytechniou Str.

157 80 Zografou

+30 210 772 2085

cntanos@epu.ntua.gr

Recipients

Exclusively for dissemination purposes or for the organisation of research activities carried out in the context of the S&R project (such as questionnaires, interviews, workshops, focus groups, pilot trials and live demonstrations), the collected personal data may be transferred to partners of the S&R Consortium. These are AIDEAS OU, SOFTWARE IMAGINATION & VISION SRL (SIMAVI), MAGGIOLI SPA (MAG), KONNEKT ABLE TECHNOLOGIES LIMITED (KT), THALES ITALIA SPA (THALIT), ATOS IT SOLUTIONS AND SERVICES IBERIA SL (ATOS), ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS (CERTH), UNIVERSITA DEGLI STUDI DI CAGLIARI (UNICA), UKEMED (GLOBAL) LTD (UGL), PUBLIC SAFETY COMMUNICATION EUROPE

FORUM AISBL (PSCE), UNIVERSITA DEGLI STUDI DI FIRENZE (UNIFI), DEUTSCHES FORSCHUNGSZENTRUM FUR KUNSTLICHE INTELLIGENZ GMBH (DFKI), UNIVERSITA CATTOLICA DEL SACRO CUORE (UCSC), VRIJE UNIVERSITEIT BRUSSEL (VUB), SYNYO GmbH (SYNYO), UNIVERSITEIT HASSELT (UHASSELT), SPOLECZNA AKADEMIA NAUK (SAN), GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON, PLIROFORIKIS ETAIREIA PERIORISMENIS EFTHYNIS (UBITECH), ELLINIKI OMADA DIASOSIS SOMATEIO (HRT), ENOSI PTYCHIOYCHON AXIOMATIKON YPAXIOMATIKON PYROSVESTIR OY SOMATEIO (EPAYPS), JOHANNITER-UNFALL-HILFE EV (JOHANNITER), CONSIGLIO NAZIONALE DELLE RICERCHE (CNR), POMPIERS DE L'URGENCE INTERNATIONALE (PUI FRA01), ASOCIATA CLUSTERUL ROMAN PENTRU PROTECTIE SI ECOLOGIE IN DOMENIUL MATERIALELOR CHIMICE, BIOLOGICE, RADIOLOGICE/NUCLEARE SI EXPLOZIVE (PROECO), SERVICIO MADRILENO DE SALUD (SERMAS), ESCUELA ESPANOLA DE SALVAMENTO Y DETECCION CON PERROS (ESDP).

Transfer to third countries

No personal data will be transferred to any recipients outside the territory of the EU and the EEA.

Retention period

The collected personal data will be retained up to 6 months after the end of the project.

Your rights

- You have the right to withdraw your consent
- You have the right to access information we hold about you
- You have the right to make us correct any inaccurate personal data about you
- You have the right to restriction of processing
- You have the right to port your data to another service
- You have the right to be 'forgotten' by us
- You have the right to lodge a complaint regarding our use of your data. This can be done by contacting the NTUA's data protection officer or the Hellenic Data Protection Authority**.**

4.3 Informed consent form template

About this consent form

After having read the above information sheet, this consent form needs to be filled by any individual willing to be included in the S&R's mailing list.

Consent information

By sending this form and clicking the button "I AGREE", I, as the Data Subject, hereby consent to the processing of my below given personal data I hereby voluntarily provide to NTUA. I acknowledge that the Personal Data which relate to my person represent the so called personal data within the meaning of the Regulation 2016/679 of the European Parliament and the Council (EU) of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement on such data and repealing Directive 95/46/EC ("GDPR"). At the same time I declare that I am at least 18 years old.

Consent form

For the purposes of receiving e-mails from NTUA about the S&R project's outcomes and events, NTUA need the following personal data:

- **Name and first name:** Cliquez ou appuyez ici pour entrer du texte.
- **E-mail address:** Cliquez ou appuyez ici pour entrer du texte.
- **Title and Occupation (or company)**Cliquez ou appuyez ici pour entrer du texte.
- **I confirm that I am at least 18 years old ☐**
- **I confirm that I have carefully read the S&R information sheet ☐**

I agree ☐

5 Establishment of the Ethical Board

Due to the number of the ethics issues raised by the S&R research project, the Grant Agreement provides that « an Ethics Board must be established which includes relevant independent expertise to monitor the ethics issues in this project and how they are handled. The Board must be consulted at least on the ethics issues raised in the ethics screening report ». According to the Grant Agreement, the composition of the board and a brief description of its responsibilities must be submitted in the context of Deliverable D11.7 entitled « D11.7: GEN - Requirement No. 7 » which is due at M9 and for which VUB is the lead responsible partner.

By consequence, the scope of this Section is limited to define the mission statement of the Ethical Board, to provide guidelines ensuring its independent composition on M9 and to define its activity domains.

5.1 Mission Statement of the Ethical Board

Experience from EC projects shows that ethical principles are quite difficult to implement within the confines of a research project since the partners and stakeholders (engineers, industrials, social and legal scientists) are committed to making the project a success. This means that sometimes ethical issues which have to be discussed in the project have difficulties to emerge because of the time pressure of the project agenda. Moreover, the balance of power between the partners is usually not in favour of non-technical issues and considerations.

Therefore, compliance of the project research activities, and hence of the S&R platform and methodology, with ethical standards and guidelines will be further ensured through the establishment of an Ethical Board of experts. The latter will monitor all ethics-related aspects in the S&R project and will consult the project consortium on the potential ethical impacts of the activities undertaken.

The Ethical Board is necessary to ensure independent and critical appraisal of the legal, ethical and societal issues arising from the activities of the project, especially as the project aims to process a considerable amount of personal data, as well as develop novel technologies for first responders. Such work cannot be understated given the importance of the issues and potential impact on the development of the final solution.

5.2 Composition and independence of the Ethical Board

The role of the Ethical Board is to independently, ethically and legally monitor the activities and outputs of the project. For this reason, the experts of the Ethical Board must have proven expertise in law or ethics and may not be attached to any political group or government neither be in a position by which a conflict of interest may arise.

The independence of the Ethical Board (EB) is a major condition for the success of the ethical governance of the project and for the legitimacy that is intended to be built into the S&R project. Therefore, by accepting their missions, EB members declare that they have no conflict of interest at the time of appointment and that they undertake to inform the Consortium if any conflict of interest should arise in the course of providing their opinion or carrying out their duties.

The Ethical Board will be composed of two categories of members:

- "Internal members": members which are part of a project partner's organisation, but which are not directly employed in the S&R project, as their consultancy falls under the indirect costs. An

additional independency safeguard is that these internal members will not be asked to produce any kind of project output (i.e. a deliverable).

- "External members": members which are not part of any project partner's organisation and which are accepting to cooperate without any remuneration.

The Ethical Board will be composed of 4 internal members and 2 external members. These members will be designated on the basis of proven expertise in the fields of law or ethics.

Each project partner is committed to communicate, at the latest on M7, the names and contact details of potential internal and external candidates of the Ethical Board. These candidates will be proposed to the General Assembly which will decide on the final composition of the Ethical Board to be included in Deliverable D11.7 entitled « D11.7 : GEN - Requirement No. 7 » which is due at M9.

All EB members will be bound by a Non-Disclosure Agreement which will be signed by them.

5.3 Activities of the Ethical Board

The Ethical Board will independently and critically appraise the activities of the project undertaken in its lifetime, as well as the foreseen use of the system in an operational context after the life of the project.

The members of the Ethical Board may raise any ethical or legal issue related to the S&R project and must be consulted at least on the ethics issues raised in the ethics screening report. These ethical issues are the following:

- Involvement of human beings in the research project, including in pilots and trials;
- Involvement of animals in pilots/trials;
- Protection of personal data, including sensitive data and further processing of previously collected personal data (secondary use);
- Environmental protection and safety, including health and safety measures for the researchers and research participants when testing technologies. This issue also consists in verifying that partners obtained the necessary authorisations for the flying of UAVs;
- Dual-use and misuse risks, including the verification that partners obtained the necessary export licences and authorisations.

In addition, a supplementary ethical issue could be the respect of principles outlined in the "Ethics Guidelines for Trustworthy Artificial Intelligence" should the S&R project consider AI supported operational infrastructure. The development of such infrastructure must be guided, amongst others, by adherence to the ethical principles of respect for human autonomy, prevention of harm, fairness and explicability.

It is planned that the Ethical Board will have at least 2 main remote meetings together (i.e. teleconference). However, members of the Ethical Board are free to organise supplementary meetings in accordance with their own agenda (ad hoc meetings or task/issue specific meetings on a need to do basis).

The Ethical Board's activities and output will be included in the following Deliverables:

- Deliverable D11.8 entitled « GEN - Requirement No.8 », which is due on M12;
- Deliverable D11.9 entitled « GEN - Requirement No. 9 » which is due on M24.

Annex I: Template for personal data processing activities

Partner & Processing's ID	Role of partner	Purpose	Lawful basis	Categories of data	Data subjects	Source	Recipients	Transfers to thirds countries	Storage limitation	Anonymisation & pseudonymisation techniques	Security measures	List of rights & derogations