

Ethics in Catastrophes, extraordinary decisions

Ana María Aldea Reyes

Spanish School of Rescue and Detection with
Dogs (ESDP)
esdp.eu@escuelasalvamento.org

Marta Burgos González

Spanish School of Rescue and Detection with
Dogs (ESDP)
m.burgos@escuelasalvamento.org

Susana Izquierdo Funcia

Spanish School of Rescue and Detection with
Dogs (ESDP)
s.izquierdo@escuelasalvamento.org

ABSTRACT

European research projects take ethical aspects into central consideration. In this extended abstract we have developed the methodology of the Search and Rescue (SnR) project and research made in relation to the ethical aspects of animal welfare.

Keywords

Ethics, research, European projects, Ethics Board.

INTRODUCTION

Search and Rescue Project (SnR) is a three-year project funded by H2020 under grant agreement number 882897, which aims to develop new technologies to increase the efficiency and safety of first responders during search, rescue and health care of victims.

The SnR consortium is comprised by twenty-eight (28) partners from twelve (12) European countries. The project's involved stakeholders and end-users bring together high expertise and innovation capabilities from various practitioner's organisations, civil society, universities and research centers, as well as industry organisations and SMEs.

The SnR project will design, implement and test through a series of large scale pilot scenarios a highly interoperable, modular open architecture platform for first responders' capitalising on expertise and technological infrastructure from both COncORDE and IMPRESS FP7 projects. The governance model of S&R will be designed to operate more effectively and its architectural structure will allow to easily incorporate next generation R&D and COTS solutions which will be possibly adopted in the future disaster management systems. The Model will also support a unified vision of the EU role and will provide a common framework to assess needs and integrate responses.

From the beginning of the SnR project, the needs of the first responders as end users have been taken into consideration through different qualitative and quantitative research tools (workshops, interviews and questionnaires). Experts in emergency, search and rescue together with technology developers are working to create innovative technologies that increase responder safety and reduce the rescue time associated with acting in various types of emergencies in complex response environments.

One of the most important phases of the project will be to implement and evaluate the overall approach of the SnR platform and to define validation activities, in order to assure validity of results based on the scientific and technical objectives. A series of tests will be designed and executed to monitor progress and validate the methodologies and technologies developed by SnR. The tests will be based on real life scenarios and case studies based on seven complex. SnR domain-specific use cases will be:

- UC1: Victims trapped under rubble (Italy)
- UC2: Plane crash, mountain rescue, non-urban (Greece)
- UC3: Earthquake / heavy storms between Vienna Rail Station & Kufstein railway station heavy damages in the rail station (Cross-border pilot, Austria-Germany)
- UC4: Forest fire expanded and threat to industrial zone (Attica Region, Greece)
- UC5: Victims trapped under rubbles (France)
- UC6: Resilience Support for Critical Infrastructures through Standardised Training on CBRN (Romania)
- UC7: Chemical substances spill (Spain).



The following course of action will be pursued:

- Implementation guidelines and pilots' management.
- Evaluation instruments to be adapted according to all actors' profiles.
- Value sensitive evaluations, including end-user ethnographic observations and interviewing.
- Evaluation procedures: planning and coordination of the filling-in process, analysis methodology according to planned objectives and outcomes. The following are specific WP8 objectives:
- To setup the pilot environment considering all the special requirements / needs of the end users and stakeholders
- To fully operate and test the S&R solution on specific piloting experiments.

- To validate the S&R Platform from a usability and end-user point of view.
- To make the capabilities of the S&R Platform available to policy stakeholders willing to use S&R's technologies.

SnR does not only faces the challenge of making rescue systems more effective, but must also meet ethical requirements for all EU-funded research activities.

According to the EC, "ethical conduct of research involves the application of fundamental ethical principles and legislation to scientific research in all possible areas of study". Implicit in this, it is the compliance with the ethical principles included in the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocol.

METHODOLOGY

Under SnR Project, an Ethics Board has been created. This Ethics Board will oversee all ethics-related aspects of the SnR project and consult with the project consortium on the potential ethical impacts of the activities undertaken.

"Ethics protocol" is to identify and describe the procedures and methodology to ensure that the SnR Project research activities will:

- Provide ethical guidelines to ensure that project partners comply with ethical requirements imposed by the Grant Agreement.
- Ensure that the processing of all data, both personal and research data, complies with the General Data Protection Regulation (GDPR) and its implementing national laws.
- Provide an informed consent to the project partners of each procedure carried out, not only for their knowledge, but also for third parties involved in events and/or simulations that take place during the development of the project.
- Establish an Ethics Board of experts, which will oversee all ethics-related aspects of the SnR project.

The Ethics Board work will consist of:

- Consulting the project consortium on the potential ethical impacts of the activities carried out during the project life cycle.
- Resolving various ethical considerations that arise during the project.
- Ensuring good practice in terms of ethical values, responsibility and integrity.

The principles of proportionality, the right to privacy, the right to protection of personal data, non-discrimination, respect for the principle of justice and animal protection are considered mandatory.

RESULTS

The SnR Ethics Board aims to find solutions that go beyond disaster relief.

- Adherence of all Consortium members to the ethical principles of H2020 projects.
- Development of procedures to protect privacy and data protection.
- Development of information sheets on procedures to be carried out and informed consent.
- Establishment of an Ethics Committee to oversee all aspects of SnR technology development.

Under this framework, the Spanish School of Rescue and Detection with Dogs (ESDP) has drawn up a code of ethics which reflects the principles of our organisation, focusing on the animal welfare of our search and rescue dogs, as well as all the implications that have to do with the development and testing of technologies.

The Ethical Code aimed at volunteers and professionals working in the organization and developed by the ESDP takes as starting point the “five freedoms” considered by the World Organization for Animal Health. These freedoms are (1) freedom from hunger and thirst, (2) freedom from discomfort, (3) freedom from pain, injury and disease, (4) freedom to express normal behavior, (5) freedom from fear and distress

Regarding the (1) freedom and thirst the following considerations should be followed:

- Both the dog handler and the other members of the team are responsible for providing the rescue dogs with adequate food (quantity and composition) for the work they do, their species and their size, thus ensuring their health and performance.
- They must have access to clean, drinkable water whenever they need it.
- When, due to the needs of the mission to which we are assigned, the dog must remain in a transport cage for a prolonged period of time, it shall be ensured that they have access to water and, if necessary, sufficient food for the entire journey.
- Avoid fear and distress.

Regarding (2) freedom from discomfort the following consideration should be followed.

- The facilities in which the dog is kept must be clean, protected from inclement weather and have dimensions in accordance with the size and periods of confinement of the dog.
- The transport cages must comply with safety regulations in terms of dimensions, ventilation, materials and structure to guarantee adequate protection for the animal.
- On long journeys, it shall be ensured that the animal is given sufficient time to walk and relieve itself before, during and after the journey.
- It is advisable to have a veterinarian on hand, especially in the case of real missions, where there may be situations of risk for the animal.
- It is an added value the training of its dog handlers in basic veterinary knowledge of dog care, so they can act in case of emergencies and accidents. Likewise, it will have revised and updated sanitary material for use both in regular training and during missions.
- In the context of research projects it should be taken into account:
 - Whenever a technology designed for working dogs is tested, the potential risks to the animal, direct or indirect, will be analyzed beforehand.
 - The dog shall not be exposed to any unnecessary risk, which could seriously endanger its physical integrity or well-being.
 - If, for research purposes, a dog has to be trained to develop a specific function within the project, the organization will guarantee that the dog will be brought back to useful life and/or a home will be found for it at the end of the research project.
- It is essential to respect the working/rest times of the animal, not only to guarantee the good performance of its work, but also to respond to its physiological and psychological needs.

In relation to (3) freedom from pain, injury and disease the following consideration should be followed:

- The dog's international vaccination record must be kept up to date, as well as any other necessary legal documentation. This is a prerequisite for the dog to be considered as an operational member of the group.

- Before, during and after each work, the dog shall be examined to ensure that it is in perfect health. If the dog suffers any injury or wound that significantly alters its state of well-being, it shall be declared as "non-operational", either temporarily or absolutely, according to the decision of the vet.
- The sick animal shall be monitored (treatment, administration of medication, visits to the vet and any necessary treatment) until it recovers.
- Any dog that has suffered injuries that cause pain or suffering in the performance of its duties, shall be temporarily or permanently removed from the service, according to the medical diagnosis.

Regarding (4) freedom to express normal behavior, the following considerations should be followed:

- Dogs are considered to be cognitive animals, capable of basic conscious responses, and emotionally empathetic.
- Working dogs, undergoing training and employed in useful work, should not be deprived of the opportunity to express those behaviours that are unique to them as a species.
- One of our priorities is to ensure that training techniques and programmes include aspects of animal welfare related to the time dedicated to recreation and social interaction, in order to maintain and emotional balance.

Finally, regarding the (5) freedom from fear and distress the following consideration must be followed:

- The nature of rescue dogs' work can subject them to highly stressful situations related to transport and working scenarios. It will be a fundamental part of the work of dog handlers to prepare their dogs, through experience, to become accustomed to and normalize those situations in order to minimize the distress.
- Dog handlers should avoid subjecting dogs to unnecessary risk during training and intervention, always choosing alternative manoeuvres that are less physically and/or emotionally damaging to the dog.
- Training techniques used will always be aimed at avoiding physical and/or emotional violence to the dogs, limiting the pressure they receive during training.



CONCLUSIONS

SnR project aims to provide technological solutions that suit the first responders' needs. From this perspective, challenges of the K9 units have been highlighted from the beginning of the project and will be taken into consideration by developers, being the ethical aspects in the research a key point under the project.

The results will be validated in the pilots, also by the K9 teams. One of the most expected impacts is the development of technological tools that will allow the reduction of response times and save a greater number of lives, in an effective and efficient way considering ethical principles around all the process.

REFERENCES

Alarcón M, Evelyn C. Evaluación integral de bienestar en cánidos y personal perteneciente a la Unidad Canina Metropolitana de Apoyo a la Comunidad. Tesis doctoral. Universidad de Quito.2020.
Available at: <http://dspace.udla.edu.ec/handle/33000/12047>. Accessed at february 2021.

Aranguren Gonzalo, L.A., Ética en común, Plataforma del Voluntariado de España, 2002.

Balcombe J, Barnard N, Sandusky C. Laboratory routines cause animal stress. Contemporary Topics in Laboratory Animal Science Nov. 2004;43(6):42-51.

Available at: http://www.animalexperimentfacts.info/studies/laboratory_animal_welfare_stress_balcombe_et_al_2004.htm. Accessed at January 2021.

Bermejo, F., Ética del trabajo social, Desclée De Brouwer, Madrid, 2002;

Bermejo, J.C. y Belda, R., Bioética y acción social, Sal Terrae, Santander, 2006;

Singer, P., Liberación animal, Universidad de Princeton Singer, 2011

Código Ético de la Plataforma del Tercer Sector. Available at http://www.plataformatercersector.es/sites/default/files/1444032939_recomendacioneseticasdeltsas.pdf Accessed January 2021

IATA. Regulación de animales vivos. 8.3. Requisitos aplicables a los contenedores 46ª edición de enero de 2020. Available at : https://www.iata.org/contentassets/b0016da92c86449f850fe9560827bbea/pet-container-requirements_1_46e_es.pdf. Accessed february 2021

Ley 4/2016, de 22 de julio, de Protección de los Animales de Compañía de la Comunidad de Madrid.

Available at: <https://www.boe.es/buscar/pdf/2016/BOE-A-2016-11097-consolidado.pdf>. Accessed February 2021

UNESCO. Declaración universal sobre Bioética y Derechos Humanos.19 de octubre de 2005.

Available at:

http://portal.unesco.org/es/ev.php-RL_ID=31058&URL_DO=DO_TOPIC&URL_SECTION=201.html. Accessed January 2021.

<https://search-and-rescue.eu/>

<https://cordis.europa.eu/project/id/607814>

<https://cordis.europa.eu/project/id/608078>