eNOTICE
European Network Of CBRN TraIning Centres

D4.4 eNOTICE Joint activities planning

Report 3

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6	University of Paderborn (UPB)	
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11	War Studies University, CBRN Defence Training Centre (WSU)	
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Executive Summary

This document is the third progress report on the organisation of eNOTICE Joint Activities (JA).

It includes the full report on the Joint Activities organised in Rome (IT), by UNITOV, in October 2018; in Vyskov (CZ), by JCBRND COE, in February 2019; and in Gurcy (FR), by SDISS77 and ARMINES, in May 2019. The Joint Activity in Birmingham (UK), by WMP, in July 2019 will be included in the next report, due August 2020.

These JAs are considered as a core instrument to achieve the eNOTICE objectives, which are to build a bridge between different public safety and security stakeholders and to learn from these gatherings to build a sustainable network of CBRN Training Centres (TC).

They are meant to collect information in order to achieve a better understanding of the needs and expectations of different stakeholders and to explore the possible added value of different kinds of exercises (field, table top, simulations and serious gaming) as a favourable setting to bring these stakeholders together. Therefore, a lot of attention is given to the 'joint' character of these activities and to the preparation of a structured debriefing and evaluation in order to collect as much valuable input as possible.

The 'joint' character is achieved through the participation of ongoing EU research projects, attending the exercise for observation, testing, validation or demonstration.

In Rome the EU projects TARGET, FIRE-IN, SAYSO, MELODY and NO FEAR joined the exercise. Projects representatives attended this JA as external observers.

The Joint aspect of the Activity hosted by the CBRN Defence COE in Vyskov, consisted of the participation of eNOTICE in the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course: some experts from eNOTICE partners attended the 5 day course and others participated in day 4, as observers to the practical training.

The Joint Activity organised in Gurcy (FR) consisted of a joint effort of SDIS77 and ARMINES, both eNOTICE partners. The JA consisted of two main parts: the CBRN multidisciplinary full-scale exercise, hosted by SDIS77; and the virtual deployment of a Mobile Field Hospital, hosted by ARMINES.

Moreover, the H2020 CBRN Cluster part b project TERRIFFIC joined the field exercise for testing; the Serious Game hospital deployment was organised as the validation phase of the French national project HOPICAMP. They took advantage of the scenario of the field exercise which ran in parallel.

The main lesson identified and recommendations from the three last Joint Activities can be summarized as follows:

The Joint Activity in Rome was built on the basis of two training activities of the Joint CBRN defence School of Rieti, the Joint activity made it possible to show the school's facilities and capabilities to project partners and external observers. Once the context has been created, in order to develop the future activities of the network, it is essential to maximize all the opportunities, formal (meetings and workshops) and informal (coffee breaks, social events, etc.), of exchange and interaction between all the key actors, were very useful to gather information and useful indications.

The Joint Activity in Vyškov showed the first time a combination of a regular course at the NATO JCBRN Defence COE with an eNOTICE JA. The JA in Vyškov has been planned, prepared and executed in close coordination with the eNOTICE Coordinator and Technical Coordinator. The planning-, preparation- and execution phases ran smoothly without any significant problems. Ergo,

no significant lesson has been identified towards the JA planning-, preparation- and execution-phase from the Host Organization (HO) logistic perspective.

From the eNOTICE perspective the main challenges were as follows:

- The eNOTICE observers' roles were not sufficiently lucid. As a consequence, during the practical day open for participation of eNOTICE observers, they had received limited directions about the observation aims and means;

- The large numbers of observers on site -with no clear role- made the joint part of the exercise itself hard to control.

Recommendations for the next JA iterations.

The observations are collected for the eNOTICE purposes. Thus the eNOTICE management should identify the observation aims and in close collaboration with the JA HO preparing respective check lists. The JA HO is to draft the Observation / Evaluation Plan identifying concrete observation manners, times and places.

The total numbers of observers should be limited or the observers divided into groups up to 5 observers. The particular observers groups should be guided by the JA HO representative.

It also might be convenient to mark the eNOTICE observers by any noticeable badge, vest etc.

In this concrete JA in Vyskov internal and external evaluation were executed IAW NATO Quality Assurance standard, but this is aimed only on the I-RAPTER course itself.

The Joint Activity in Gurcy showed the capability of the CBRN TC to host a large-scale field training exercise, in parallel with a serious game training session (HOPICAMP).

Moreover, SDIS77 was able to use some of the recommendations and lessons learnt issued after the Vyskov and Rieti JAs; thus, some of the challenges identified beforehand could be addressed:

- visibility of the eNOTICE observers;

- role of the eNOTICE observers during the JA;

- presence of a liaison team between eNOTICE observers and players / exercise director;

On the other hand, the connexion between the JA and the TERRIFFIC project was not deemed as highly relevant by the eNOTICE observers, because of the lack of coordination between the exercise director of the field training exercise and the TERRIFIC project team.

Moreover, the presence of high-ranking political authorities during the JA interfered with the schedule, thus preventing the eNOTICE observers from attending the whole exercise.

Transversal lessons to be drawn so far can be summarised as following:

- A briefing for observers is needed to make the role of these observers clear. In this briefing all safety, logistical, etc. issues should be addressed.

- The total numbers of observers should be limited or observers divided into groups up to 5 observers per HO representative.

- The interference of external authorities should be limited for the observers.

These lessons will be taken into account for the preparation and organisation of the following eNOTICE Joint Activities.

Tables and figures

Definitions

CBRN Training Centre - eNOTICE uses the following instrumental definition of CBRN Training Centres:

CBRN Training Centres
A CBRN Training Centre is a civil or military organisation that provides education and training in the field of public safety and security. The Training Centre can be monodisciplinary, such as firefighting, medical, police or military academy and/or multidisciplinary, including incident/emergency/disaster management. Education and training covers the thematic areas Chemical, Biological, Radiological and Nuclear.

eNOTICE focus
The eNOTICE project focuses on those Training Centres with a CBRN thematic capacity and corresponding infrastructure to organise exercises for first responders or civil protection practitioners such as demonstrations, tests, table tops, field exercises, simulations and serious gaming.

eNOTICE ambition
One of the ambitions of the eNOTICE project is to promote these Training Centres as a facilitator for Innovation, Research and Development through their exercises which can be joined for the purpose of observation to obtain a better understanding of end user needs and requirements, for technical testing, technical and scientific validation and demonstration to a broad audience.

eNOTICE rationale
The combination of the Training Centres' network of practitioners, their available infrastructure and their annual program of practical training and exercises provides for unique opportunities for R&D solution providers to observe and participate in real case scenarios, to engage structural collaboration with practitioners and end users and to strengthen mutual understanding

Nomenclature

CBRN	Chemical, Biological, Radiological, Nuclear
eNOTICE	European Network of CBRN Training Centres
EOD	Explosive Ordnance Disposal
HAZMAT	Hazardous Materials
IED	Improvised Explosive Devise
I-RAPTOR	International Radiological Assistance Program Training for Emergency Response
JA	Joint Activity
NATO	North Atlantic Treaty Organization
TC	Training Centre
TIM	Toxic Industrial Material
Observation	An observation is a short description of an issue which may be improved.
Lesson	A lesson is the generic word for a lesson identified and/or a lesson learned.
Lesson Identified	A LI is the output of the analysis phase.
Lessons Learned	A lesson identified which remedial action has been approved and already implemented.

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1 Introduction

1.1 Overall objectives of eNOTICE and scope of WP4

The objective of the eNOTICE project – European Network of CBRN Training Centres – is to build a dynamic, functional and sustainable European network of CBRN Training Centres, testing and demonstration sites (CBRN TC), aiming at enhanced capacity building in training and users-driven innovation and research, based on well-identified needs.

eNOTICE seeks to improve European preparedness, resilience and incident response to CBRN attacks and emerging threats through close multi- (stakeholders) and single-discipline (practitioners) interactions. Considering the variety of disciplines involved in managing CBRN risks, collaboration has always been quite challenging. CBRN TC can act as the perfect operational intermediary between all civilian and military CBRN actors, EU relevant bodies and policy-makers, and thus serve as the best cradle for expansion of a CBRN network of professionals.

To set up such a network that is both efficient and effective in meeting the needs of different security actors, several lines of action will be followed within the five-year timeframe of eNOTICE in order to develop a network that will be viable, attractive as well as sustainable. The work programme (SEC-21-GM-2016-2017 – Pan European Networks of practitioners and other actors in the field of security[1]) proposes three lines of actions: 1) establish and maintain a roster of capabilities and facilities, 2) organise the best way to share expertise, and 3) plan to pool and share resources with a view to optimise investments. These lines will serve as a baseline for the project (Figure 1) and will be achieved through a mix of activities.

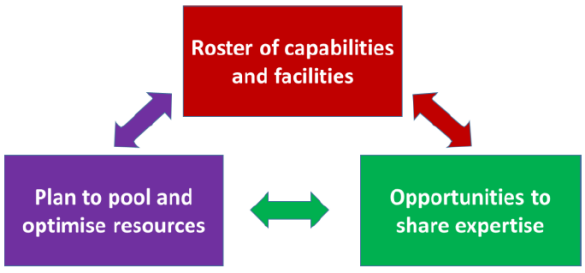


Figure 1 Three lines of actions

One of the key activities within eNOTICE is the organisation of Joint Activities, which is the main scope of WP4.

[1] European Commission Decision C (2017) 2468 of 24 April 2017, Horizon 2020 Work Programme 2016-2017, 14. Secure Societies - Protecting freedom and security of Europe and its citizens

The objectives of WP4 are defined in the DoA as followed:

> WP4 aims at transforming the WP3 information and communication network into a transactional network, based on sharing of expertise and effective practices and collaboration through the organisation of joint activities between the eNOTICE consortium partners and external partners. WP4 will also identify and encourage opportunities to optimise investments through pooling of resources, and liaise with other networks and policy makers to avoid duplications and to create synergies to align policies and optimise efforts.

Joint Activities can be defined as exercises for first responders or civil protection practitioners organised by CBRN TCs as part of their regular educational or training activities, opened up to external stakeholders, which allows for the activity to be combined with tests, validations or demonstrations.

The eNOTICE Joint Activities can be seen as showcases to demonstrate the role, contribution and added value of the TCs *beyond* their traditional activities, in terms of user driven R&D, enhanced preparedness, improved training capacity and a community build-up.

During the project, all eNOTICE consortium partners organise such activities in which they open up their core activities such as multidisciplinary field exercises, table top exercises, trainings, serious gaming and simulations to external partners, such as, EU R&D projects, industry, policy makers and other practitioners. These realistic settings of real situations provide unique opportunities for the identification and development of user-driven technological solutions, e.g. through the identification of genuine user's needs, technical testing, validations, demonstrations, focus groups, etc.

Lesson identified from these Joint Activities result in recommendations to improve their organisation and output, for optimised resource allocation and for enhanced collaboration, both at operational and strategic (policy) levels.

1.2 Objectives and scope of Task 4.2

Task 4.2 – "*Organisation of joint activities (exercises combined with tests, validations or demonstrations)"* is responsible for the organisation of these eNOTICE key activities, which are the Joint Activities, organised during the whole duration of the project.

The current Deliverable D4.4 – eNOTICE Joint activities planning (Report 3) includes the full reports on the JA organised by UNITOV, in Rome (IT), October 2018 (Annex 1); by JCBRND COE, in Vyskov (CZ), in February 2019 (Annex 2) and by SDIS77 and ARMINES, in Gurcy (FR), in May 2019 (Annex 3).

For the reporting on these JAs, the format of the D4.1 "Templates for the preparation, organisation

and evaluation of Joint Activities" is used (eNOTICE D4.1, February 2018). An evaluation of the use of these templates for the preparation of the Rome JA is included in section 6.1. This feedback will be used in Task 5.3 for the continuous improvement of the Templates. The adjusted planning for the future Joint Activities is included in Section 5.

A clarification on the context and objectives of the eNOTICE JAs and a full description of the methodological approach can be found in the first report (D4.2, February 2018).

2 Report on the Rome Joint Activity

The full report of the Rome Joint Activity, based on the T4.1 Guidance and Templates, is included in Annex 1, a summary presentation and lesson identified is to be found in the following paragraphs.

2.1 Overall presentation of the Rome-Rieti Joint Activity

The Rome-Rieti JA was an operation-based/full scale/field exercise based on the participation of different specialists of national assets and multinational CBRN Operational Sampling Teams. The different proposed scenarios were adopted in relation to a possible response for a situation caused by incidental/accidental release, intentional release and/or natural outbreak. The scenario for the exercise focussed exclusively on Bio-threats.
The CBRN Operational Sampling Course aims to train CBRN Specialists in CBR survey and sampling activities as well as procedures. In addition to the course, there was a demonstration based on national CBRN-EOD capabilities in case of a combination of events. The course is addressed to give the students real capability and skills to successfully perform survey and sampling in a contaminated environment by unknown CBR agents and TIMs (Toxic Industrial Material). They should be able to assess the risk and to ensure timely warning and reporting measures.

The Joint Activity consisted of the practical part of a CBRN Operational Sampling Course, which was observed by eNOTICE consortium partners, together with representatives from the Italian Fire and Rescue Service, GORE, CATTOLICA University, EASS EC, SCK-CEN, Italian Institute of International Affairs, Hoseo University, Public Health England, Italian Civil Protection and the War Studies University in Poland.
Representatives from the following EU research and networking projects attended the field exercise as observers: TARGET, FIRE-IN, SAYSO, MELODY and NO-FEAR to observe the exercise.

TARGET is a pan-European platform developing the use of Augmented and Virtual Reality (AVR) and serious gaming techniques for the training and competence assessment of Security Critical Agents (SCA), including first responders (police, fire, emergency medical services), counter terrorism units, border guards and critical infrastructure operators.

FIRE-IN seeks to create, improve, animate and develop the first European Fire & Rescue Network, delivering solutions for safer European societies. It aims at improving the Fire & Rescue services capabilities, developing process by fostering innovation, promoting cutting edge solutions to recognise operational needs

SAYSO's mission is to define the reference architecture and specifications for future innovative European cost-effective and user- friendly situational awareness tools that fulfil end-user requirements and can be used across different organizations, hierarchical levels and national borders. The future development of SAYSO-compliant Situational Awareness Systems for Multiple Stakeholders will allow Civil Protection practitioners to (i) share information; (ii) analyse hazards and uncertainties, (iii) obtain a clear picture of the situation at hand with relevant advice.

MELODY will define, develop and deploy a harmonized CBRN training curriculum for first responders and medical staff (ambulance drivers, paramedics and emergency room (ER) personnel).

NO-FEAR is a 5-year Coordination and Support Action project that will bring together a pan-European and beyond network of emergency medical care practitioners, suppliers, decision and policy makers to collaborate and exchange knowledge, good practices, and lessons learned.
Members of the network will have the opportunity to work together and collaborate to develop a common understanding of the innovation potential that fills operational gaps and pinpoint areas for future research. This multi-disciplinary, multi-national, and multi- sectorial collaboration will be supported by virtual tools, including the NO-FEAR platform and networking events (e.g., workshops, demonstrations, exercises) every 6 months.

2.2 Short description of the scenario

The exercise took place in the morning of the 11th October with two interconnected and simultaneous parts: the activities were based on the integration among the "NATO Selected Course CBRN Operational Sampling" and on the integration among CBRN and EOD Teams in case of unconventional use of Improvised Explosive Device (IED).

Different scenarios were proposed in relation to a possible response for a situation caused by incidental/accidental release, intentional release and/or natural outbreak (for Bio only).

For the operational sampling course, different areas of the CBRN Defence Joint School had a dedicated scenario (Chemical, Biological, Radiological), with different specifications in compliance with the directives regarding the Safe Live Agent Training.

Beside of the course there was a demonstration based on national CBRN-EOD capabilities in case of combination of events.

2.3 Rome JA Debriefing and lesson identified

The combined feedback obtained from all participating observers, shared during the hot debriefing as well as the more in depth reflexions based on the eNOTICE Evaluation and Debriefing forms can be summarised as followed:

- The exercise clearly showed the differences between military and civil procedures, used in this type of intervention. Feedback stressed the relevance of harmonisation and standardization at EU level between Military and Civilian agencies.

- It was noted that CBRN – EOD procedures are well standardized at National Level but, in case of Multinational Integration, a lot of gaps are still observed. These gaps can overcome by a close Military-Civilian cooperation.
- The effectiveness of standardized protocols for operational activities indicates that a standardized approach would also be useful for training and exercise. This action would permit to all personnel to adopt the same procedures for a common standard training in this specific sector;

- The participation of observers from ongoing EU projects was considered as a good opportunity for starting projects – like MELODY- to explore the synergies and opportunities for collaboration between different projects. The project annual meeting represented the context to explore these opportunities, hosting representatives of eNOTICE, MELODY, BULLSEYE, INCLUDING and NO-FEAR giving them the opportunity to present their projects and start thinking to cooperate.

- The representatives of UCSC (Università Cattolica del Sacro Cuore) participating as observer to the JA, suggested the idea to improve the network dissemination activities and sustainability through the organization of joint activities piggyback on events and congresses of scientific/technical societies. In this way, the training centre organizing the JA would have the opportunity to show its facilities and capacities to all the congress participants. FDDO suggested to participate to INTERSCHUTZ 2020, (15-20 June, Hannover/Germany), in order to increase the eNOTICE network visibility.

  The GORE representative testified to his interest in being an active part in the organization of future JAs also by providing materials to be tested, an indication that these key players must also be more involved.

2.4 Conclusions on the Rome JA

The results from the Joint Activity, from the NBC School and participants points of view, have given a few points discussion talks that should be developed in the future:

- The CBRN – EOD procedures are well standardized at National Level but, in case of Multinational Integration, a lot of gaps are still in place. For this reason, at this stage, participation to training activities as a "National Team" should be suggested. A NATO standard is required for common procedures that can give the results in accordance with the requirements;

- The opportunity to be trained in the CBRN operational sampling on the field, following NATO standard, is a unique one. If the training is linked to CBRN EOD activities the benefit is highest if addressed to a Team that belong to the same nation/unit than work in a multinational.

3 Report on the Vyskov Joint Activity

The full report of the Vyskov Joint Activity is included in Annex 2, a summary presentation and lesson identified is to be found in the following paragraphs.

As this consortium partner is a military organisation, they have their own NATO-standardized templates for the preparation, organisation, conducting and follow-up for an exercise. Which explains why the eNOTICE templates were not used as a format for the reporting.

3.1 Overall presentation of the Vyskov Joint Activity

The JCBRN Defence Centre of Excellence (COE) hosted the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course.

The I-RAPTER course aim was to provide radiation protection specialists, first responders, law enforcement and emergency managers with practical information to effectively respond to radiological incidents and accidents. The course provided instruction through briefings, equipment demonstrations and field training with the use of a wide variety of radiation detection instrumentation, radiation sources and personal protective equipment. The field practical training was held in the premises of the Radiological Laboratory and at the Vyskov Air Museum. Both venues provided for

an inspiring background for detection and identification procedures and allowed to ensure the safe transport of the discovered radioactive sources.

This Joint Activity had a double purpose: 1) the participation of the eNOTICE experts in the course and 2) the participation of eNOTICE partners as observers on Day 4 of the course, the practical implementation of the theory.

A comprehensive description of the JA including pictures can be found in the eNOTICE Periodic Report.

3.2 Short description of the scenario

After receiving a full set of theoretical lectures and necessary background information, a practical exercise was included in the I-RAPTER course on day 4 (of the 5-days course). The venue of this exercise is at the Air Museum in Vyskov. Mostly older, no longer in use air planes are suspected to have some real radiological sources inside. The task is to find, localise and identify these sources by using properly the mobile detection devices and to – wherever possible – to render safe the material according to the relevant standards.

3.3 Vyskov JA Debriefing and lesson identified

3.3.1 Feedback from the I-RAPTER participants

As the Joint Activity consisted of a full course (I-RAPTER) with the participation of experts from the eNOTICE consortium partners UCL, VESTA, FDDO and WMP, lessons can be learned from their participation in the course. Their feedback can be summarised as follows:

- This course had added value for civil first responders, who were able to train in a military environment, which in normal life they are not able to;
- Due to the fact that the course was given by the United States (US) Department of Energy (DoE), in close cooperation with the US National Nuclear Security Agency (NNSA). The trainees were able to reflect on national practices compared to international (NATO) standards;
- The group of students was very diverse, both by origin and by level of training, which led to interesting interactions and reflections;

- These courses provided by NATO JCBRN Defence COE and US DoE, are an unique opportunity for first responders to follow a course that would not be possible in their home country –mostly- due to financial reasons;

- The practical day of the course was open for participation of eNOTICE observers. They had received a briefing on the design of the practical day's exercise by the US DoE together with the course students but no specific instructions how to act as observers in the exercise. This was sometimes perceived by the students as disturbing;

- The large number of observers on site -with no clear role- made the joint part of the exercise itself hard to control.

3.3.2 Feedback from the eNOTICE observers

eNOTICE partners attended the I-RAPTER course on day 4, to observe the practical training. Their feedback can be summarised as follows:

- Enlarging the 'joint' aspect of a practical exercise to third countries can be interesting in terms of exchanging visions, practices and methods on training, operating methods etc.

- The whole concept of an US organisation providing for this course as a means of reach back, aiming at creating a network of likeminded/like trained professionals, without any specific goal or expectation is rather unusual in Europe. This concept of investing in relations that might one day be interesting or needed is certainly useful to explore further.

- As in previous Joint Activities, it was not easy for the observers to stay focussed during the whole exercise. The different background of the observers and their understanding of the operational procedures makes it difficult to satisfy this mixed group if they do not have a specific mission or agenda. This aspect needs to be better taken care of in future Joint Activities.

- For the organisers of the I-RAPTER course, as well as for the hosting organisation, this type of Joint Activity was new. Most attention went (obviously) to the course participants, there was no real program nor agenda nor briefing for the observers. In order to ensure a real preparation of the participation of observers, eNOTICE partners decided during the debriefing to start elaborating a 'protocol for observers', including all practical aspects to take into account during the preparation phase. VESTA proposed to elaborate a draft, to be tested and evaluated during the Joint Activity in Gurcy, and to be used for future eNOTICE Joint Activities.

3.3.3 Points of improvements

Most of the suggestions for improvement were related to the role of the observers. The observers were challenged mainly due to the fact that they had received only a limited theoretical briefing about the exercise and were not quite clear in what to expect. Because of this limited knowledge about the exercise, they were not focused sufficiently. It was suggested that observers would need clear and specific goals and guidance to ensure more qualitative and effective observations. After the exercise they should attend the practitioners' briefing in order to benefit from a broader feedback session.

The main points of suggested improvement were related to: 1) What can be done to make the observers more visible in the exercise and distinct from the exercise participants 2) how can observers stay focused and more into the exercise instead of wondering off 3) how can observations be improved, in the sense of how can they ensure relevant feedback? 4) the need for some kind of protocol for observers, to be used in every JA and including aspects to better prepare the observations (e.g. visibility, a list of all observers with names, functions, organisations, instructions which areas to attend and which not, safety briefing, presentation on the context and objectives of the exercise, etc.).

3.4 Conclusion on the JA in Vyskov

Even though there were no R&D partners involved in the exercise, it was very useful and interesting for the practitioners to attend this course because of the mixed profile of the course attendants and eNOTICE members: civil first responders, military participants, academic, 9 nationalities worldwide represented, different generations and levels of experience etc. First responders and military staff are used to be trained in their own environment and with peers, this setting was thus very unusual for all participants and mostly appreciated because of enriching discussions, interactions which led to new ideas and initiatives.

The main suggestion for improvement of this Joint Activity – which was a confirmation of previous feedback in other JAs - is the need for a protocol for observers. VESTA proposed to take the lead in developing and updating a protocol for observers to be implemented and tested in the next JA.

4 Report on the Gurcy Joint Activity

The full report of the Gurcy Joint Activity, based on the T4.1 Guidance and Templates, is included in Annex 3, a summary presentation and lesson identified is to be found in the following paragraphs.

4.1 Overall presentation of the Gurcy Joint Activity

The eNOTICE Joint Activity consisted of two main parts: the CNCMFE regional CBRN multidisciplinary field exercise, hosted by SDIS77, joined by the H2020 project TERRIFFIC; and the virtual deployment of a field hospital, organised as Serious Game Validation phase of the French National Project HOPICAMP, hosted by ARMINES.

The regional CBRN multidisciplinary field exercise, hosted by SDIS77.

The backbone of the Joint Activity was set up by a multidisciplinary field training session organized and hosted by SDIS77 under the authority of the French national civil-military CBRN training centre (CNCMFE). This training session is part of the national annual mandatory training plan. The objectives of the exercise were: to assess the interoperability of multidisciplinary civil-military teams in a terrorist attack situation; and to train security forces, first responders, HAZMAT teams and medical support units to work in close cooperation. The predefined evaluation criteria for the exercise were: 1) the capability of security forces to deal with a terrorist attack involving chemical warfare agents; 2) the capability of SDIS77 first responders to support the security forces, extract the victims from the hazardous area & carry out the assessment of the contaminated area (detection, sampling, zone marking).

This evaluation was carried out by the national civil-military CBRN training centre (CNCMFE).

As part of the overall eNOTICE objectives in the Joint aspect of this exercise was covered by the participation of the EU project TERRIFFIC.

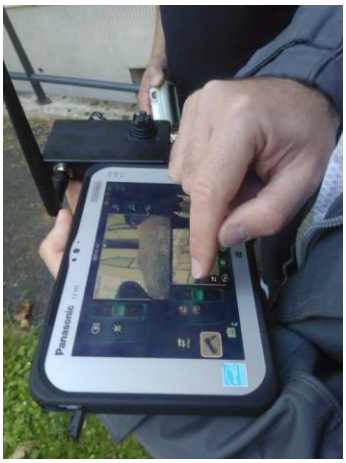
The core mission of TERRIFFIC is to develop a comprehensive system of complementary, interconnected and modular software and hardware components. Individually they will substantially enrich the European response to CBRNe events, but together, as an integrated TERRIFFIC System made available to all EU practitioners on the ENCIRCLE Catalogue, they will enable a step-change to the response in the initial hours.

The main objectives of the project are related to the specification, the development and the testing of this system and its core components. TERRIFFIC project started on April 2018 and finishes on April 2022.

TERRIFFIC participated in the exercise for the testing and demonstrating the augmented value of drones and robots for first responders. Both drones and robots were equipped with cameras in order to test their capability for in- and outdoor environment with contamination. The training environment provided by SDIS77 in Gurcy was a great opportunity to control and validate divers components of their objectives such as accessibility or efficiency in evaluating danger.

The main elements tested during the exercise were:

1. Tests of indoor /outdoor inspection in a building (NanoHawk)
2. Tests of indoor inspection in a corridor, accessed by stairs and search within rooms a radioactive source
3. Check danger where a big source has been identified
4. Outdoor inspection with drone
5. Outdoor inspection with robot and drone



The virtual deployment of a field hospital, hosted by ARMINES.

The aim of this course was to evaluate the interoperability between a large scale exercise and a serious game exercise based on the same CBRN scenario. Therefore, a virtual mobile field hospital was deployed to quickly take care of the victims. The goal was to set–up a serious game (virtual training device) designed to prepare the emergency medical teams of a field hospital before their intervention. The running of the Serious Game during the national CBRN Exercise and taking advantage of the scenario of this exercise, was set up as a validation.

The overall objective was to test the interoperability between large scale exercise and serious game exercise. The main objectives of the mid – term validation phase of the serious game were to ensure a high-quality product in terms of architecture, functionality, and features. The evaluation criteria are related to processes and systems that reinforce, monitor, encourage and reward the performance of critical behaviours on the training. Situational awareness will be focussed and monitored. The evaluation criteria were though four main observations: Leadership and work management, team work, situational awareness and decision making.

The practical exercise on May 21st 2019 was based on the team cooperation with following tasks: 1) the ability to actively collaborate in a Mobile Field Hospital under various constraints (lack of information, lack surgery means); 2) The ability to communicate with stakeholders from various agencies.

ARMINES took the advantage of the running of the field exercise, using exact the same scenario to validate the serious game developed as a virtual mobile field hospital.

4.2 Short description of the scenario

The scenario was a terrorist attack on an entertainment park, involving the use of a chemical warfare agent. A massive arrival of victims was conducted to the first triage point.

This was an exercise from SDIS77, a large scale exercise. Then, on the same scenario, based on the information provided by the large scale exercise, there was the ARMINES exercise. After the first triage point, the victims from the SDIS77 exercise were virtually implemented and sent in order to be treated on a comprehensive Mobile Field Hospital (that will be simulated by serious game). The serious game simulated various components of a real hospital (surgery bloc, resuscitation room etc.). Around 10 persons (medical doctors, nurses, paramedics) played their own role. Once the victims were treated, the entire loop was completed by a call to the representative of the closest hospital to get his approval and virtually evacuate the victim from the mobile field hospital.

4.3 Gurcy JA Debriefing and lesson identified

Two types of evaluation of the Gurcy JA were prepared: a hot and in depth debriefing, both project goals-oriented. The hot debriefing took place immediately after the exercise. This debriefing was not structured as it was aimed at collecting first and fresh impressions, right after the exercise. The main question to start from was “What are your feelings about this exercise?”. The in-depth debriefing was prepared, based on a list of questions meant to structure the discussions during the project meetings and to ensure input for all ongoing tasks. The collected feedback for both is explained separately in the following paragraphs. This distinction between ‘hot impressions’ and in depth feedback was one of the interesting lesson identified from the practices of the Nîmes hospital, during the JA in Nîmes in February 2018.

Useful discussions on the added value as well as the challenges of this type of exercises combined with observations, testing and validations were also on the agenda of the project meetings. The feedback and lesson identified from these different perspectives are summarised in the following paragraphs:

4.3.1 Feedback from the JA participants during the hot debriefing

The overall impression shared by the partners was a feeling of appreciation for the professional and good organization of this exercise.
The hosting partner raised that the integration of other projects into the exercise was not easy and was a process that revealed to be very time consuming.
The protocol for observers was used for the first time in this Joint Activity. It was highly appreciated by the observers. Both the draft provided by VESTA and the additions by SDIS77 were welcomed as useful to ensure a more focused and efficient participation of the observers (Annex 4). One of the additions by SDIS77 was the eNOTICE tabard, which also made the observers and the project clearly visible for other participants.
Due to the design of the exercise, observers were able to first attend a few of the different steps of the exercise in different workshops. The day of the full-scale exercise, there were less uncertainties thanks to these workshops.

The exercise was divided in different steps or workshops, in order to train the different first responders step by step, which ensured a better understanding of the context and procedures observed during the full scale exercise. The observation of these workshops was stressed as very interesting and useful.

Although the instructions of the hot debriefing were very clear in the sense that everyone was asked to give only impressions, feelings and not go into detailed or analytical considerations, this revealed to be a challenge. There was often a tendency to share feedback on operational aspects and observed practices and procedures rather than on the evaluation of the Joint aspect, as contribution to the eNOTICE objectives.

4.3.2 Feedback from the JA participants, based on the Evaluation & Debriefing Form

Most of the feedback obtained from these forms was positive. They confirmed mainly 2 elements:

- **Lessons learned from past JAs**

Many of the observers appreciated the way this JA was conducted. The lessons learned from past JAs, and especially the last JA in Gurcy (December 2017), were taken into account on the preparation, organisation and evaluation of this JA:

Based on the feedback from the Vyskov JA, a protocol for observers was used for the first time. This protocol provides guidelines for the pre-exercise briefing, exercise commandments and a checklist for the hosting exercise team. Thanks to the use of this protocol, the points of improvement from the JA in Vyskov were clarified. The observers had all information and context of the exercise and joining project, they knew their role and rules of behaviour as an observer. This helped understanding the exercise and making a clear view of the evolution and actions of the exercise. The hosting team in Gurcy added valuable ideas to the protocol, such as the previously mentioned tabards and a booklet with all the information for the observers.

For practical as well as linguistic reasons – the exercise participants were all French –SDIS77 appointed liaison officers to guide the observers, translate and provide more contextual information whenever relevant. This was highly appreciated by the observers.

- **Civil – Military cooperation**

This JA was a good example of civil-military cooperation, to the satisfaction of the mixed group of civil and military partners in eNOTICE.

Giving the attention at national, as well as EU level for civil-military cooperation to deal with CBRN threats, these JAs can be considered as interesting demonstrations to observe and learn from current practices in other countries. E.g. the transfer of the command of the assets on the ground from civil to military authorities raised interest among the observers.

4.3.3 Points of improvements for the Joint aspect

Although the participants appreciated the way this exercise was prepared and organised, new areas for improvements have been identified.

Minimum level of maturity required for 'Joint'

Integration of EU projects in the exercise is and remains very challenging. In this case, the project TERRIFFIC –which started in April 2018- joined the exercise. The aim of TERRIFFIC is to provide tools for early and effective reconnaissance in CBRNe incidents providing first responders faster information and enabling better management in the control zone. This JA was their first trial, and didn't go as smoothly as planned with a few issues with the not yet mature technology, though overall satisfaction was achieved and expected feedback from practitioners was obtained by TERRIFFIC developers.

When inviting other EU project to a regular exercise, the project and the project developments need a certain level of maturity in order to be useful and create benefit. When faced with non-working

technology, first responders might lose their trust into this new kind of technology, and by extension in research.

For the project partners, the effort of the intensive preparation phase might not pay off if the new technology is not ready to be tested properly and the learning curve of the participation if limited might discourage future joint activities.

Because of the complexity of the field exercise, hosted by SDIS77 under the responsibility of National CBRNe Centre, there was no full integration in the exercise, it was organised in parallel. Lesson identified from this are that the more complex the exercise, the more challenging to implement testing, validation or demonstration by an external research partner into the field exercise. Moreover, if the Training Centre is a hosting organisation but not the responsible owner of the exercise, this creates additional complexity and challenges to open up the exercise to external partners for testing and validation.

VIPs as a distinct category of observers

There were different VIPs invited to this exercise. The special arrangement for these VIPs delayed the exercise and imposed restrictions on the eNOTICE and other observers. The discussions on this, led to the suggestion to have a dedicated VIP day, so the real exercise and testing, can run more smoothly.

4.4 Design and implementation of a serious game

4.4.1 Feedback from the JA participants during the hot debriefing

- The feedback was mainly positive, all participants felt really interested to work in a realistic environment. The serious game (the possibility to be directly linked to a real exercise with real victims) brought an unexpected added value into the exercise.
- The interoperability between the two exercises (field exercise and serious game) and the real time presence of important information to the stakeholders was highly appreciated by the participants, allowing them to build their decision on behalf of each cell of action.
- Globally, the team felt really prepared in using the serious game and in dealing with the past inconvenient they faced in the past exercises.

4.4.2 Points of improvements for the Joint aspect

According to the participants but also from the partners, it was regrettable considering the high reality of the exercise, not to have visitors before the end of the serious game simulation. An improvement

point would be to think about the "time and space" problematics for visitors who want to be able to see an entire exercise.

Conclusion on the JA in Gurcy

- This last JA shows that gradually the organisation of this type of activity, which remains unique, is gaining more maturity. eNOTICE partners are more aware of the challenges, even obstacles to take into account in the preparation of a Joint Activity and lesson identified from previous JAs have found their way into new practices to improve the preparation. E.g. the use of the protocol for observers was a good and useful idea. This made the exercise clear for all the observers and more comfortable for the exercise direction and exercise participants (less disturbance). The protocol will update after every JA for continuous improvement.

- New challenges have been identified, such as the level of maturity of the tools to be tested.

  For a successful integration of R&D projects into the exercise, if the developments are not mature enough, this might compromise the exercise, complicate the organisation of the 'joint' aspect and could discourage the practitioners to use them or to keep an interest in research. Another new aspect raised was the attendance of VIPs.

- VIPs could interfere with the exercise, this has to be taken into account when making the schedule for the observers.

These lessons will be taken into account in future Joint Activities.

5 Updated JA calendar

The updated calendar of the Annual workshops and policy meetings – partially combined with JA's can be found here, present date until the end of the project.

	Date	Hosting partner	Location	Type of activity	
1	10-12.07 2019	WMP	Birmingham, UK	Table Top Exercise	
2	20-24.09 2019	FDDO + CNBOP	Dortmund, DE	Multidisciplinary Field Exercise + Table Top Exercise	Policy Meeting 2 Annual Workshop 2
3	25-28.02 2020	METU	Ankara, TR	Serious Gaming	
4	May 2020	VESTA	Ranst, BE	Multidisciplinary field Exercise	Policy Meeting 3
5	June 2020		Hannover, DE	Annual Workshop 3 in collaboration with FIRE-IN network project at Interschutz 2020.	eNOTICE Dissemination & annual workshop
6	October 2020	UNITOV	Rieti, IT	Multidisciplinary Field Exercise	

7	Jan 2021	WSU	Warsaw, PL	Table Top Exercise	Policy Meeting 4
8	Apr 2021	FDDO	Dortmund, DE	Multidisciplinary Field Exercise	Annual Workshop 4
9	Oct 2021	JCBRND COE	Vyškov, CZ	Live Agent Testing - Radiological Advanced Training Course	
10	Feb 2022	WSU + CBNOP	PL	Combined Civil-Military Exercise	Policy Meeting 5
11	May 2022	VESTA + UCL	Ranst + Brussels, BE	Multidisciplinary field X + Final conference	

Table 1 eNOTICE Provisional Calendar of future activities from March 2019 – June 2022

6 Feedback on the eNOTICE templates

A methodology for the preparation, organisation, evaluation and follow up was made to be used during the JA's. The use of this methodology and the corresponding templates is evaluated at each JA, either as such, or through their use as reporting format, as is shown in the annexes. In the following paragraphs, the feedback from the partners who organised a JA in the reporting period covered by this Deliverable is listed.

6.1 Feedback UNITOV and School of Rieti

The eNOTICE templates were available for the Rieti JA on October 2019, and were used partially for its preparation, the organization, evaluation and follow up of CBRN exercises.

The feedback of Italian Joint NBC Defence School on the use of the Templates is reported in the following paragraphs.

Since Italy is part of NATO and the Italian Joint NBC Defence School is a military TC, it refers to NATO procedures, standards and templates for the organization of every exercise, demonstration or real-life mission.

For this reason, some of the templates developed within the eNOTICE project were not used for the preparation, since the organization already had its templates, the unused templates are shown below:

- Template for exercise "Preparation and organization";
- Template for "Cost Calculation and personnel cost".

In hindsight, the eNOTICE templates used were those that most reflect the specificities of the Joint activity concept developed in the project, for the other templates the school made reference to its already well-established and consolidated tools.

6.1 Feedback Vyskov

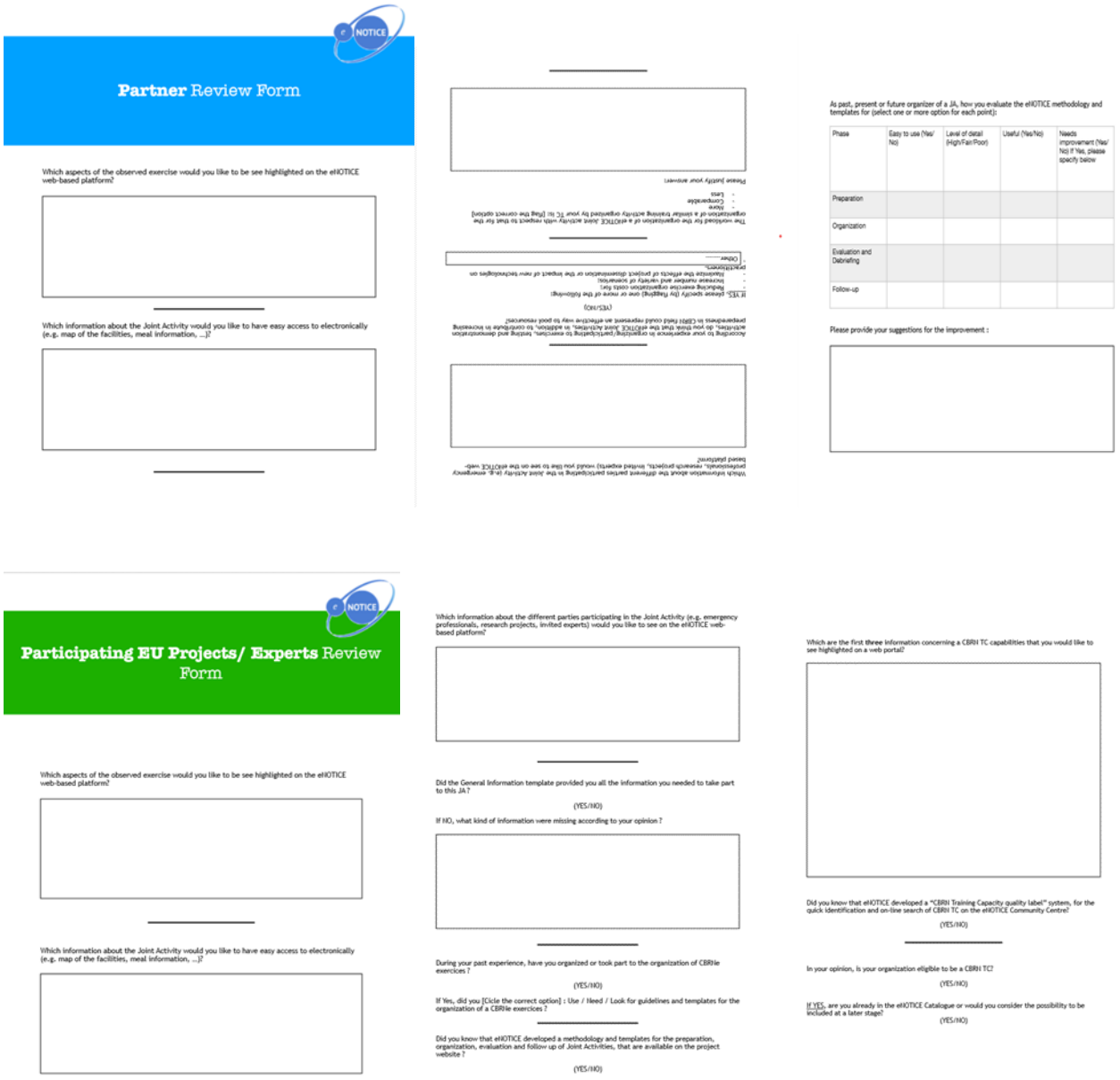
Since JCBRND COE and the eNOTICE consortium partner as well is basically a NATO organisation, it has its own NATO-standardized templates for the preparation, organisation, conducting and follow-up for the NATO courses and exercises. That's why the eNOTICE templates were not entirely used as a format for the reporting.
Nevertheless some templates purely aimed on the e NOTICE consortium business have been used, e.g. the General Information Sheet eNOTICE for a Joint Activity. Especially this template has no similarity in NATO and therefor it was used and found as very useful to make both sides, the HO including the course participants as well as the eNOTICE partners familiar with the ends, ways and means of the JA.
The template for the JA report in the aftermath seems to us as too comprehensive, academic and complex and repeating common eNOTICE issues which are well known, not focusing on the JA as such and therefor there might be the risk deviating from the real important topics of the JAs. Whereas the way to summarize several JAs into one document like this is to be seen as good approach.

6.2 Feedback Gurcy

Considering the lack of information and the possibilities of misunderstanding, Nicolas Raulin and Bastien Agostinelli provided new templates based on the T4.2 previously provided.
Both agreed (after reading and considering T4.2) on the the necessity to provide a total of 4 questionnaires: 2 for invited experts and two for Partners.
One was called "Review Form" and was providing all the questions presented in T4.2's tab (see example below) regarding a partner or a invited expert (A,B,C)

Task		Lead		A	B	C
WP3	Ongoing tasks	UCL/UPB	T3.2 (UPB): Which aspects of the observed exercise would you like to be see highlighted on the eNOTICE web-based platform?	X	X	X
			T3.2 (UPB): Which information about the Joint Activity would you like to have easy access to electronically (e.g. map of the facilities, meal information, …)?	X	X	X
			T3.4 (UPB): Which information about the different parties participating in the Joint Activity (e.g. emergency professionals, research projects, invited experts) would you like to see on the eNOTICE web-based platform?	X	X	X
			T3.1 (UCL): for you individually and for your organisation – how do you practically see the successful collaboration with CBRN TC network and with its members?	X	X	X
	4.1	ARMINES	What the key element in term of research and development did you discover during the exercice ?	x		
4.2	Joint activities	VESTA	Is this type of activity interesting for you? The type of testing circumstances that you would need for new developments? If yes: which aspects were interesting, if not: what else would you need?	X		
			What would be the selection criteria for you to choose a training centre who could host your exercise?	X		
4.3	Policy recommendations	UCL	From the perspectives of your organisation and you individually – what are your expectations from the network of CBRN Training centres?	X	X	X
			What would be an example of a very concrete request you would like to address as a priority to the CBRN TC network?	X	X	X

The following forms were made:



Partner Review Form

Which aspects of the observed exercise would you like to be see highlighted on the eNOTICE web-based platform?

Which information about the Joint Activity would you like to have easy access to electronically (e.g. map of the facilities, meal information, ...)?

As past, present or future organizer of a JA, how you evaluate the eNOTICE methodology and templates for (select one or more option for each point):

Phase	Easy to use (Yes/ No)	Level of detail (High/Fair/Poor)	Useful (Yes/No)	Needs improvement (Yes/ No) If Yes, please specify below
Preparation				
Organization				
Evaluation and Debriefing				
Follow-up				

Please provide your suggestions for the improvement :

Participating EU Projects/ Experts Review Form

Which aspects of the observed exercise would you like to be see highlighted on the eNOTICE web-based platform?

Which information about the Joint Activity would you like to have easy access to electronically (e.g. map of the facilities, meal information, ...)?

Which information about the different parties participating in the Joint Activity (e.g. emergency professionals, research projects, invited experts) would you like to see on the eNOTICE web-based platform?

Did the General Information template provided you all the information you needed to take part to this JA ?

(YES/NO)

If NO, what kind of information were missing according to your opinion ?

During your past experience, have you organized or took part to the organization of CBRNe exercices ?

(YES/NO)

If Yes, did you [Cicle the correct option] : Use / Need / Look for guidelines and templates for the organization of a CBRNe exercices ?

Did you know that eNOTICE developed a methodology and templates for the preparation, organization, evaluation and follow up of Joint Activities, that are available on the project website ?

(YES/NO)

Which are the first **three** information concerning a CBRN TC capabilities that you would like to see highlighted on a web portal?

Did you know that eNOTICE developed a "CBRN Training Capacity quality label" system, for the quick identification and on-line search of CBRN TC on the eNOTICE Community Centre?

(YES/NO)

In your opinion, is your organization eligible to be a CBRN TC?

(YES/NO)

If YES, are you already in the eNOTICE Catalogue or would you consider the possibility to be included at a later stage?

(YES/NO)

Also, seeing the Evaluation & Debriefing form provided in T4.2, it wasn't really clear why three questions were not provided.

In order to be more efficient and statistically focused, they decided to find 3 questions which could have been interesting for the statistics ran by eNOTICE.

They selected 3 relevant questions among the list presented at the end of T4.2 and made 2 Evaluation & Debriefing forms: 1 for the experts, 1 for the partners.

EVALUATION & DEBRIEFING FORM – JA GURCY eNOTICE PARTNER	EVALUATION & DEBRIEFING FORM – JA GURCY Invited expert
Name: Organisation:	Name: Organisation:
Question 1 - Were you able to achieve your objectives while participating in the exercise? (e.g. testing of technology)	Question 1 - In what way could the exercise be adapted so that it will become more interesting for you?
Question 2 -After observing the joint activity, do you feel like you have a better image of the needs of practitioners?	Question 2 - After participating in the joint activity, do you feel like there is a need for harmonisation/standardisation of exercise practices? Why (not)? What specific aspect?
Question 3 - Did participation in the exercise meet your expectations?	Question 3 - Do you consider this type of exercise as an interesting setting for a validation session as closure of the technical development process in an EU project? What is most interesting: interaction with practitioners, the infrastructure, other?
Question 4 - What do I take home?	Question 4 - What do I take home?
Question 5 - Does this exercise meet my expectations? If not, why?	Question 5 - Does this exercise meet my expectations? If not, why?
Other feedback or suggestions you would like to share with us?	Other feedback or suggestions you would like to share with us?

6.3 Feedback from the project meetings on the use of the Methodology and Templates

Most of the TC's have their own templates, and are in no need for new templates but nevertheless we should provide the TC our templates. They can be used in total or partially, to update their templates. Especially eNOTICE's templates about the integration of R&D projects into the exercise could be useful for TC's.

It has been decided the templates are useful and will be used by the consortium partners in the preparation of their JA's. They can be useful for other TC's in the network to, as they will be an added value in their existing templates.

7 Conclusions and Transversal lessons of the past JAs in Rome, Vyskov and Gurcy

The lesson identified from each JA are used in the preparation and organisation of the next JAs, thus creating a continuous loop of improvement during the whole project. Conclusions, lesson identified

and areas of improvement from the past JA's in Rome, Vyskov and Gurcy can be summarized as followed:

One of the lessons identified from the JA in Rome is that here is a need for a civilian-military exchange of good practice. During the I-RAPTOR course in Vyskov, as well as in the JA in Gurcy, there was a combined training and exercise of both civilian and military first responders. This kind of cooperation was well received by observes from both 'disciplines' and can be seen as successful.

- During the JA in Vyskov there were some issues raised about the role as observer. It was then decided to prepare a protocol for observers which was successfully used in Gurcy. This protocol for observers will be updated after every JA. This protocol should become –in the long term- an eNOTICE Good Practice.
- Every JA continues to experiment with debriefing and evaluation to maximise the identification of opportunities for improvement. From the JA in Nîmes, the approach of a hot debriefing focussing on impressions and feelings, rather than analytical feedback was systematically introduced. It remains challenging though to keep observers focussed on impressions instead of analyses. It also remain challenging to keep them focussed on the objectives of the Joint exercises rather than sharing feedback on the operational practices and comparing them to their own procedures. The latter is of course useful, but not the primary goal of these activities for the eNOTICE partners. More effort will be needed in the future to keep debriefing and evaluations focussed.
- For the in-depth debriefing, evaluation forms are prepared in advance to ensure feedback the partners need for the ongoing tasks. This practice is still in place. A point of attention remains to reserve sufficient time to discuss this feedback during the project meetings, to ensure follow up actions for the aspects that are relevant for the project.
- It has to be noted that in this report, only the feedback, relevant as input for Task 4.1 on the Methodology and Templates and for Task 4.2 on the JA themselves are included. The feedback for all other Tasks is gathered by the Task leaders, and will be integrated in the respective Deliverables of these Tasks.

New areas of attention have been identified:

- One of them is the observation that these JAs have certain limitations, such as the flexibility of the exercise director to integrate testing, validation or demonstrations. The scale of the exercise, the fact that the exercise owner is different from the exercise director, the maturity of the technological developments, the type of involvement – testing, validation or demonstrations, etc., all these aspects require a different type of preparation and different

requirements for the organisations. Lessons drawn from these test cases will be integrated into guidelines, specifically dealing with the Joint aspect of these exercises.

- A suggestion was given to add a short article in the newsletter or talking point for the stand at Interschutz, covering evidence based recommendations for ways to design and execute a JA.

Annex 1: Full report on the Rome JA, 9-10-11.10.2018

1 Report on Roma and Rieti Joint Activity

The full report of the Joint Activity, based on the T4.1 Guidance and Templates, is included in the following paragraphs.

1.1 PREPARATION

1.1.1 The context

The CBRN Operational Sampling Course aims at training CBRN Specialists in CBR survey and sampling activities as well as procedures. Beside of the course there was a demonstration based on national CBRN-EOD capabilities in case of combination of events. The course is addressed to give the students real capability and skill to successfully perform survey and sampling in a contaminated environment by unknown CBR agents and TIMs. They should be able to assess the risk and to ensure timely warning and reporting measures.

1.1.2 Objectives, expected results and evaluation criteria

Objectives:

- to assess the interoperability of multidisciplinary mil team and their cooperation;
- to apply standard procedure in accordance with NATO standards;

This exercise was also exploited by professional end-users to identify needs and gaps.

Evaluation criteria:

1. Technical Knowledge on:

   (a) Protection against CBRN threats in military operations, focusing on protection principles and procedures (individual and collective) including protection against Toxic Industrial Materials (TIM).

   The quality of the decision adopted were assessed between:

   - dedicated Instructor Team
   - external specialist observing the activity
   - specialist of each Department of the School (C, B, RN)
   - personnel belonging to the CBRN Operational Unit (7th CBRN Defence Regiment)

   (b) The quality level of biological samples collected by the Teams was assessed by the Biological Laboratory located in the NBC School

   (c) Survey and Monitoring;

   (d) Survey;

   (e) Ground Deposition Monitoring;

   (f) Radiation Sources Monitoring;

   (g) Surface CR contamination survey;

   (h) Ground laying and monitoring;

   (i) Collection, handle, package, preservation and transport of the following samples:

      i. environmental such as: low volume particulate air, surface soil, surface water, vegetation and pasture, swipes and smears;

      ii. unusual powders, liquids, defused munitions, arthropod vectors of diseases.

2. Clarification and improvement of techniques and procedures based on the nature of information and on the Situational Report delivered prior the team exercise start (provided by the responsible for each scenario C, B, RN) including weather condition. The specific action taken by each Team Leader must take in consideration:

   - Wind speed and direction;
   - physical health Stress condition and consequent measures adopted in terms of effect of wearing CBRN individual protection equipment on and individual and unit performance during military operations;

3. Operational interoperability (practitioners) between
   - the 5/6 component of each Team based on the individual assigned role;
   - Teams and the supposed deployed labs: sample exchange, quality assurance, white samples, max number for each media, etc.;
   - Sampling Team Leader and Survey Team Leader in the field;
   - Sampling Team Leader and HQ (by Radio).

4. Quality procedure, for sampling, inactivation and transportation to the lab including Chain of Custody and decontamination procedures for personnel and materiel (sensitive or not) supposed to be contaminated.

Objectives of the invited activity:

- Evaluate the training and exercise from the perspective of the projects that they represent (and also from the perspective of the entity they belong to);
- request to join the training activity proposed in the next iteration of the course;
- request the NBC School to join future training activities proposed by the NBC School;
- identify possible cross-domain activity that could be developed in the future within the different EU projects.

Evaluation criteria:

- Relevance of the specific training activity to the project;
- Relevance of the available training facilities and capacities for the project;
- Relevance of other training activities to the project;
- Opportunities for further collaborations;
- Interest in joining the network.

1.1.3 Type of exercise/activity and corresponding needs

The RIETI JA was an operation-based / full scale / field exercise and training based on the participation of different specialist area of national assets and multinational CBRN Operational Sampling Teams. The different proposed scenarios were adopted in relation to a possible response for a situation caused by incidental/accidental release, intentional release and/or natural outbreak (for Bio only).

1.1.4 Roles

The exercise roles and responsibilities were distributed among the NBC School staff and augmented from 7th CBRN Defence Regiment and National Counter IED Centre of Excellence:

Exercise director and coordinator – Col. Renato FELICIANI (Director) – Capt. Marco CAROSI (Deputy Director and Coordinator).

Exercise (project) team and Operators (Instructors) – Navy Commander Giovanni DI CREDICO (Radiological and Nuclear Department Chief), Captain Riccardo COLANTONI (Chemical Department Chief), Captain Federico BALDASSI (Biologist PH and Biological Department Chief), Captain Marco CAROSI (coordinator of the activity), Captain Daniele DEL GAUDIO (7th CBRN Defence Regiment Technical Section Chief), Captain Bruno FERRANDES (deputy coordinator of the activity).

Other Exercise (project) – Captain Marco GIORGI (Nuclear PH and Specialist for the Radiological and Nuclear Department), Captain Sandro MAGNANI (Chemical PH and Specialist for the Chemical Department), Ten. Col. Lorenzo DI BELLA (Specialist for the EOD deactivation and removal procedures).

Operational Sampling Course

Participants from Italy, Hungary, Spain, Portugal.

CBRN EOD activity

Personnel from Specialist Team of 7th CBRN Defence Regiment and National Counter IED Centre of Excellence.

The list of eNOTICE participants and external participants:

N°	First Name	Family Name	Affiliation	
1	Luigi	PALESTINI	Italian Fire and Rescue Service	External
2	Giorgio	BINOTTI	Italian Fire and Rescue Service	External
3	Giovanni	LONGO	GORE	External
4	Sabina	MAGALINI	Università CATTOLICA	External
5	Andres	MUMMA	EASS European Commission	External

6	Carlos	ROJAS PALMA	SCK-CEN (Belgium Nuclear Research Centre)	External
7	Karolina	MUTI	Istituto Affari Internazionali	External
8	Sung Chul	HONG	Dept. of Convergence Technology for Safety and Environment, Hoseo University	External
9	Sun Ho	JOO	Dept. of Convergence Technology for Safety and Environment, Hoseo University	External
10	Samuel	COLLINS	Public Health England	External
11	Francesco	GERI	Italian Civil Protection	External
12	Mariusz	MŁYNARCZYK	War Studies University Polonia	Enotice
13	Elizabeth	BENSON	West-midlands Police UK	eNOTICE
14	Frank Hervé	MIGNE NDJEM	University IMT MINES Alès	eNOTICE
15	Olga	VYBORNOVA	Université catholique de Louvain (Belgium)	eNOTICE
16	Jean-Luc	GALA	Université catholique de Louvain (Belgium)	eNOTICE
17	Bavo	CAUWENBERGHS	CAMPUS VESTA	eNOTICE
18	Maximilian	KIEHL	University UPB	eNOTICE
19	Andreas	Shultz	UPB	eNOTICE
20	Adam	WIECZOREK	CNBOP Research Centre For Fire Fighter	eNOTICE
21	Elif	SURER	University METU	eNOTICE
22	Per Erik	JOHANSSON	Europeiska CBRNE-centret Umeå Universitet	eNOTICE
23	Francis	COMAS	Seine-et-Marne Fire & Rescue Service	eNOTICE
24	Nicolas	RAULIN	Seine-et-Marne Fire & Rescue Service	eNOTICE
25	Sylvia	Pratzler-Wanczura	Institute for Fire Service and Rescue Technology	eNOTICE

26	Olivier	NESTLER	Institute for Fire Service and Rescue Technology	eNOTICE
27	Pasquale	GAUDIO	Università degli Studi di Roma Tor Vergata	eNOTICE
28	Daniele	DI GIOVANNI	Università degli Studi di Roma Tor Vergata	eNOTICE
29	Mariachiara	CARESTIA	Università degli Studi di Roma Tor Vergata	eNOTICE
30	Marco	CAROSI	Joint NBC Defence School	eNOTICE

Project represented:

	EU Project represented	**Brief description**
1	**TARGET**	TARGET is a pan-European platform developing the use of Augmented and Virtual Reality (AVR) and serious gaming techniques for the training and competence assessment of Security Critical Agents (SCA), including first responders (police, fire, emergency medical services), counter terrorism units, border guards and critical infrastructure operators.
2	**FIRE-IN**	FIRE-IN seeks to create, improve, animate and develop the first European Fire & Rescue Network, delivering solutions for safer European societies. It aims at improving the Fire & Rescue services capabilities, developing process by fostering innovation, promoting cutting edge solutions to recognise operational needs.
3	**SAYSO**	SAYSO's mission is to define the reference architecture and specifications for future innovative European cost-effective and user-friendly situational awareness tools that fulfil end-user requirements and can be used across different organisations, hierarchical levels and national borders. The future development of SAYSO-compliant Situational Awareness Systems for Multiple Stakeholders will allow Civil Protection practitioners to (i) share information; (ii) analyse hazards and uncertainties, (iii) obtain a clear picture of the situation at hand with relevant advice.

4	**MELODY**	MELODY will define, develop and deploy a harmonized CBRN training curriculum for first responders and medical staff (ambulance drivers, paramedics and emergency room (ER) personnel).
5	**NO-FEAR**	NO-FEAR is a 5-year Coordination and Support Action project that will bring together a pan-European and beyond network of emergency medical care practitioners, suppliers, decision and policy makers to collaborate and exchange knowledge, good practices, and lessons learned. Members of the network will have the opportunity to work together and collaborate to develop a common understanding of the innovation potential that fills operational gaps and pinpoint areas for future research. This multi-disciplinary, multi-national, and multi-sectorial collaboration will be supported by virtual tools, including the NO-FEAR platform and networking events (e.g., workshops, demonstrations, exercises) every 6 months.

1.1.5 Scenario

Background: For the operational sampling course every single area of the CBRN Defence had a dedicated scenario with different specifications - realized with the help of simulants in compliance with the directives regarding the Safe Live Agent Training. The exercise takes place in the morning of the 11th October with two interconnected and simultaneous parts:

OPERATIONAL SAMPLING COURSE

- **Scenario Chem**: The discovery of an aggressive type CWA (Chemical Warfare Agent) inside a clandestine laboratory hidden in an underground sewage system. Specifically, the staff has found different types of media to be sampled, such as powders, liquids (net agent), mask filters and protective clothing. Not far from the laboratory there was an area dedicated to the storage of contaminants and projectiles loaded with chemical weapons.

- **Scenario Bio:** Accident occurred in a production laboratory for biological agents and the discovery of a secret trapdoor leading to an underground area where biologically loaded devices were stored for offensive use;

- **Scenario Rad**: Finding of abandoned radiological sources and waste material from industrial processes with high radiological activity.

CBRN – EOD ACTIVITY

a. Risk Object briefing explosion, damage package and contamination

- Type: Radiological
- Identifier: R001
- Name: Dirty Bomb search
- Description: inside a backpack 3 medical radiological sources have been found, also a manmade dispersion device is attached to them.
- Position: 33TUG2360899466
- Release Scenario (RELEASE SCENARIO): dispersion of 3 radiological sources, explosion, damage package and contamination
- Qualification of Incident: Observed
- Type of Delivery: Device
- Number of Delivery Systems: 1
- Type of Substance Containers: Generic Storage Container
- Substance Container or Release: Explosions and Fire/Damaged Package and Contamination
- Description of Incident: Activated Radiological Dispersion Device
- Status of Incident: Single Release of a Cloud
- Release and Sampling Information on Radiological Incidents (INDIAR):
- Type of Source: Medical Source
- The Identification of a Material: Cesium
- Decay Rate: 2.64E-6
- General Text (GENTEXT): RADIOLOGICAL DISPERSION DEVICE ACTIVATED
- Incident Location: 33TUG2360899466
- Incident Time: 110830ZOCT2018
- Radiological Hazard Area Distance R1 (PAPAR1): 13000M
- Radiological Hazard Area Distance R2 (PAPAR2): 750M
- Radiological Hazard Area Distance R3 (PAPAR3): 400M

fig. 1 Plume of the contamination in case of activation of the Device

b. <u>Risk Object briefing intact package or device</u>

- Type: Radiological
- Identifier: R001
- Name: Dirty Bomb search
- Description: inside a backpack 3 medical radiological sources have been found, also a manmade dispersion device is attached to them.
- Position: 33TUG2360899466
- Release Scenario (RELEASE SCENARIO):
- Name of the Release Scenario: 3 radiological sources, intact package or device
- Default Release Scenario: NO
- Qualification of Incident: Observed
- Type of Delivery: Device
- Number of Delivery Systems: 1
- Type of Substance Containers: Generic Storage Container
- Substance Container or Release: Evidence of Disruption/Intact Package or Device
- Description of Incident: Non Activated Radiological Dispersion Device Release and Sampling Information on Radiological Incidents (INDIAR):
- Type of Source: Medical Source
- The Identification of a Material: Cesium
- Decay Rate: 2.64E-6
- General Text (GENTEXT): RADIOLOGICAL DISPERSION DEVICE NON ACTIVATED

- Incident Location: 33TUG2360899466
- Incident Time: 110830ZOCT2018
- Radiological Hazard Area Distance R1 (PAPAR1): 500M
- Radiological Hazard Area Distance R2 (PAPAR2): 50M
- Radiological Hazard Area Distance R3 (PAPAR3): 15M

fig. 2 Plume of the contamination in case of intact Device

1.1.7 Logistic requirements

The military compound in RIETI was chosen as the exercise venue due to:

- n.3 classrooms that allow the use of audio-visual device and host about 40 students each;
- n.1 conference room with audio visual devices with a capacity of about 100 seats;
- A dedicated training area with numerous realistic scenarios built on an area of about 10 hectares. The activities that could be conducted are in a controlled secure environment with appropriate security and safety conditions aimed to organize a large scale CBRN exercise;
- availability of qualified personnel trained in the CBRN field;
- suitable infrastructure – military barracks to host defence and civil protection teams;

fig. 3 NUBICH Training Area satellite view system

fig. 4 NUBICH Training Area

1.1.8 Communication Strategy

Internal communication

During the preparation phase, internal communication was ensured by UNITOV (Exercise director - Dr. Pasqualino Gaudio, Dr. Mariachiara Carestia, Dr. Daniele Di Giovanni) and the exercise military coordinator (Lieutenant Colonel Franco SALERNO) and exercise military organizer staff (Captain Marco CAROSI), in charge of the practical arrangements of organising the JA.

The internal communication comprised numerous preparatory meetings, calls, discussions between UNITOV, responsible for the general organization of the event, liaising with invited projects representatives, and invited stakeholders, with the military staff of NCB School of Rieti who provided the exercise facilities and logistics and with the key actors of the exercise on the scenario, roles and ways to achieve desired results.

External communication

The CBRN Operational Sampling Course organised as the JA within the eNOTICE project, had visibility on all the communication channels provided by the Ministry of Defence
And the CBRNe Master website, Linkedin, and Facebook accounts, and to increase the visibility of the JA at the national level, a press release in Italian language has been shared on the Ministry of Defence official channels:
https://www.difesa.it/SMD_/EntiMI/ScuolaNBC/Attivita_Eventi/Pagine/Scuola_NBC_ospita_e-Notice_ed_Operational_Sampling_Course.aspx
Besides, the JA has been publicly announced on the eNOTICE website, Facebook and Twitter accounts.

The following documents were elaborated and used for the CBRN Operational Sampling Course in Rieti; these information were shared with eNOTICE partners, invited representatives of the EU projects, invited experts and stakeholders:

1. The information & communication sheet was designed to communicate about the joint activity (see below)

• General information about the exercise to be carried out (objectives, expected results & evaluation criteria);

• Short description of the scenario;

• The expected agenda;

• Some practical information to join the exercise venue;

Then, Registration Forms and Informed Consent forms have been sent and collected

General Information Sheet eNOTICE for a Joint Activity

Part A: Summary description of the objectives and topic of the CBRN Exercise

Main activity	Invited activity
eNOTICE – field exercise with the focus on CBR Operational Sampling	**TARGET** **FIRE-IN** **SAYSO** **MELODY** **NO-FEAR**

1 Type of activity and contact details of the hosting exercise	Type of activity and contact details of the invited activity
Organising partner: SCUOLA INTERFORZE PER LA DIFESA NBC (SCNBC), The Course lasts 72 hours, 48 of which trains survey and sampling skills using standard protocols in CBR scenarios. Considering attendees are supposed to be CBRN specialists, the course will start with an initial short overview and update of the CBRN threats in military operations, focusing on protection principles and procedures (individual and collective) including protection against Toxic Industrial Materials (TIM). Afterwards, students will be grouped into teams (max 6 components each one) and will learn and practice survey and sampling procedures as detailed in relevant unclassified documents. The skill in such procedures will be achieved by several drills performed in the training area, where realistic scenarios are created by using "safe live agent" CBR and TIMs (sealed beta and beta-gamma sources, photo-luminescent powders and liquids, chemical simulating substances,	TARGET: Training Augmented Reality Generalised Environment Toolkit http://www.target-h2020.eu/ (Andres Mumma) FIRE-IN: The first European Fire and Rescue Innovation Network https://fire-in.eu/ (Luigi Palestini) SAYSO: Standardization of situational awareness system to strengthen operations in civil protection https://www.sayso-project.eu/ (Samuel Collins) MELODY: A harmonised CBRN training curriculum for first responders and medical staff (Carlos Rojas Palma)

innocuous bacteria and natural leavens like saccharomyces). During the course the teams will be equipped with sampling and survey instruments used by Italian NBC specialists. It will be also possible for students to use of their own instruments and devices, under own responsibility. For individual protection the students will use their own IPE (over-garment and respirator). However, in some exercises, they will wear an heavy protection suit provided by the ITA NBC School. During the course it will be provided a basic training on "no-light sampling and survey". Besides a Biological-Chemical laboratory will support the exercises in the training area in order to verify the quality level of biological samples collected by the Teams. The course is addressed to give the students real capability and skill to successfully perform survey and sampling in a contaminated environment by unknown CBR agents and TIMs. They will be able to assess the risk and to ensure timely warning and reporting.	NO-FEAR: Network Of practitioners For Emergency medicAl systems and cRitical care http://no-fearproject.eu/ (Sabina Magalini, Daniele Gui)

2 Type of activity and contact details of the hosting exercise	Type of activity and contact details of the invited activity
Objectives: to assess the interoperability of multidisciplinary mil team, their cooperation and to apply standard procedure in accordance with NATO standards. This exercise will also be exploited by professional end-users to identify needs. Evaluation criteria: At the end of the Course students will be able to conduct the following activities in a CBR and TIMs contaminated scenario: Survey and Monitoring: - Survey; - Ground Deposition Monitoring; - Radiation Sources Monitoring; - Surface CR contamination survey; - Ground laying and monitoring. Collection, handle, package, preservation and transport of the following samples: - environmental such as: low volume particulate air, surface soil, surface water, vegetation and pasture, swipes and smears; - unusual powders, liquids, defused munitions, arthropod vectors of disease.	Objectives: The projects' representatives will be observers of the exercises and they will have to identify opportunities to: - Evaluate the training and exercise from the perspective of the projects that they represent (and also from the perspective of the entity they belong to) - Request to join the training activity proposed in the next iteration of the course - Request the NBC School to join future training activities proposed by the NBC School Evaluation criteria: - Relevance of the specific training activity to the project - Relevance of the available training facilities and capacities for the project - Relevance of other training activities to the project - Opportunities for further collaborations - Interest in joining the network
3 Main activity: short description	**Description of the invited activity**

The aim of the "CBRN Operational Sampling Course" is to train CBRN Specialists in CBR survey and sampling activities as well as procedures. References as National and International Agencies documents and publications. This course is open to selected personnel already trained in CBRN monitoring survey and reconnaissance, who are expected to be employed in SIBCRA Teams. Ranks will range from "Enlisted personnel" to "Junior NCOs/Officers" and civilian equivalent. Participants should have basic operating standards of proficiency and be proficient in survival skills as well as in CBRN monitoring, survey, reconnaissance and contamination control. For students from NATO and PfP countries further details are provided in STANAGs: - 2451 - AJP3.8; - 2521 - ATP-3.8.1 vol. 1; - 2522 - ATP-3.8.1 vol. 2; - 4632.	The representatives of the activities will be observers of the exercise. The following is a brief description of the projects. **TARGET** is a pan-European platform developing the use of Augmented and Virtual Reality (AVR) and serious gaming techniques for the training and competence assessment of Security Critical Agents (SCA), including first responders (police, fire, emergency medical services), counter terrorism units, border guards and critical infrastructure operators. **FIRE-IN** seeks to create, improve, animate and develop the first European Fire & Rescue Network, delivering solutions for safer European societies. It aims at improving the Fire & Rescue services capabilities, developing process by fostering innovation, promoting cutting edge solutions to recognise operational needs **SAYSO SAYSO's** mission is to define the reference architecture and specifications for future innovative European cost-effective and user-friendly situational awareness tools that fulfil end-user requirements and can be used across different organizations, hierarchical levels and national borders. The future development of SAYSO-compliant Situational Awareness Systems for Multiple Stakeholders will allow Civil Protection practitioners to (i) share information; (ii) analyse hazards and uncertainties, (iii) obtain a clear picture of the situation at hand with relevant advice. **MELODY** will define, develop and deploy a harmonized CBRN training curriculum for first responders and medical staff (ambulance drivers, paramedics and emergency room (ER) personnel). **NO-FEAR: NO-FEAR** is a 5-year Coordination and Support Action project that will bring together a pan-European and beyond network of emergency medical care practitioners, suppliers, decision and policy makers to collaborate and exchange knowledge, good practices, and lessons learned. Members of the network will have the opportunity to work together and collaborate to develop a common understanding of

	the innovation potential that fills operational gaps and pinpoint areas for future research. This multi-disciplinary, multi-national, and multi-sectorial collaboration will be supported by virtual tools, including the NO-FEAR platform and networking events (e.g., workshops, demonstrations, exercises) every 6 months.

4 Facilities used for the activity	If relevant, extra facilities needed for the activity
	

5 Profile of the participants of the hosting exercise	Profile of the participants of the invited activity
Attendees of the NATO Selected CBRN Operational Sampling Course.	

List of participants to the JA, Workshop and Annual Meeting

Name	Surname	Affiliation	ROLE *	COUNTRY	EU-PROJECT
Andres	**MUMMA**	**Estonian Academy for Security sciences**	**PR/RS**	**Estonia**	**TARGET**
Carlos	**ROJAS-PALMA**	**SCK-CEN**	**RS**	**Spain**	**MELODY**
Samuel	**COLLINS**	**Public Health England**	**PR**	**United Kingdom**	**SAYSO**
Lorenzo	**MARCHESI**	**Università Cattolica del Sacro Cuore**	**PR/RS**	**Italy**	**ENCIRCLE**
Luigi	**PALESTINI**	**Italian National Fire Fighters**	**PR**	**Italy**	**FIRE-IN**
Giorgio	**BINOTTI**	**Italian National Fire Fighters**	**PR**	**Italy**	**FIRE-IN**
Francesco	**GERI**	**Italian Civil Protection Department**	**PR/PM**	**Italy**	
Karolina	**MUTI**	**Istituto Affari Internazionali**	**PM**	**Italy**	
Giovanni	**LONGO**	**GORE**	**IN**	**Italy**	
Sung Chul	**HONG**	**Dept. of Convergence Technology for Safety and Environment, Hoseo University**	**RS**	**South Korea**	
Sun Ho	**JOO**	**Dept. of Convergence Technology for Safety and Environment, Hoseo University**	**RS**	**South Korea**	

* PM Policy Maker, PR Practitioner, IN Industry, RS Academia/Research

PART B:
AGENDA AND PRACTICAL ORGANIZATION

Day 1: October 9, 10.00 - 17.00 **Project Meeting University of Rome Tor Vergata – Macroarea of Engineering** **Presidenza meeting room**	**Day 2: October 10, 9.00 – 16.30** **Exercise part 1: Joint NBC Defence School** **Piazza Marconi 7, 02100 Rieti** **NUBICH Training Area Via M. Curio Dentato 02100 Rieti**	**Day 3: October 11, 9.00 – 16.30** **Exercise part 2** **Annual meeting and Workshop** **Joint NBC Defence School** **Piazza Marconi 7, 02100 Rieti** **NUBICH Training Area Via M. Curio Dentato 02100 Rieti**
9.00 – 9.15 Registration of Participants – W*elcome coffee* 9.15 – 9.20 Welcome (UCL) 9.20 – 9.30 Practical information on the meeting (UNITOV) **Project meeting Part 1** 9.30 – 9.55 T2.1.2 Capacity (Quality) label and search function (SDISS) 9.55 – 10.20 T2.4 Framework and sustainability plan (UNITOV) 10.20 – 10.45 T3.2 Development of web based platform (UBP/FDDO) 10.45 – 11.00 Burning issues on Part 1 11.00 – 11.30 Coffee break **Project meeting Part 2** 11.30 – 11.55 T5.2.2 Evaluation for the functioning of the platform (UBP/FDDO) 11.55 – 12.20 T4.3 Identification of opportunities (UCL) 12.20- 12.45 T5.1 Consortium management / T3.1 Dissemination activities (UCL) 12.45 – 13.00 Burning issues on Part 2 13.00 – 14.00 Lunch **Project meeting Part 3**	**9.00 – 11.00 Transfer to Rieti (Joint NBC Defence School)** **9.00 Pick-up outside Campus X gate** *11.00 – 11.15 Welcome coffee* 11.15-11.30 Welcome by the NBC School 11.30 -12.00 Introduction to the school 12.00 -12.30 School's activities 12.30-12.45 Demonstration of the application of the Capacity Label (SDISS) 12.45-13.00 Q&A 13.00-14.00: Lunch 14.00 – 16.30 visit to training area and related scenarios 17.00 hotel check-in **18.30: Social Activity in Rieti** **19.30: Social Dinner**	9.00 – 10.20 Exercise (Operational Sampling Course, CBRN ACC, CBRN/EOD Activity) (Part 1) 10.20 – 10.40 Coffee break 10.40 - 13.00 Exercise (Operational Sampling Course, CBRN ACC, CBRN/EOD Activity) (Part 2) 13.00 – 13.30 Lunch 13.30 – 14.00 Debriefing 14.00 –16.30 Annual Meeting and Workshop 14.00 – 14.30 1 year of eNOTICE (UCL/VESTA) -Completed Tasks and outcomes -Ongoing Tasks and forthcoming activities -Updates on the eNOTICE external collaborations 14.30 – 14.50 Introduction to the Framework for a sustainable CBRN TC network (UNITOV) 14.50-15.00 *Coffee break* 15.00 – 15.10 Participants' round of presentations (identification of synergies with eNOTICE) 15.10 – 16.00 Question and Answer, focus on sustainability

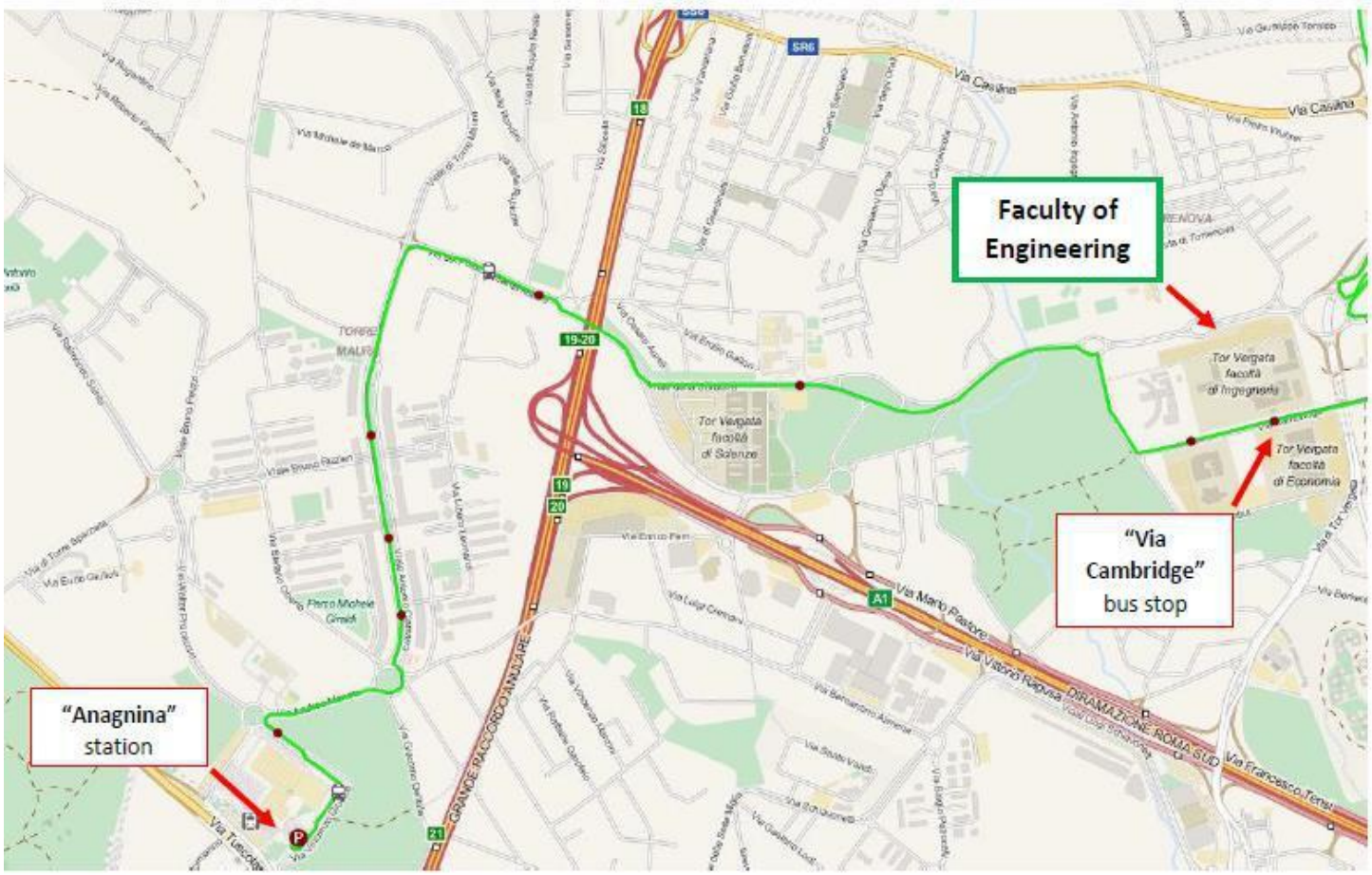
14.00 – 14.20 T5.3 Security, legal ethical aspects (UMU) 14.20 – 14.40 T5.2.1 Quality management, survey results presentation (VESTA) 14.40 – 15.00 T5.2 Technical management (VESTA) 15.00– 15.15 Coffee Break 15.15 – 15.25 Task 3.4 Integration of platforms and interfaces (UBP) 15.25 – 15.35 Next JA, Vyskov CZ (JCBRND COE) 15.35 – 15.45 T4.4 Plan to pool resources and optimise investments (UMU) 15.45 – 16.30: Discussion on Part 3 16.30– 17.00 Open discussion **19.45 Welcome dinner at Campus X**		16.00 – 16.30 Open discussion **16.30 – End of the meeting and transfer to Rome***

Accommodation, directions, practical info:

1. HOW TO: get to the Macro-area of Engineering

By public transport:

From the UNDERGROUND station “Anagnina” (line “A”) take the BUS “20 EXPRESS” (towards: “Cambelotti”) as far as the “Via Cambridge” stop.



2. Accommodation in Tor Vergata

Campus X

Due to logistic reasons, we suggest to book your accommodation at Campus X. Although, it is called “campus” it is actually a lodging facility for students and visitors managed by a private company.

Address: Via di Passolombardo, 341 00133 Roma
Web page: https://campusx.it/camere-roma/

3. Accommodation in Rieti

Hotel 4 Stagioni
Address: P.zza Cesare Battisti 14, 02100 Rieti
+39 0746.271071
Web page: https://www.hotelquattrostagionirieti.it/it/home-it.html

Hotel Europa
Address: Via San Rufo, 49
02100 Rieti (RI)
Web page: http://www.hoteleuroparieti.it/it/mappa_it.php

4a. Transfer from Rome to Rieti

On the 10th of October the NBC School provides a bus shuttle that will depart from Campus X (outside the main entrance). The shuttle will be waiting from 8.45 am

4b. Transfer from Rieti to Rome

On the 11th of October at 4.30 pm the Bus Shuttle will depart from the NBC School and will leave the participants at Roma Termini train station.
From Termini station it is possible to reach Fiumicino airport in approx. 40 minutes with Leonardo express
http://www.trenitalia.com/tcom/Treni-Regionali/Lazio/Leonardo-Express

5. Useful contacts

Mariachiara.carestia@uniroma2.it
(+39 3475326937)
Daniele.di.giovanni@uniroma2.it

(+39 3397415165)

Joint Activity Registration Form eNOTICE partners

To confirm your attendance to the eNOTICE Joint Activity organised in Rome and Rieti by University of Rome Tor Vergata and The Italian Joint NBC Defense School (UNITOV), on October 9-11, 2018, please send the complete form to mariachiara.carestia@uniroma2.it; daniele.di.giovanni@uniroma2.it before **September 10, 2018**.

Joint Activity	To be completed by the organiser of the exercise.			
Type of exercise:	Field exercise - focus on CBR Operational Sampling			
Location:	**Address:**	University of Rome Tor Vergata Macroarea of Engineering Via del Politecnico 1, 00133 Rome Joint NBC Defence School Piazza Marconi 7, 02100 Rieti NUBICH Training Area Via M. Curio Dentato 02100 Rieti		
	City:	Rome-Rieti	**Zip code:**	00133 - 02100
	Country:	Italy		
Timing:	**Begin:**	October 9, 2018, 9:00		
	End:	October 11, 2018 16:30 (plus transfer from Rieti to Rome downtown)		
Attendant(s)	To be completed by the attendant(s).			
Organisation:				
Representative (1):	**Name:**			
	E-mail:			

	Phone number:
Function within the organisation:	
Role during the exercise:	
ID /passport number	*Please have your ID with you on June 19 and 20!*
Nationality	
Date of birth	
Car licence plate number (if arrival by car)	
Arrival:	
Departure:	
Dietary restrictions/requirements:	
Representative (2):	**Name:**
	E-mail:
	Phone number:
Function within the organisation:	
Role during the exercise:	
ID /passport N°	*Please have your ID with you on June 19 and 20!*
Nationality	
Date of birth	
Car licence plate n° (if arrival by car)	
Arrival:	
Departure:	

Dietary restrictions/requirements:	
Comments:	

eNOTICE Joint Activity Registration Form

External participants

To confirm your attendance to the eNOTICE Joint Activity organised in Rome and Rieti by University of Rome Tor Vergata and The Italian Joint NBC Defense School (UNITOV), on October 9-11, 2018, please send the complete form to mariachiara.carestia@uniroma2.it; daniele.di.giovanni@uniroma2.it before **September 10, 2018**.

Joint Activity				
Type of exercise:	Field exercise - focus on CBR Operational Sampling			
Location:	**Address:**	Joint NBC Defence School Piazza Marconi 7, 02100 Rieti NUBICH Training Area Via M. Curio Dentato 02100 Rieti		
	City:	Rome - Rieti	**Zip code:**	00133 - 02100
	Country:	Italy		
Timing:	**Begin:**	October 9, 2018, 9:00		
	End:	October 11, 2018 16:30 (plus transfer from Rieti to Rome downtown)		

Attendant			
Contact details:	**Name:**		
	E-mail:		
	Phone number:		
Organisation:	**Name:**		
	Address:		
	City:	**Zip code:**	
	Website:		
Function within organisation:			
Field of expertise			
ID /passport number	*Please have your ID with you on June 19 and 20*		

Nationality	
Date of birth	
Car licence plate number (if arrival by car)	
Current involvement in EU or national R&D projects	
Specific interests and motivation to attend the eNOTICE Joint Activity	
Arrival:	
Departure:	
Dietary restrictions/requirements:	
Comments:	

Informed Consent Form

I, the undersigned, agree to take part in the eNOTICE field exercise with the focus on CBR Operational Sampling that will take place on October 11, 2018 at NUBICH Training Area Via M. Curio Dentato, 02100 Rieti. I confirm that the purpose and scope of the Joint Activity has been explained to my satisfaction. I am well aware of the above notes and the content of the Information Sheet and understand what the Joint Activity involves. I have had the opportunity to consider the Information Sheet, the verbal explanations given and to ask questions and I have had all my questions answered to my full satisfaction.

My participation in the Joint Activity is voluntary and I understand that I am free to withdraw at any time during the period of data collection and engagement with the researcher without giving a reason and without my right to medical care or my legal rights being affected in any way.

I understand that any information collected during the Joint Activity will be held in confidence and will only be shared within the eNOTICE project consortium. I understand that conclusions reached from the Joint Activity may be published in emergency planning and academic journals, as well as in project reports. I understand, however, that individuals participating in the Joint Activity will not be identified in any of such publications.

I consent to the processing of my personal information (name, affiliation, email address, phone number) for this project. I understand that such information will be treated in strict confidence and handled in accordance with the provisions of the Data Protection Act 1998. I understand that the project research team may use my data for future research and understand that identifiable data will be reviewed by the project ethics monitoring experts before such use to ensure it would not be included in any report.

I consent to my participation in the Joint Activity and in focus groups being video-recorded and transcribed. *(If and when needed!)*

City/training facility/place *Date*

……
Name typed

Personal data:

Name and surname:	
Contact details (phone number, email):	
Affiliation: (name and address, contact details)	

Additional information (to be stored in eNOTICE project internal databases):

Background/ Education:	
Expertise:	
Professional experience: (including important national or EU projects/ initiatives/ committees):	
Additional qualifications:	

1.4 Evaluation and feedback on the eNOTICE Templates

The eNOTICE templates were available for the Rieti JA on October 2019, and were used partially for its preparation, the organization, evaluation and follow up of CBRN exercises.

The feedback of Italian Joint NBC Defence School on the use of the Templates is reported in the following paragraphs.

Since Italy is part of NATO and the Italian Joint NBC Defence School is a military TC, it refers to NATO procedures, standards and templates for the organization of every exercise, demonstration or real-life mission.

For this reason, some of the templates developed within the eNOTICE project were not used, since the organization already had its templates, the unused templates are shown below:

- Template for exercise "Preparation and organization";
- Template for "Cost Calculation and personnel cost".

In hindsight, the eNOTICE templates used were those that most reflect the specificities of the Joint activity concept developed in the project, for the other templates the school made reference to its already well-established and consolidated tools.

Although all the relevant information for the preparation of the Joint Activity, in October 9-11, are present in the eNOTICE templates, for the above-mentioned reason not all the templates were used for the exercise organization.

Regarding the contents of the templates – they appear to be very detailed and relevant to the preparation and organization of the exercise.

CONCLUSION ON JA IN ROME – RIETI

The RIETI JA was an operation-based / full scale / field exercise and training based on the participation of different specialist area of national assets and multinational CBRN Operational Sampling Teams. The different proposed scenarios were adopted in relation to a possible response for a situation caused by incidental/accidental release, intentional release and/or natural outbreak (for Bio only).

The activities were based on the "NATO Selected Course CBRN Operational Sampling" and on the integration among CBRN and EOD Teams in case of unconventional use of Improvised Explosive Device (IED). The CBRN Operational Sampling Course aims to train CBRN Specialists in CBR survey and sampling activities as well as procedures. Beside of the course there was a demonstration based on national CBRN-EOD capabilities in case of combination of events. The course is addressed to give the students real capability and skill to successfully

perform survey and sampling in a contaminated environment by unknown CBR agents and TIMs. They should be able to assess the risk and to ensure timely warning and reporting measures.

The directive used as reference the ”BI-SC COLLECTIVE TRAINING AND EXERCISE DIRECTIVE (CT&ED) 075-003” is applicable to all NATO collective training and exercises. It can also be adapted for national and multinational exercises as appropriate. It should be used as a comprehensive guideline on how to plan, execute and assess NATO collective training and military exercises to provide ready forces for current and future operations. The precondition to use this directive is that an exercise is programmed in the Military Training and Exercise Programme (MTEP). The aim of NATO exercises is also to establish, enhance and display NATO’s Military Capabilities across the Alliance's full mission spectrum and to ensure the integration of effective and interoperable partner forces for NATO-led Crisis Response Operations (CRO) and Deployable Forces (DF) missions. Is essential to describe the main areas of the organization phase.

CONCEPT PHASE

As outlined in Bi-SCD 75-2, E&T (Education and Training) is categorized into two areas; Individual and Collective, which is then further described by four discreet areas: Education, Individual Training, Collective Training and Exercises.

a. Collective Training. Includes procedural drills and the practical application of doctrines, plans and procedures to acquire and maintain tactical, operational and strategic capabilities.

b. Exercises. Ensure that HQ and formations are efficiently and effectively trained to fulfill their missions within the given readiness criteria.

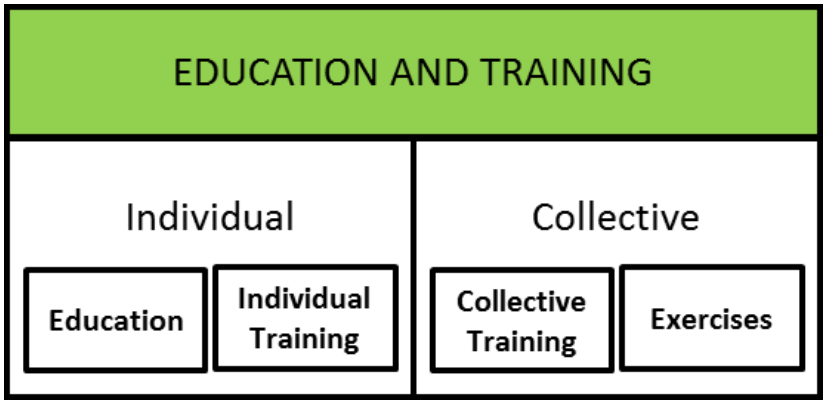


Figure 5 - Education and Training Definition

c. Based on the E&T Definition and the implementation of a Depth of Knowledge, taking the Policy principles into account, the principle execution of E&T is shown in the Figure below.

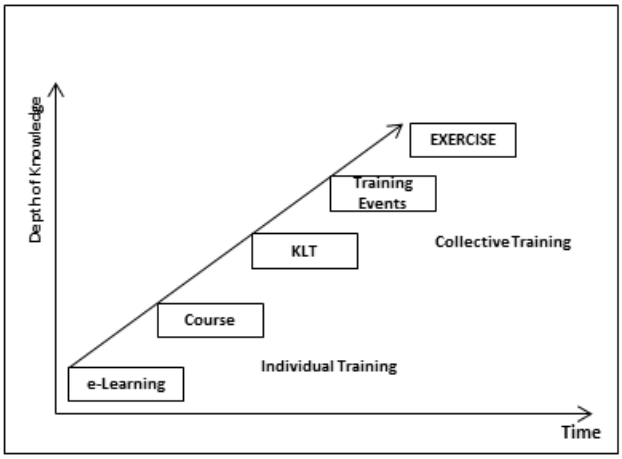


Figure 6 - E&T Execution

d. This generic approach ensures a build-up in training events, culminating in an appropriate exercise to prepare for a mission. It is important to recognise, that each level needs to be accomplished to move on. The accomplishment of the levels leading up to the exercise lays in the responsibilities of the respective commanders. Therefore, it is paramount to identify respective NATO entities early in the planning process to allocate the appropriate resources, also in the Individual Training. Also the Commanders should build up their situation awareness early, as they are responsible for the readiness of their command.

e. Although the strategic level might schedule the exercise, it is the operational level responsibility to achieve the identified exercise and training objectives with the support of NATOs programming and resource allocation process.

f. The respective commanders are to ensure a balanced, effective and efficient staff training plan with minimal duplication of training effort.

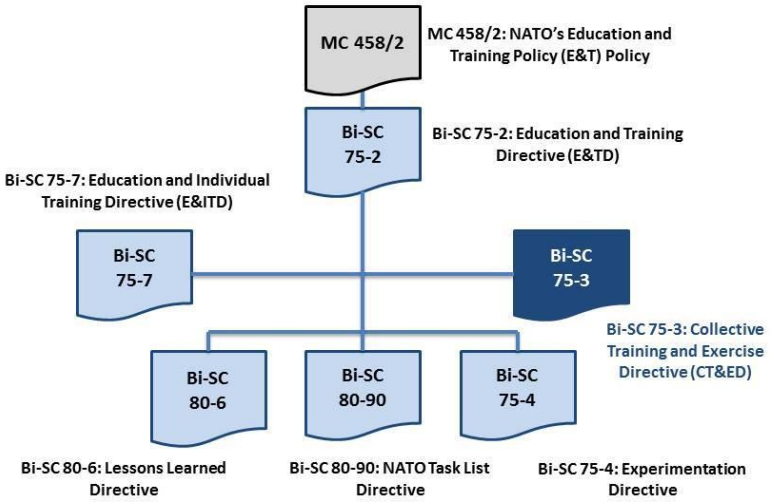


Figure 7 - Hierarchy of Principal E&T-Related Documents

Among the major deliverables of the Planning and Product Development Stage, the most important are the **Training Objectives**. Training Objectives (TOs) provide the basis from which exercises are designed, prepared, executed and assessed. The scope of missions is large but exercise's resources and duration are limited.

At the end of the conduction phase, other very important process is the **EVALUATION PROCESS** that allows, the responsible for the training, to adapt/modify/review the future training in case of gaps/additional needs represented. For this specific phase, normally, are used reports (feedbacks) delivered to the trained personnel or other subjects involved in the evaluation (evaluator Teams – internal and/or external, observers, other independent Teams). The entire process is generally composed by some pre – defined steps:

(1) After Action Review (AAR). The findings presented in the post exercise After-Action Review represent the initial, first level of "analysis". The majority of the observations and initial impressions covered during this session will form the basis for the First Impression Reports (FIR) which in turn further contributes to the FER.

(2) First Impression Reports (FIRs). FIRs are to be made to the responsible for conducting the exercise by each participating HQ, agency and team upon completing a sub-phase, phase and/or an exercise. FIRs contain the first assessment of the exercise or exercise sub-phase/phase.

The results of the AAR and FIR will be fundamental parts for the Lessons Learned / Lessons Identified (LL/LI) that are the crucial points for the evaluation of the exercise conducted and the starting points for the new one.

RESULTING FROM THE JOINT ACTIVITY

The activity conducted in Rieti, as above mentioned, were divided into two different main areas. The "Operational Sampling" is a scheduled as annual activity where NATO or PfP nations are involved in order to acquire the NATO standards for the specific CBRN activity.

For the CBRN – EOD training, is a "when required" one and organized in case of needs for the Special Teams, aimed to the integration of their specific requirements.

The results from the Joint Activity, from the NBC School and participants points of view, have given the following discussion talks that should be developed in the future:

a. Standardization protocol not only for operational activities but also for training and exercise. This action will permit to all personnel to adopt the same procedures for a common standard training in this specific sector;

b. Participation as a “National Team” should be suggested. The opportunity to be trained in the CBRN sampling on the field, following NATO standard, is a unique one and, if addressed to a Team that belong to the same nation/unit, the benefit should be highest than work in a multinational one;
c. The CBRN – EOD procedures are well standardized at National Level but, in case of Multinational Integration, a lot of gaps are still in place. A NATO standard is required for common procedures that can give the results in accordance with the requirements;

The CBRN Operational Sampling is an activity conducted in accordance with the “Safe Live Agent Training” concept. The interaction of the detectors with the Chem/Bio/Rad contamination is equally the same of the real one. The added value is that the operators can be trained “safely” and there absence of possible environmental pollution.

MAIN TOPISCS DEVELOPED

a. Threats by CBRN incidents (CBR agents and TIMs);
b. protection principles against CBR agents and TIMs and decrease of performance warming IPE;
c. survey and identification of radiological sources and radioactive contamination;
d. sampling of radiological agents following AEP-66 procedures;
e. survey and identification of chemical agents and TICs;
f. sampling of chemical, industrial and biological agents (AEP-66 procedures);
g. perform basic “no light” CBR sampling and survey” procedures;
h. report data following NATO procedures;

fig. 8 Personnel in FULL IPE

fig. 9 Radiological Contamination Detection

SOME “MEMORIES” OF THE ACTIVITY

fig. 10 part of the eNOTICE participants

fig. 11 Sampling Activity in a “NO LIGHT” condition

fig.12 Operational Decontamination

fig. 13 CBRN – EOD Procedures. Personnel cordoning the Area of Incident

fig. 14 Participants from eNOTICE, Operation Sampling and CBRN – EOD Teams

Annex 2: Full report on the Vyskov JA, 25-26-27-28.02.2019 and 01.03.2019

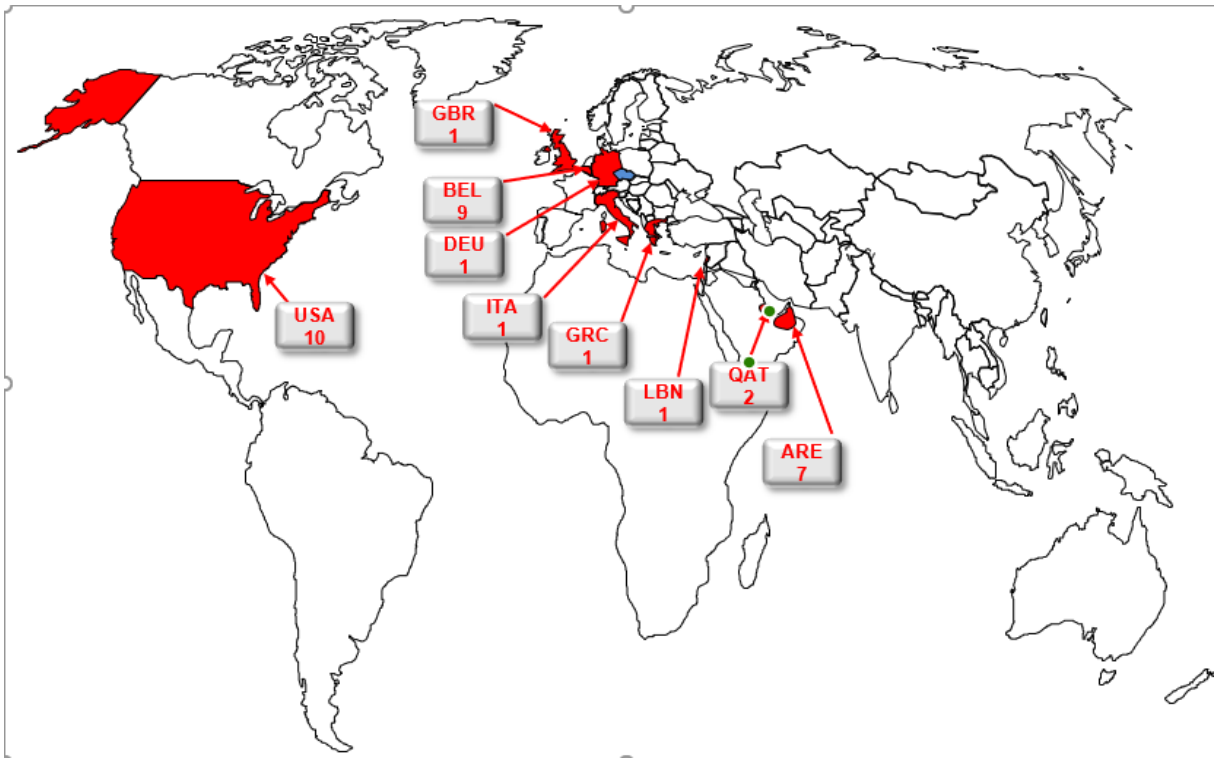
Brief description – objectives, participation, results

This was the first time a Joint Activity (JA) took place at the JCBRND CoE in Vyskov, Czech Republic, and it has to be planned and conducted in a slightly different way. The challenge was to combine and to integrate a regular residential course into an eNOTICE JA. The choosen course was the 'International Radiological Assistance Programme Training for Emergency Response (I-RAPTER) Basic Course 2019' including a practical training.

The aim of this course was to provide radiation protection specialists, first responders, law enforcement and emergency managers with practical information to effectively respond to radiological incidents and accidents. The course provided instruction through briefings, equipment demonstrations and field exercises with the use of a wide variety of radiation detection instrumentation, radiation sources and personal protective equipment. The course itself was conducted by the US National Nuclear Security Agency (NNSA) as part of the US Deparment of Energy (DoE). They came with ten instructors and all the needed equipment from the United States to Europe and were positively surprised by the huge number of students.

In total 32 students applied to this course and approximately 42% of these students were related to eNOTICE consortium members respectively to their institutions. So, for everybody, the Centre, the NNSA as well as for eNOTICE it has been a win-win situation.

This picture shows where the course students came from:



The objectives for the invited experts were defined as follows:

- The external participants to the course will take the course as an opportunity to reflect on the added value of opening activities of CBRN Training Centres for other CBRN (and public safety and security) stakeholders.
- They will be asked to identify opportunities to build a bridge between practitioners and academics, researchers and on the conditions to improve collaboration (through this type of participation) for both groups of security stakeholders.
- By extension, they will be asked to identify opportunities to exchange knowledge and practices between civil and military first responders.

Objectives for eNOTICE partners: to observe the practical training and identify
1) opportunities to strengthen the network of CBRN Training Centres;
2) best practices to share with the eNOTICE community;
3) input for ongoing eNOTICE Tasks.

As evaluation criteria for all participants were defined:

- Relevance of the specific training activity to the H2020 eNOTICE and other (national, EU, international) research projects;
- Relevance of the available training facilities and capacities for the H2020 eNOTICE project;
- Relevance of other training activities to the H2020 eNOTICE project;
- Relevance of this type of training to reinforce the creation of a network of CBRN Training Centres;
- Identification of conditions to improve collaboration between different security stakeholders groups through this type of activity ;
- Opportunities for further collaborations;
- Interest in joining the network;
- Discussions with students on potential future cooperation ;
- Relevance of JCBRN Defence COE capabilities for the H2020 eNOTICE project;
- Relevance of the Life Agent Training Area for the H2020 eNOTICE project.

The jointness of this activity was guaranteed by several common events:

- a common Photo,
- a formal social dinner, followed afterwards by several informal dinners and meetings,

- a practical preparatory training in the vicinity of the barracks (one afternoon), and
- a practical field exercise which took place an entire day at various locations including an outdoor museum for historical airplanes.

The scenario for the Air museum was as follows:
Mostly older, no longer in use air planes are suspected to have some real life radiological sources inside. The task is to find, localise and identify these sources by using properly the mobile detection devices and to – wherever possible – to render safe the material according to the relevant standards.

This photo shows the eNOTICE Consortium Members at the JCBRND COE:

This photo shows both, the eNOTICE Consortium Members and the I-RAPTER Course students and instructors.

Further impressions of the JA:

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The JA at the JCBRND CoE in Vyskov finally has been seen as very successful, for the I-RAPTER Course students and instructors, especially from the NSSA, and the eNOTICE members as well.

Report on the eNOTICE JA organized by JCBRN Defence COE from 25 February to 01 March 2019, Vyškov, Czech Republic

JOINT CHEMICAL BIOLOGICAL RADIOLOGICAL AND NUCLEAR

DEFENCE CENTRE OF EXCELLENCE

Ref. No. xx/2019 - JCBRND COE Date: xxth Jun 2019

TO: See Distribution

SUBJECT: Report on the eNOTICE JA organized by JCBRN Defence COE from 25 February to 01 March 2019, Vyškov, Czech Republic

REFERENCES: A. JCBRN Defence COE task ENOTICE_number 2019-002.
B. JCBRN Defence COE task IRAPTER_number 2019-012
C. JCBRN Defence COE Program of Work 2019
B. EU Horizon 2020 Research & Development

General: The JCBRN Defence Centre of Excellence (COE) Program of Work 2019 (Ref.C), tasked to conduct the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course and to organize the Horizon 2020 project - European Network of CBRN Training Centres (eNOTICE) Joint Activity (JA).

Significant details:

The eNOTICE JA event took place at the JCBRN Defence COE in Vyškov (CZ), in the timeframe 26 Feb – 01 Mar 2019 (Ref A)
This event was combined with the I-RAPTER Basic Course, conducted in cooperation with the National Nuclear Security Administration (NNSA) of the US Department of Energy from 25 Feb till 01 Mar 2019. (See the Ref B)

The eNOTICE JA was another step of the eNOTICE project as part of the EU Horizon 2020 Research & Development aimed at building a dynamic, functional and sustainable pan-European Network of CBRN Training Centres (TC) and seeks to improve preparedness, resilience and incident response to CBRN attacks and emerging threats, including cross-border incidents This Joint Activity provided unique opportunity for the identification and development of user-driven technological solutions as well.

The eNOTICE JA was planned, prepared and executed in accordance with the Reference “A”. The eNOTICE JA General Information sheet could be found in this document Annex 1.

The eNOTICE JA Consortium Meeting split into two parts was held on 27th February and 1st March 2019. The JA Consortium Meeting main objectives were as follows:
Clarifications on the eNOTICE Technical & Financial reporting
Presentation of the eNOTICE JA in Gurcy
Presentation of the eNOTICE JA in Birmingham

More details of the eNOTICE JA Consortium Meeting could be found in this document Annex 2 – “eNOTICE T4.2 Joint Activity Vyskov Minutes Record “
The Minutes also includes the hot debrief feedback of the consortium partners on the Joint Activity - I-RAPTER practical training day - on Thursday 28/2.

The I-RAPTER course aim was to provide radiation protection specialists, first responders, law enforcement and emergency managers with practical information to effectively respond to radiological incidents and accidents.
The course provided instruction through briefings, equipment demonstrations and field training with the use of a wide variety of radiation detection instrumentation, radiation sources and personal protective equipment. The field practical training was be held in the premises of the Radiological Laboratory and at the Vyškov Air Museum. Both venues set up inspiring background for detection and identification procedures, well as the safe transport of the discovered radioactive sources.

The I-RAPTER course Programme of Instruction (POI) Document III identifying the course content detailed information could be found in this document Annex 3.

The I-RAPTER course detailed "Post Course Report" could be found in this document Annex 4.

Point of Contact.

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UNCLASS: martinekd@jcbrncoe.cz
Telephone: NCN: 925-4200-452842
Commercial: +420-973-452842

Approved by:

Wolfgang Reich
Colonel, DEU A
JCBRN Defence COE Deputy Director

General Information Sheet eNOTICE for a Joint Activity
Part A: Summary description of the objectives and topic of the CBRN Exercise

Main activity	Invited activity
eNOTICE JA International Radiological Assistance Programme Training for Emergency Response (I-RAPTER) Basic Course 2019 including a practical training.	Participation of national experts, proposed or invited by the eNOTICE Consortium Members. The profile of the invited experts is: first response practitioners (fire & rescue, police, emergency medical services), lecturers from CBRN Training Centres and academics or developers involved in research to improve CBRN preparedness. Participation of the eNOTICE Consortium Members as observers in the practical part of the training.

1	Type of activity and contact details of the hosting exercise	Type of activity and contact details of the invited activity

Organising partner: JCBRN Defence COE The International Radiological Assistance Programme Training for Emergency Response (I-RAPTER) Basic Course, from 25 February to 01 March 2019: The aim of this course is to provide radiation protection specialists, first responders, law enforcement and emergency managers with practical information to effectively respond to radiological incidents and accidents. The course provides instruction through briefings, equipment demonstrations and field exercises with the use of a wide variety of radiation detection instrumentation, radiation sources and personal protective equipment; The field exercises and practical training will be held in the premises of the Radiological Laboratory and at the Vyskov Air Museum. Both venues will set up inspiring background for detection and identification procedures, well as the safe transport of the discovered radioactive sources.	External participants will participate in the course as eNOTICE observers. The national experts will follow the whole training course (1 week). eNOTICE partners will participate as observers in the practical part of the training (1 day), in addition a half day of Practical Equipment Training.

2 Objectives and evaluation criteria of the hosting exercise	**Objectives and evaluation criteria of the invited activity**
Objectives of the I-RAPTER course: - Basic Radiation Concepts and Biological Effects;	**Objectives for the invited experts**

- Radiation Detection Overview; - Interactive Radiation Detection Equipment Demonstration; - Personal Protective Equipment; - Radiological and Nuclear Threats; - Mission Planning Examples; - Field Exercise: Building Entrance Pedestrian Portal Radiation Monitoring, Building Radiation Search and Monitoring, Mobile Radiation Search and Identification, Group Search Exercise. **Evaluation criteria:** During the lessons the participants are familiarized with: - Basic Radiation Concepts and Biological Effects; - Radiation Detection Overview; - Interactive Radiation Detection Equipment Demonstration; - Personal Protective Equipment; - Radiological and Nuclear Threats; - Mission Planning Concepts and examples; - Search Concepts; - Alarm Interdiction and Adjudication; - Source Recovery; - Radiation Identification including DOE Triage. The practical exercise on 28 February 2019 is based on the team cooperation with following tasks:	The external participants to the course will take the course as an opportunity to reflect on the added value of opening up activities of CBRN Training Centres for other CBRN (and public safety and security) stakeholders. They will be asked to identify opportunities to build a bridge between practitioners and academics, researchers and on the conditions to improve collaboration (through this type of participation) for both groups of security stakeholders. By extension, they will be asked to identify opportunities to exchange knowledge and practices between civil and military first responders. Objectives for eNOTICE partners: to observe the practical training and identify 1) opportunities to strengthen the network of CBRN Training Centres; 2) best practices to share with the eNOTICE community; 3) input for ongoing eNOTICE Tasks. **Evaluation criteria for all participants:** - Relevance of the specific training activity to the H2020 eNOTICE and other (national, EU, international) research projects; - Relevance of the available training facilities and capacities for the H2020 eNOTICE project; - Relevance of other training activities to the H2020 eNOTICE project; - Relevance of this type of training to reinforce the creation of a network of CBRN Training Centres

1. Find, localize and identify the radiation sources using the mobile detectors which are placed in the transporter (mobile detection). 2. Find, localize and identify the radiation sources using hand held detectors in a building and in a laboratory.	- Identification of conditions to improve collaboration between different security stakeholders groups through this type of activity - Opportunities for further collaborations; - Interest in joining the network; - Discussions with students on potential future cooperation. - Relevance of JCBRN Defence COE capabilities for the H2020 eNOTICE project; - Relevance of the Life Agent Training Area for the H2020 eNOTICE project.
3 Main scenario: short description	**Description of the invited activity**
Regarding the I-RAPTER Course, the students / course participants, after having had received a full set of theoretical lectures and necessary background information, are now to proof their theoretical skills in a real life, practical scenario. Scenario Air Museum: Mostly older, no longer in use air planes are suspected to have some real life radiological sources inside. The task is to find, localise and identify these sources by using properly the mobile detection devices and to – wherever possible – to render safe the material according to the relevant standards.	N/A

4 Facilities used for the activity	If relevant, extra facilities needed for the activity
Radiological: - JCBRN Defence COE Classroom; - Radiological Laboratory, Vyškov; - Air Museum, Vyškov.	N/A

5 Profile of the participants of the hosting exercise	Profile of the participants of the invited activity
- Radiation protection specialists; - First responders; - Law enforcement and emergency managers.	- Invited experts: CBRN stakeholders, mainly first responders and experts involved in Research, Development and Innovation; - eNOTICE Consortium Partners.

Part B1: Practical organisation – Agenda (Draft) – <u>information for the I-RAPTER course participants only (Curriculum)</u>

Monday 25th February 2019	
0900	Welcome and Introductions
0915	Schedule Review and Pre Course Knowledge Survey
0930	Basic Radiation Concepts and Biological Effects
1030	Break
1045	Basic Radiation Concepts and Biological Effects
1115	Radiological and Nuclear Security Threats
1200	Lunch
1300	Radiation Detection Overview
1345	Break
1400	Interactive Radiation Detection Equipment Demonstration
1630	Discussion/Questions and End Day1
Tuesday 26th February 2019	
0900	Emergency Response Mission Planning Concepts
1000	Break
1015	Emergency Response Mission Planning Examples
1115	Radiological and Nuclear Search Concepts
1200	Lunch
1300	Alarm Interdiction and Adjudication
1400	Break
1415	Personal Protective Equipment and Demonstration
1530	Source Recovery Operations
1630	Discussion/Questions and End Day2
Wednesday 27th February 2019	
0900	Practical Equipment Training Overview
0915	Rotation 1
1030	Break
1045	Rotation 2
1200	Lunch
1300	Rotation 3
1430	Break
1500	Practical Field Training Review and Discussion
1545	Preview of Day 4 Activities
1630	Discussion/Questions and End Day 3
Thursday 28th February 2019	

0900	Practical Field Exercise Overview
0915	Practical Field Exercise – Rotation 1
1030	Break
1045	Practical Field Exercise – Rotation 2
1200	Lunch
1300	Practical Field Exercise – Rotation 3
1430	Break
1500	Practical Exercise Review and Discussion
1630	Discussion/Questions and End Day 4
Friday 1st March 2019	
0900	Radiation Identification including DOE Triage Program
0930	IXP Plume Modeling
1000	REAC/TS Medical Radiation Support
1015	Course Review, Post Course Survey and Graduation
1130	Course Adjourns

Part B2:
Practical organisation – Agenda (Draft) – <u>information for the eNOTICE members only</u>

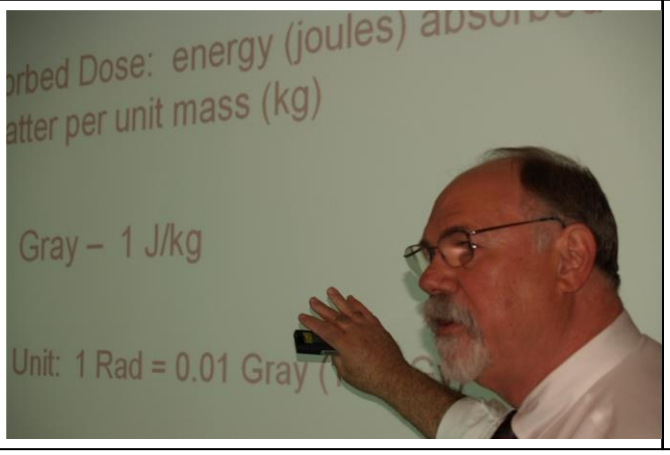
Tuesday 26th February 2019	
0800-0845	Transport to JCBRN Defence COE
0845-0900	Registration of Participants (Admin)
0900-0910	Welcome Address/ Admin Remarks (JCBRN Defence COE DIR/Admin)
0910-0945	Command Briefing (JCBRN Defence COE DIR/DDIR)[1]
0945-1000	Transformation Support Department Briefing (TSD DIR)[1]
1000-1015	Training, Exercises and Education Department Briefing (TEED DIR)[1]
1015-1045	Coffee Break
1045-1100	Operations Support Department Briefing (OSD DIR)[1]
1100-1145	COE Tour (Modelling and Simulation, Reachback, OSD DIR)[1]
1150-1200	Collective Photo
1200-1300	Lunch, Restaurant "U krále Jana Lucemburského" (approx. 20)
1300-1330	Transport to the Stone Cottage (TBD)
1330-1430	Live Agent Training exhibition (TBD)[2]
1430-1530	Transport to Brno (TBD)
1530-1630	Fire Fighters Training Centre (TBD)[2]
1630-1730	Transport to Vyškov (Hotel Atrium)
1845-1900	Transport from Hotel Atrium to Hotel Selský Dvůr

1900-2200	Social Dinner – Selský Dvůr/Atrium – eNOTICE + I-RAPTER
2200	Transport to Hotel Atrium/Selský Dvůr
Wednesday 27th February 2019	
0830-0900	Transport to JCBRN Defence COE
0900-1200	Consortium Meeting – 1st part
1200-1300	Lunch, Restaurant "U krále Jana Lucemburského" (approx. 20)
1300-1600	I-RAPTER (participation in Practical Equipment Training)[2]
1600-1630	Discussion (eNOTICE +I-RAPTER)
1630	Transport (Hotel Atrium)
Thursday 28th February 2019	
0830-0900	Transport to JCBRN Defence COE
0900-1200	I-RAPTER (participation in Practical Field Exercise)[2]
1200-1300	Lunch, Restaurant "U krále Jana Lucemburského" (approx. 20)
1300-1600	I-RAPTER (participation in Practical Field Exercise)[2]
1600-1630	Discussion
1630	Transport (Hotel Atrium)
Friday 1st March 2019	
0830-0900	Transport to JCBRN Defence COE
0900-1200	Consortium Meeting – 2nd part
1200-1300	Lunch, Restaurant "U krále Jana Lucemburského" (approx. 20)
1300	Transport – Hotel Atrium, Brno

1) Introduction of the JCBRN Defence COE serving as the focal point of the CBRN Defence in NATO, 26 February 2019:

- To make eNOTICE Consortium Members familiar with the tasks, the structure, the area of various support possibilities of the Transformation Support Department, the Training, Education and Exercise Support Department and the Operation Support Department;
- To introduce the Reachback Capabilities;
- To introduce the Modelling- and Simulation Capabilities;
- To introduce either the Life Agent Training Area in Vyškov or to observe dynamic display (CBRN First Responders) of the Fire Fighter Training Centre in Brno.

2) Introduction of the Life Agent Training Area in Vyškov, the Fire Fighter Training Centre in Brno.



Part C: Practical organisation – To be communicated to all organisations/persons who registered for participation

Practical information		
Dates:	25 February – 1 March 2019	
Location: JCBRN Defence COE, Víta Nejedlého, 682 03 Vyškov, Czech Republic		
Meetings and exercise:	JCBRN Defence COE Conference Room JCBRN Defence COE Classroom, Radiological Laboratory, Vyškov Air Museum, Vyškov	
Hotel/accommodation:	Accommodation during the workshop will be provided in the hotel Atrium, Vyškov, a single bed room (35-45 euros/night, breakfast included). JCBRN Defence COE will confirm the booking based on registration. The payment is responsibility of each hotel guest. Please note that participants who prefer to book a room in another hotel will be responsible for their own booking along with transportation from/to their hotel to the meeting location. https://www.hotelatrium.eu/en	
Contact person:	**Name:**	MAJ Eva Vitásková
	Mobile:	+420606640004
	E-mail:	vitaskovae@jcbrncoe.cz
Deadline for registration for the activity:	25 January 2019	
Transfer information		
Train:	**Transfer from Prague Airport:** by bus: take Student Agency bus (https://jizdenky.studentagency.eu/en/), the bus stop is located in front of Terminal 1, next to the main road, and go to Brno through Praha Florenc, bus station (necessary to change buses). Then take train from Brno (10 minutes walk from Grand Hotel bus station to Brno Main Railway Station is inevitable). by train: use public transport (AE bus) http://jizdnirady.idnes.cz/praha/spojeni) from Terminal 1 or Terminal 2 bus stop to Praque Main Railway Station (Wilsonovo nádraží). Then take a train to Vyškov through Brno or Olomouc. **Transfer from Vienna airport:** by bus: there are a few direct connections (Student Agency, Tourbus https://www.studentagency.eu/en/) from the airport bus stop No. 02 in front of Arrival Hall to Brno Grand Hotel bus station. Then take a train to Vyškov as mentioned above https://jizdnirady.idnes.cz/praha/spojeni/. by train: this connection requires to change the train at least 4 times to get to Vyškov, so we do not recommend it.	

	Bus connection from **Brno airport** is avalaible from bus stop in front of airport departure hall either to Main Bus Station (Zvonařka) and then take a bus to Vyškov, or to Grand Hotel bus station, then by train to Vyškov. For travelling around Vyškov town you can use taxi (+420800100611, +420777119959) or public transport (http://jizdnirady.idnes,cz/vyskov/spojeni).
Highway:	Vyškov is connected to the highway D1 from Prague via Brno and the highway from Ostrava via Olomouc. A detailed map of Vyškov will be provided on request. Taxi service from Vyškov Centre (railway station and hotels) to the garrison is not more than 200,- CZK (7,50 EUR). Prague Airport Václav Havel, the Czech Republic - Vyškov, Kroměřížská 449/4 (address of the Hotel Atrium) 2 hours 25 min, distance 266 km. Wien-Schwechat Airport, Austria Vyškov, Kroměřížská 449/4 (address of the Hotel Atrium) 1 hour 55 min, distance 178 km.
	JCBRN Def COE provides the shuttle bus from the hotels and vice versa. **JCBRN Def COE provides transport from Brno Main Railway Station/Hotel Grand, Brno International Airport and Vyškov Railway Station to Vyškov.**
Airport:	Prague, Václav Havel Airport https://www.prg.aero/en#/ Vienna International Airport https://www.viennaairport.com/en/passengers

DISTRIBUTION:

External:

Action: none

JCBRN Defence Centre of Excellence

POST COURSE REPORT

Information: eNOTICE project coordinater (after finalization)

Internal

Action: DIRECTORATE, TEED to prepare the JA in 2021

Information: SD, OSD, TSD

Annex 4 TO
Xx/2019 JCBRND COE
DATED xx JUN 2019

Travel Report Number / Conference Name:	**Location:**	**Date:**
2019-012 / WMD-CD-21765 International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course	Joint CBRN Defence COE Vyškov, CZE	25 Feb – 01 Mar 2019

Report Originator (Name / Phone):	**Other JCBRN Defence COE Attendees:**
LTC (OF-4) Jiri CHRASTEK, CZE-A / 973 452 861 (Course Director)	WO (OR-7) Peter Mohnacs, CZE-A, (Course Admin) MAJ (OF-3) Veronika DOCKALOVA, CZE-A, (Point of Contact) WO (OR-7) Pavel SKOPAL, CZE-A, (Course Facilitator) and others who supported the course (SD)
Key Words:	**Chaired by / Hosted by:**
COURSE RADIOLOGICAL EMERGENCY DETECTION	JCBRN Defence COE
1. Summary of Meeting:	

1.1
WMD-CD-21765 International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course was conducted from 25 Feb – 01 Mar in close cooperation with USA Department of Energy (DOE) / National Nuclear Security Administration (NNSA) and NBC Institute of the Czech University of Defence. The aim of the course was to provide practical information to effectively respond to radiological incidents and accidents. The course provided instruction through briefings, equipment demonstrations and field exercises employing a wide variety of radiation detection instrumentation, radiation sources and personal protective equipment.

1.2
Thirty-one [31] participants from nine [9] nations participated in the course. They were from ARE (7), BEL (9), DEU (1), GBR (1), GRC (1), ITA (1), LBN (1), QAT (1) and USA (9). Nine [9] of them were students from University of Tor Vergata in Rome.

1.3
As a Course Director, I can confirm that the course was successfully accomplished and met the aim and learning objectives. According to students' feedback, the course was evaluated as very useful and of important value for their current job and their career's development. In addition, speakers and students mentioned excellent organization and preparation of the course. This year's iteration was unique as it served as a venue for the Joint Activity (JA) of the European Network of CBRN Training Centres (eNOTICE).

2. Significant Details:

2.1
The Learning Objectives (LO) were:

- LO 1 Basic Radiation Concepts and Biological Effects;
- LO 2 Radiation Detection Overview;
- LO 3 Interactive Radiation Detection Equipment Demonstration;
- LO 4 Personal Protective Equipment;
- LO 5 Radiological and Nuclear Threats;
- LO 6 Mission Planning Concepts;
- LO 7 Mission Planning Examples;
- LO 8 Search Concepts;
- LO 9 Alarm Interdiction and Adjudication;
- LO 10 Source Recovery;
- LO 11 Field Exercise;
- LO 12 Radiation Identification including DOE Triage;
- LO 13 Radiation Plume Modeling with Demonstration.

The team of lecturers consisted of seven [7] NNSA instructors:

- Mr. Andrae BROOKS (Team leader and Evaluator / Observer);
- Mr. James BUTLER;
- Mr. Michael MURRAY;
- Mr. Frank E. MOORE;
- Mr. Kevin ROLFE;
- Mrs. Jacqueline BRANDON;
- Mr. Kevin Lee BORDERS.

and of four [4] DTRA instructors/students to reinforce NNSA instructors in practical parts:

- Mr. Alexis ROBINSON;
- Mr. Michael POST;
- Mrs. Christine MYERS;
- Mrs. Sacha MOORE.

and of two [2] NBC Institute instructors to provide radiological sources for field training:

- Mr. Jiří JANDA;
- Mr. Daniel SAS.

Mr. BROOKS observed the course in order to evaluate it and modify the content for the next iterations.

2.2
During the theoretical part students got familiar not only with variety of radiation detectors but also with the procedures related to this issue. Third and fourth day was dedicated to the practical training with the following tasks:

- Conduct radiological pedestrian search operation in a building and outdoor;
- Conduct source recovery operation (locate and identify the luggage, in which radioactive source was hidden, then recover it to secure environment);
- Conduct radiological mobile search operation in the area of Vyškov garrison and the Air Museum in Vyškov.

In the course of the mobile search the students successfully discovered different levels of activity sources located in all area of the Air Museum (and on different aircrafts - icing indicators, switches in the cockpit). The students were engaged in the instructions, asking excellent questions, and found the field exercises valuable to gain hands-on experience using radiation detection equipment. In total, the course covered several types of radiological incidents, command and control group makeup for incident response, how to brief concepts of operation to operational teams and how to work with outside agencies such as police and security forces, foreign governments and news agencies in the event of a CBRN event.

The students appreciated the extensive knowledge of the instructors and their willingness to share their experience.

Based on students' recommendations from last iteration the full individual protective equipment in the practical training activities has been included. Current course iteration has shown that we need the larger classroom with several syndicate rooms and room for equipment storage is necessary as well.

The course is very demanding on logistical, administrative and transportation organization and requests a lot of additional support not only from Support Department but also from other COE personnel.

2.3
This iteration of the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) Basic Course was the last one. The new planned course will be a modification focusing primarily on the radiological part of the expertise (specialized training for radiological emergency preparedness and response operations). The new course will be named **International Radiological and Nuclear Training for Emergency Response (I-RAD) Basic Course**.

3. Proposals, Tasking, Follow-on actions for Meeting Attendees or other COE Personnel:

3.1
Proposals:

- Continue in cooperation with DOE/NNSA;
- Continue with practical activities in close cooperation with NBC Defence Institute / University of Defence, CZE and with the Air Museum Vyskov;
- Consider the possibility for Mobile Training Solution in 2020.

3.2
Tasking (TEED):

- Write an article and publish it on the JCBRN Defence COE web page;
- Make a change in ETOC in accordance with 2.3.

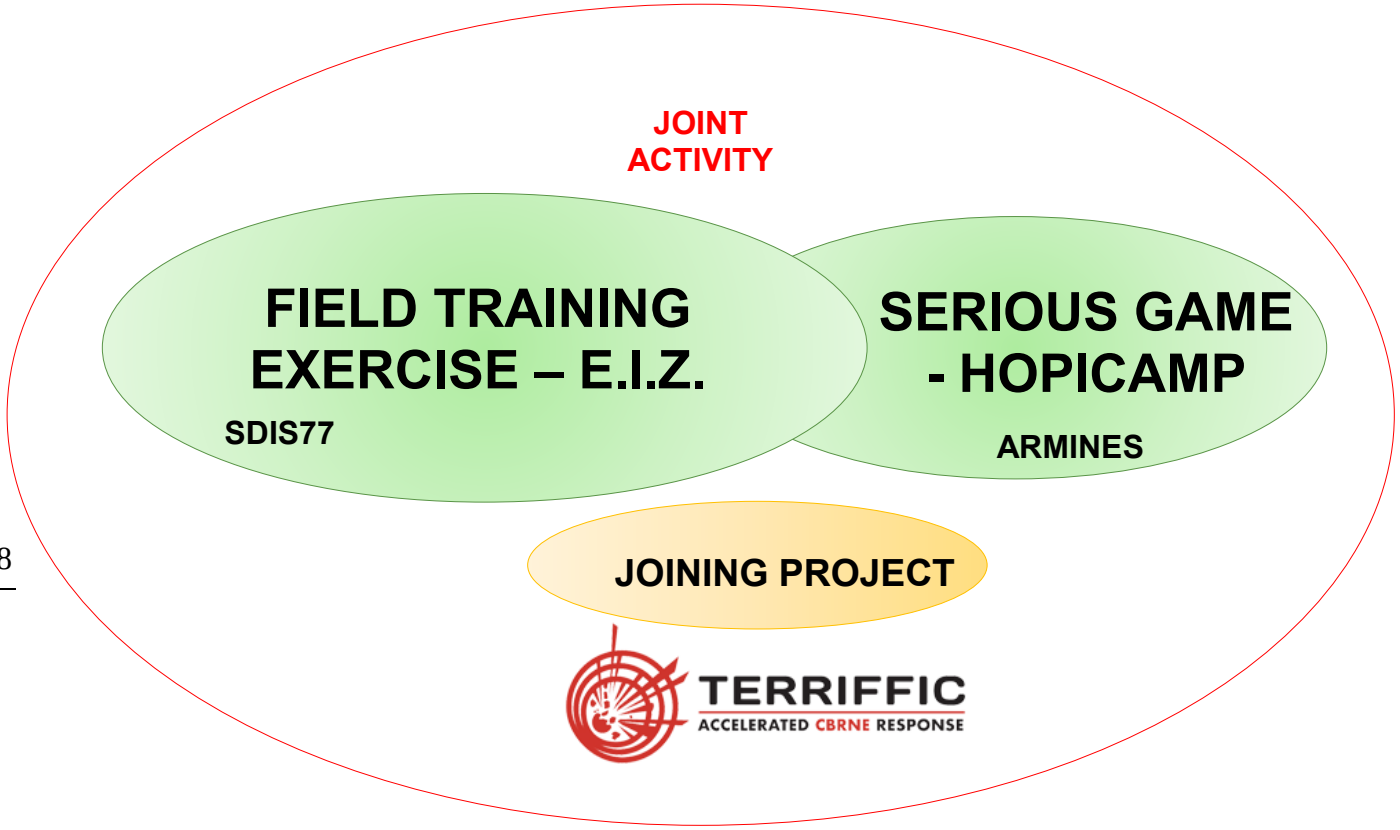
4. Next meeting:

Mobile Training Solution in 2020 on request.

Annex 3: Full report on the Gurcy JA, 21-22-23-24.05.2019

1. PREPARATION

The JA in Gurcy was based on a mandatory field training exercise, organised by the CBRN-E national civil-military training centre and the general secretariate of the Ile de France defense & security zone.
The HOPICAMP project validation phase was used in parallel as a serious game training exercise.
The "joint" part was ensured by the TERRIFFIC project



1.1.CONTEXT

THE CBRN-E NATIONAL CIVIL-MILITARY TRAINING CENTRE (CNCMFE)

The goal of CNCMFE is to enhance the operational capabilities of first responders and state agencies against CBRN-e risks and threats.

Created in 2014, the CNCMFE is a national agency attached to the General Directorate of Civil Security & Crisis Management (DGSCGC, French Ministry of Interior). Its main missions are:

- Development of multi-disciplinary training policy;
- Development of learning techniques in order to set up multi-disciplinary operational procedures.

The CNCMFE is based on a central core in Aix-en-Provence, with a territorial network of zonal training centres (CEZ). Its plays a major role in the organization of multi-disciplinary zonal field training exercises (EIZ), which are carried out under the responsability of the defense &security zone's prefects. During the EIZ, the CNCMFE missions are to advise the exercise directors on the theme and objectives, as well as enforce the national CBRN-E policy.

The CNCMFE also organises « specialised » field training sessions aimed at the enhancement of multi-disciplinary cooperation on specific issues (for example medical management of contaminated wounded people).

Finally, the CNCMFE proposes various courses in Aix-en-Provence for public agents (health, interior, armed forces, etc.). All these courses are carried out in strict observance of guidelines and doctrines established by the General Secretariate for Defense and National Security (SGDSN).

THE INTERMINISTERIAL FIELD TRAINING EXERCISES (EIZ)

The EIZ allow the various actors to work together in realistic scenarios, in order to enhance the common operational procedures. The main targets of these EIZ are the non specialized first responders ; the IEZ will allow them to get familiar with operational procedures of units specialized in CBRN-E crises management.

The specific objectives of each EIZ are set up by the defense and security zone interministerial staff ; they are based on the CNCMFE annual training guidelines and prefectoral directives.

These two day exercises allow the participants to acquire specific skills, by following a learning philosophy based on « do – make do – make do again ».

Each EIZ can train up to 200 participants from various ministries and agencies.

Each EIZ is organised in three phases:

- "Acculturation » phase : theoric courses on CBRN issues ;
- « Mechanisation » phase : learning of specific skills in thematic workshops (« do – make do » ;
- "Directed game" phase: restitution of skills in the framework of a dedicated scenario (« make do again ».

THE ILE-DE-FRANCE LAYOUT

The coordination of the Ile-de-France layout is ensured by the General Secretariate of the Paris Defense and Security Zone (SGZDS), which is responsible for the implementation of the EIZ (objectives – scenario – logistic issues).

The zonal training centre for the Ile-de-France Defense and Security Zone is hosted by the training centre of the FIre and Rescue Department of Seine-et-Marne (SDIS77).

For each EIZ, one or two districts are selected to undergo the training session ; this allows the first responders and actors from all the Ile-de-France to develop common operational procedures.

The preparation, organisation and follow-up of the EIZ are carried out by a dedicated committee within the SGZDS. This commitee hosts specialists and experts in different fields of CBRN-E crisis management.

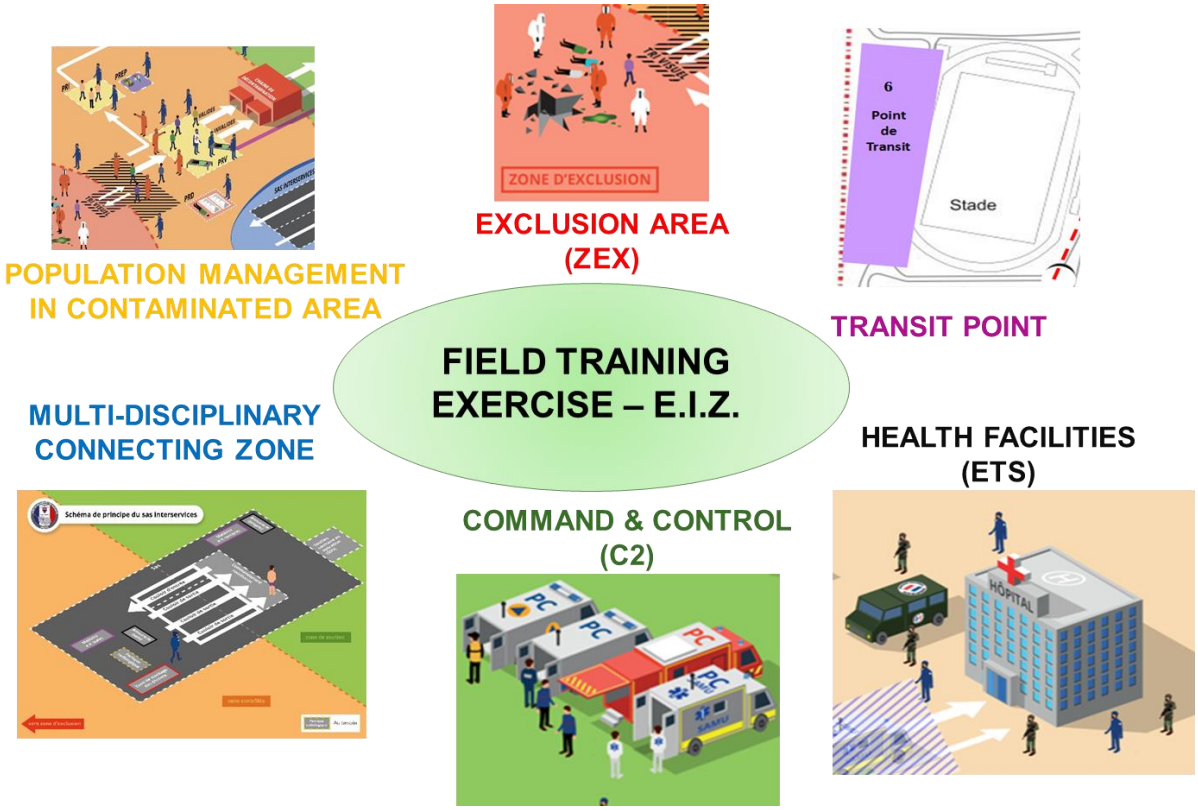
THE GENERAL SECRETARIATE OF THE DEFENSE AND SECURITY ZONE (SGZDS)

Under the authority of the prefect of Paris, who is also the prefect of the Ile-de-France defense and security zone, the SGZDS is tasked with the preparedness and the management of all crises. Its main missions are:

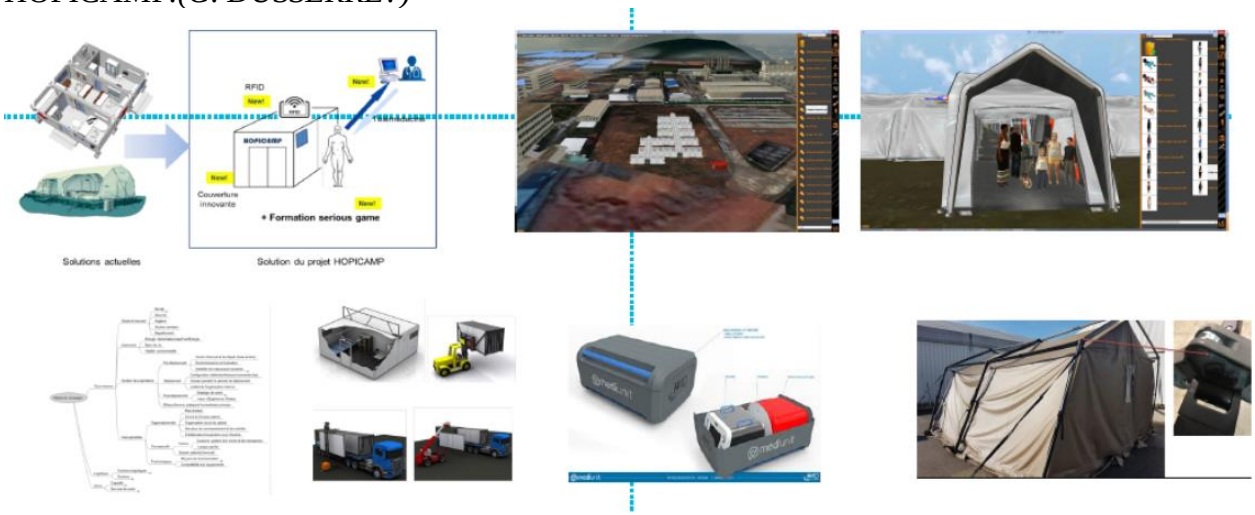
- Permanent operational monitoring (COZ)
- Preparation, enforcement and control of crisis response plans (ORSEC)
- Coordination of Fire and Rescue Departments at the Ile-de-France scale
- Organisation of the EIZ
- Coordination and control of the participation of armed forces in crisis management
- Crisis communication, information synthesis, population warning procedures
- Coherence of health and economic security measures
- Coordination of road traffic during a major crisis

1.2.TYPE OF EXERCISE

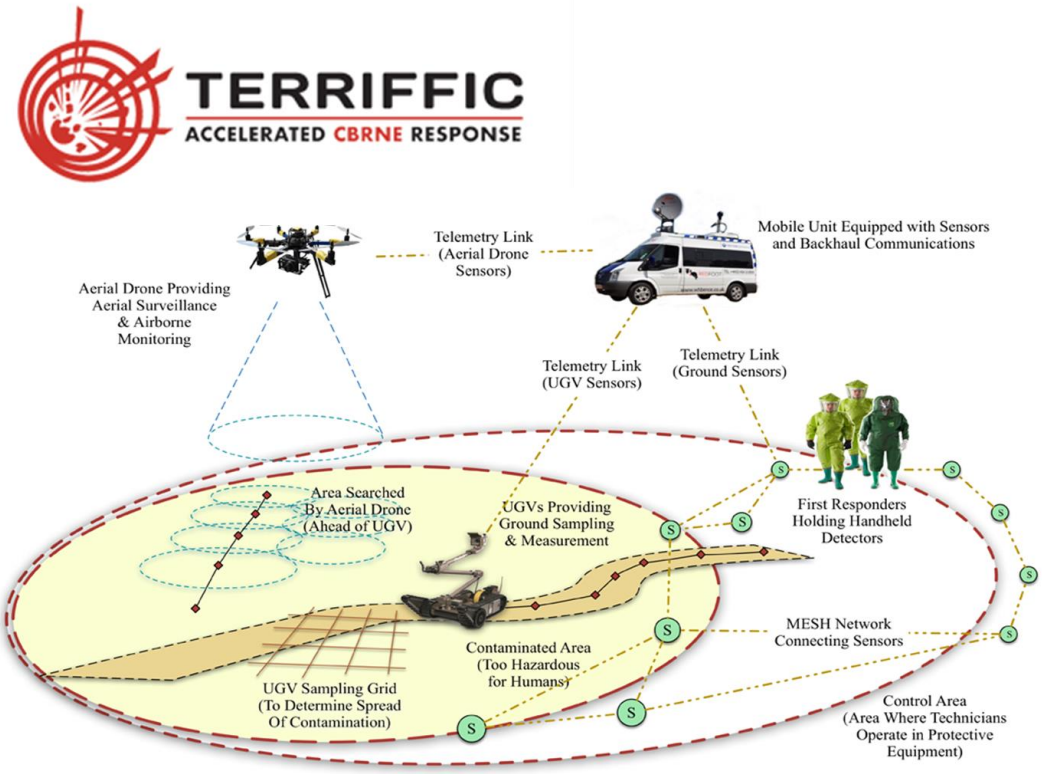
The first part of the JA was a field training exercise, called EIZ, which consisted in several workshops:



The second part of the exercise was a serious game, aimed at the validation of the French project HOPICAMP.*(G. DUSSERRE?)*



TERRIFFIC project ensured the “joint” part of the activity in Gurcy.



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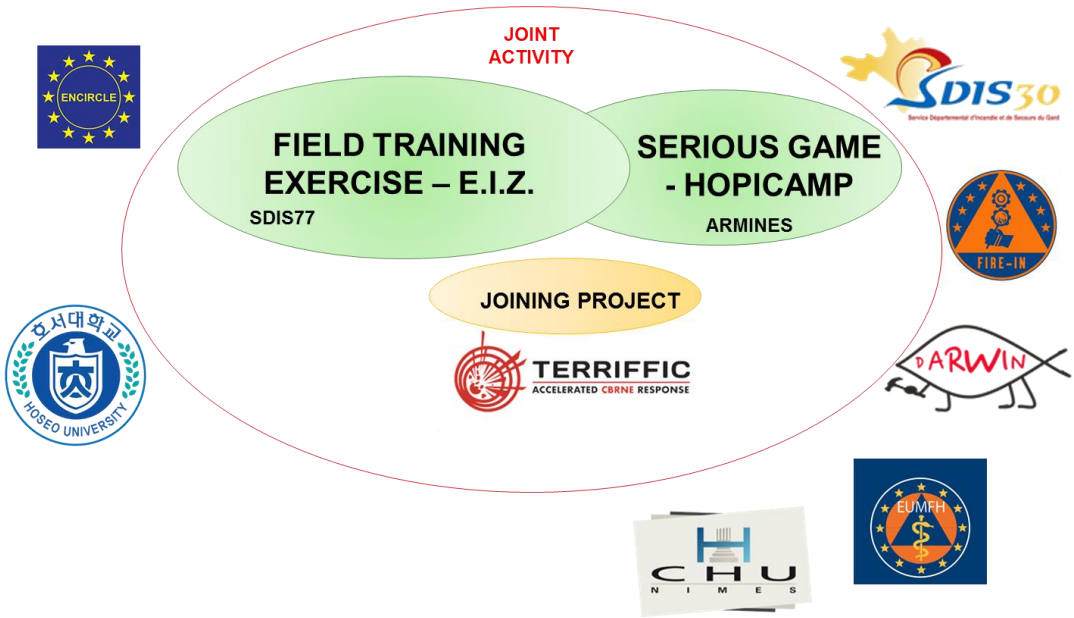
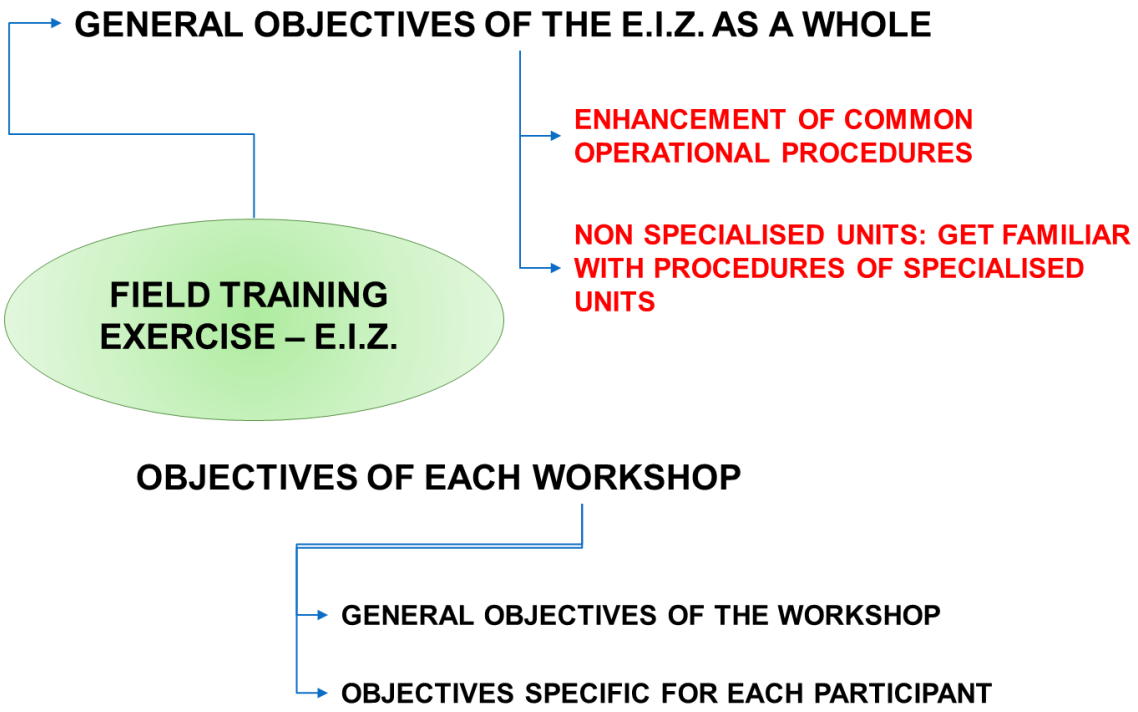
Moreover, various projects were invited to attend the JA as observers:



1.3.OBJECTIVES, EXPECTED RESULTS & EVALUATION CRITERIA

The objectives of the field training exercise (EIZ) were as follows:



The general objectives of each workshop were the following:

WORKSHOP	GENERAL OBJECTIVES
EXCLUSION AREA (ZEX)	« First hour » crisis management: situation analysis, coordination of non specialized first responders, doubt removal, deployment of CBRN assets.
POPULATION MANAGEMENT IN CONTAMINATED AREA	Ensure the population management and the first reponders' safety during a CBRN-E event: sorting, victims gathering point (PRV), population gathering point (PRI), thorough decontamination..
MULTI-DISCIPLINARY CONNECTING ZONE	Protecting population and first responders, preventing contamination transfer. Coordination with the first connecting zone.
COMMAND & CONTROL (C2)	Coordination and information sharing between commanders for the CBRN-E crisis management.
TRANSIT POINT	Organisation and management of the transit point.
HEALTH FACILITIES (ETS)	Testing of the multi-disciplinary coordination within a health facility during a CBRN-E event.

The evaluation criteria were classified by SGZDS IDF; no communication about these criteria were allowed.

The objectives and evaluation criteria for HOPICAMP were the following (G. DUSSERRE?)

The objectives for TERRIFFIC project were the following:

- SPECIFIC OBJECTIVES

- Test of indoor operational conditions of the robot : steps, doors, navigation in unknown environment

- Navigation & first situation awareness with an outdoor drone

- Extension of communication capabilities via relay from drone to robot

- Coordination between TERRIFFIC team & SDIS77 HAZMAT team

The evaluation criteria for TERRIFFIC project were:

- EVALUATION CRITERIA

- The reconnaissance & mapping of a hazardous radiological area is carried out (in buildings / outside) successfully;

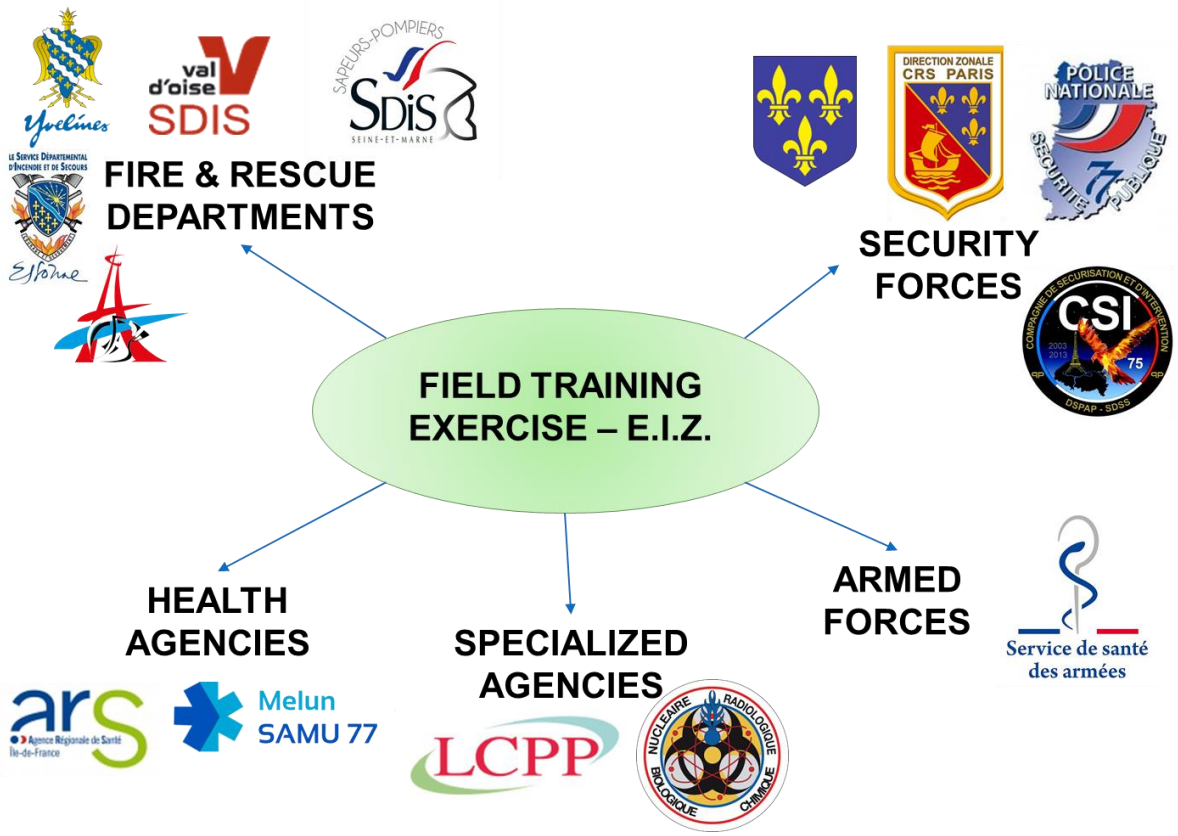
- Data exchange between drones & robot is operational;

- SDIS77 HAZMAT team can use data from TERRIFFIC team in order to carry out assessment & threat reduction.

1.4.ROLES

Different roles were identified:

- Exercise director: in charge of preparation, evaluation & follow-up: SGZDS IDF
- Adviser to exercise director : CNCMFE
- Host & Logistic support team : SDIS77
- Players :



1.5.THE SCENARIO

- A TERRORIST ATTACK OCCURED IN THE CINEMA « ARMAGUEDDON » IN GURCY-LE-CHATEL
- ACCORDING TO FIRST SYMPTOMS, A NERVE AGENT COULD HAVE BEEN RELEASED
- ASSETS OF CONTINGENCY PLAN (« PLAN ROUGE NRBC ») ARE DEPLOYED
- REINFORCEMENTS FROM ALL DEFENSE & SECURITY ZONE ARE EXPECTED; « FIRST HOUR » CRISIS MANAGEMENT CRITICAL

1.6.LOGISTIC REQUIREMENTS

All logistic requirements for the JA were provided by SDIS77 training centre.

Concerning eNOTICE:

- Conference rooms, lunches & coffee breaks were provided by SDIS77 training centre;
- Due to the size of the EIZ, no accommodation was available within the training centre. eNOTICE observers & projects were accommodated in various hotels in Provins; SDIS77 provided the shuttle service.

1.7.COMMUNICATION STRATEGY

- Internal communication

All participant were given a booklet with the description of the various phases, the logistic issues, as well as security instruction.
eNOTICE observers received an English version of this booklet.
Bavo, do you think it is relevant to join this booklet here?

- External communication

External communication was under the responsibility of SGZDS IDF. No other participant was allowed to issue communication assets outside the training centre.

2. ORGANISATION

2.1.Agenda of the JA

DATE	TIME	EVENT
Tuesday 21/05	09h-12h	CHECK-IN HOTELS PROVINS DEPLOYMENT & TESTING OF HOPICAMP & TERRIFFIC ASSETS
	13h30	SHUTTLE HOTELS - TRAINING CENTRE
	14h	WELCOME COFFEE
	14h - 18h	eNOTICE PROJECT MEETING DEPLOYMENT & TESTING OF HOPICAMP & TERRIFFIC ASSETS
	18h - 19h	EXCHANGES WITH ENCIRCLE
	19h	WELCOME WORD BY SDIS77 CMDR
	19h30	DINNER & EXCHANGES WITH STAFF
	23h	SHUTTLE TRAINING CENTRE - HOTELS

eNOTICE project meeting agenda - Tuesday 21/05

TIME	TOPIC	Lead
14:00 - 16:00	Check-in Logistic & accomodation issues	SDIS77
16:00 - 16:45	news from the project coordinator (feedback & lessons learnt from the financial and periodic reporting? Interschutz Hannover, ...)	UCL
16:45 -17:00	JA FDDO	FDDO
17:00 - 18:00	Relations/interfacing with other networks	VESTA & UPB - all
18:00 - 18:30 or 18:30 - 19:00	Exchanges with ENCIRCLE project - questionnaire	UCL

DATE	TIME	EVENT
Wednesday 22/05	08h	SHUTTLE HOTELS - TRAINING CENTRE
	08h30 - 09h00	COFFEE - GENERAL BRIEFING & SECURITY ISSUES
	09h00 - 09h30	WELCOME WORD - BRIEFING FOR THE PLAYERS OF THE FIELD TRAINING EXERCISE
	09h30 - 11h	OVERALL PRESENTATION - JOINT ACTIVITY (EIZ + HOPICAMP) INVITED PROJETS: TERRIFFIC, ENCIRCLE (SDIS77) - DARWIN, FIRE-IN, EUMFH (ARMINES)
	11h - 12h	VISIT OF THE TRAINING AREAS & WORKSHOPS
	12h - 14h	LUNCH
	14h - 18h	PREPARATION OF FIELD EXERCISE & SERIOUS GAME (separate workshops - Mechanisation) • Exclusion area • Transit point • C2 area • Health facilities • Multidisciplinary connecting zone • Population management in contaminated area • HOPICAMP project • TERRIFFIC project
	18h30	SHUTTLE TRAINING CENTRE - HOTELS
	19h15 - 23h	Medieval city tour + cocktail in Provins

DATE	TIME	EVENT
Thursday 23/05	08h15	SHUTTLE HOTELS - TRAINING CENTRE
	09h - 12h	FIELD TRAINING (directed game) HOPICAMP PROJECT TERRIFFIC PROJECT
	12h - 14h	LUNCH
	14h - 18h15	HOT DEBRIEFING eNOTICE PROJECT MEETING
	18h15	SHUTTLE TRAINING CENTRE - HOTELS

eNOTICE project meeting agenda - Tuesday 23/05

TIME	TOPIC	Lead
14:00 - 14:30	Hot debriefing of the JA - « tour de table »	SDIS77 - VESTA
14:30 - 15:00	Update roster/catalogue + label: where we stand + next steps	UNITOV
15:00 - 15:30	JA WMP	WMP
15:30 - 16:00	Coffee break	
16:00 - 16:45	Continuous improvement of the sustainability: where we stand + next steps	VESTA
16:45 - 17:15	JA METU	METU
17:15 - 18:15	Further development of the ECC	UPB

DATE	TIME	EVENT
Friday 24/05	08h	SHUTTLE HOTELS - TRAINING CENTRE
	08h30 - 12h	IN-DEPTH DEBRIEFING eNOTICE PROJECT MEETING
	12h - 14h	LUNCH & check-out

eNOTICE project meeting agenda - Friday 24/05

TIME	TOPIC	Lead
08:30 - 09:30	In depth debriefing (World café), lessons learnt & follow-up	SDIS77 - VESTA
09:30 - 10:00	Coffee break	VESTA
10:00 - 10:45	Discussion on the templates + JA reporting Rome, Vyskov, Gurcy, UK + lessons learnt for all	
10:45 - 11:30	Continuous improvement of the templates + Discussion on the (use of the) templates	VESTA - UNITOV
11:45 - 12:00	Check-out (if needed)	SDIS77

Comments on the agenda:

As the eNOTICE observers and invited projects were accommodated in Provins (20km from the training centre), shuttle delays had an impact on the scheduled agenda. On the other hand, the touristic opportunities of the city of Provins were appreciated by the eNOTICE observers & the invited projects.

2.2.Interaction between eNOTICE observers and the JA

The eNOTICE observers were guided by a team of five English-speaking officers. The missions of this liaison team were:

- Guide the eNOTICE observers across the training;
- Ensure that the eNOTICE observers reached the designated observation points according to schedule;
- Answer any question concerning the EIZ, tactics and doctrines displayed by the participants;
- Ensure the security or the NOTICE observers.

The liaison team also helped to improve interactions between eNOTICE consortium membres, exercise director team, and joining projects.
All eNOTICE observers, joining projects, as well as the liaison officers, wore specific jackets allowing them to be identified as related to the eNOTICE project. This helped a lot in ensuring visibility and security during the JA.

The role of the eNOTICE observers were clearly definied by CAMPUS VESTA, using a lesson learnt from a previous JA:

- ALWAYS WEAR YOUR e-NOTICE VEST
- STAY WITH YOUR LIAISON OFFICERS & FOLLOW THEIR INSTRUCTIONS
- BEFORE TAKING PICTURES PLEASE REFER TO YOUR LIAISON OFFICERS
- DO NOT DISTURB OR INTERVENE IN THE EXERCISE
- REAL EMERGENCY: REPORT TO YOUR LIAISON OFFICER

A slot in the agenda was dedicated to an exchange between the eNOTICE observers and the exercise director team. Because of the language issue and the lack of preparation, this exchange phase brought no added value.

Because of the presence of high-ranking political authorities, the eNOTICE observers were not able to attend the first (exclusion area) and the last (command & control) workshops.

2.3.Interaction between JA and TERRIFFIC

The exercise director (SGZDS IDF) refused to modify the scenario in order to integrate the TERRIFFIC project in the main scenario. SDIS77 had to propose a parallel scenario specifically for TERRIFFIC, without any interference with the EIZ; this was noted by eNOTICE observers. Questions were raised about the relevance and the interest of TERRIFFIC project within the JA.

3. CONCLUSION

- Lessons learnt from previous JAs
- A real added value : the liaison officers
- The VIPs problem
- Accomodation in Provins: added value or caveat?
- Integration of research project in a scenario which is not managed by an eNOTICE consortium member.

Annex 4: List of all questions used by the observers during the Gurcy JA.

1. Is civil-military cooperation (CIMIC) desirable in the CBRN TC network? What advantage and what challenges do you see for the efficient CIMIC?

2. What are the mechanisms for improvement of:
- National cooperation between actors?
- Cooperation between national civil and military actors?
- Cross-border cooperation?
- Harmonisation of training?

3. Did the General Information template provided you all the information you needed to take part of this JA? If NO, what kind of information were missing according to your opinion?

4. Which aspects of the observed exercise would you like to bee see highlighted on the eNOTICE web-based platform?

5. Which information about the JA would you like to have easy access to electronically?

6. Which information about the different parties participating in the JA would you like to see on the eNOTICE web-based platform?

7. For you individually and for your organisation – how do you practically see the successful collaboration with CBRN TC network and its members?

8. For the perspectives of you organisation and you individually – what are your expectations from the network of CBRN TC?

9. What would be an example of a very concrete request you would like to address as a priority to the CBRN TC network?

10. During your past experience, have you organized or took part to the organization of CBRNE exercises? If YES: use need/look for guidelines and templates of the organization of a CBRNE exercise?

11. Did you know that eNOTICE developed a methodology and templates for the preparation, organization, evaluation and follow up of JA's, that are available on the project website?

12. Which of the first three information concerning a CBRN TC capabilities that you would like to see highlighted on a web portal

13. The workload for the organisation of a eNOTICE JA with respect to that for the organization of similar activity organized by your TC is:
14. As past, present or future organizer of a JA, how you evaluate the eNOTICE methodology and templates for:

    Phase Easy to use:

    Level of detail:

    Redundant with own templates:

    Useful:

    Needs improvement

        Preparation:

        Organisation:

        Evaluation and debriefing:

        Follow-up:

15. Did the general information template provided you all the information you needed to take part of the JA?

16. What would be the selection criteria for you to choose a TC who could hos your exercise?

17. From the perspectives of you organisation and you individually – what are your expectations from the network of CBRN TC?

18. What would be an example of very concrete request you would like to address as a priority to the CBRN TC network?

19. What do I take home?

20. Does this exercise meet my expectations? If not, why?

Annex 5: Protocol for Observers

Guiding documents

DOCUMENT 1: eNOTICE: Context and objectives
DOCUMENT 2: Why this protocol for observers was created?
DOCUMENT 3: Pre-exercise briefing.
DOCUMENT 4: Exercise commandments for the observer.
DOCUMENT 5: Checklist for the hosting organisation / exercise team.

eNOTICE: Context and Objectives

The objective of the eNOTICE project is to build a dynamic, functional and sustainable European network of CBRN Training Centres, testing and demonstration sites (CBRN TC), aiming at enhanced capacity building in training and users-driven innovation and research, based on well-identified needs.
To set up such a network that is both efficient and effective in meeting the needs of different security actors, several lines of action will be followed within the five-year timeframe of eNOTICE in order to develop a network that will be viable, attractive as well as sustainable. The work programme proposes three lines of actions:

1. Establish and maintain a roster of capabilities and facilities;
2. Organise the best way to share expertise;
3. Plan to pool and share resources with a view to optimise investments.

One of the key activities within eNOTICE to achieve line of action two is the organisation of Joint Activities (JA). JA's can be defined as exercises for first responders or civil protection practitioners organised by CBRN TC's as part of their regular educational or training activities, opened up to external stakeholders (like academics), which allows for the activity to be combined with tests, validations or demonstrations.
As for working in a safe environment, a field exercise is the closest to real-life as you can get. This real-life setting creates an extra dimension to the exercise, often not realised by academics. For example, academics can develop a firefighter robot but when tested by a practitioner, the robot fails the waterproof test.
The eNOTICE Joint Activities can be seen as show cases to demonstrate the role, contribution and added value of the TCs beyond their traditional activities, in terms of user driven R&D, enhanced preparedness, improved training capacity and a community build-up.

Why this protocol for observers was elaborated? Input for the report.

The first JA was in Gurcy (FR), December 2017 (full report in D4.2). For the feedback on this JA, two types of evaluation were prepared: a hot and in-depth debriefing. The hot debriefing took place right after the exercise, in the presence of the practitioners. The in-depth debriefing was prepared, based on a list of questions meant to structure the discussions during the project meetings. From these two debriefings, feedback could be obtained about the exercise. The main points of improvements –relevant for observers- can be summarised as follows:

- A clear briefing with sufficient explanation on the exercise, the context, objectives and plan are considered imperative;
- A real-life exercise rather than a training setting is to be preferred as a learning opportunity, especially if non-practitioners, such as academics are invited and if the goal is to give them an understanding of first response practices.

The second JA was in Nîmes (FR), January 2018 (full report in D4.3). Immediately after the exercise, a hot debriefing was set up. All key persons had 10 minutes to explain their role and actions during the exercise, their overall feeling about their action (or lack of action) and their proposal of improvement. During this JA, all participants attended the exercise as observer. It was useful to clarify, beforehand, the consistency of the mission of each observer, his level of confidentiality and the form the expected rendering. All observers appreciated the relevant "time management". For instance, there was decided to downscale the duration by a factor of 10 (40 minutes in operation lasted for 4 minutes in the exercise). The main points of improvements –relevant for observers- can be summarised as follows:

- "More information about area of responsibility of participants of the exercise and lines of communication between them."
- "I recommend consider standardisation procedures or guidelines, rules, etc."
- "I think there is a need for standardisation of exercise practices. Without standardisation, it will be very hard to follow or to understand what is happening."
- "…there was nog formal debriefing session eNOTICE and invited observers which was a missed opportunity."
- "Language barrier made interaction before rather difficult."

The third JA was organized by UCL in Peutie (BE), June 2018 (full report in D4.3). On the day of the exercise on-site hot wash debriefing and Q&A sessions with attendees right after each part of the demo were made to catch immediate reactions of the observers. On the day following the exercise a global two-hour debriefing with all platers representatives was organised.
Feedback obtained during and after the JA in Gurcy (FR), May 2019 is integrated in this document.

Pre-exercise briefing

In a pre-exercise briefing, the most important points need to be covered and understood by the observers.

- Information about the exercise:
  - Objectives of the exercise;
  - Profile of participants;
  - Summary scenario;
  - Evaluation criteria for the participants.
- Context of the exercise;
- Role of the observer;
- Information about the hosting EU project and joining project – if relevant (eNOTICE specific)
- Introduction of the exercise project team (who is who?)
- Rules of behaviour
- Communications during the exercise

} Safety Briefing

WHY?

"Because of the lack of a briefing, some observers noted they felt lost…" (eNOTICE, 2018)

"There were little to no demarcation ribbons that marked the zone in which…" (eNOTICE, 2018)

Feedback obtained in previous Joint Activities

Information about the exercise

- Objectives of the exercise: The main objective of the exercise should be clear for the observers. If observers were given the task to only observe, for example, the fire department, both main as objectives for the fire department should be given.
- Profile of the participants: Any field-exercise can be multiagency, mostly fire/medical/police. The profile of these participants has to be clear to all observers. Tasks performed by each agency should be explained (may not be the same as in country of origin of observer).
- Summary scenario: A summary of the scenario is given to the observers, so they have an idea about what is happening in the exercise.
- Evaluation criteria for the participants: Each observer receives an observation form. On this form, there are five questions. Two standard questions, same for everyone, and three eNOTICE related questions. These three questions are different for each observer.

Role of the observers

Is some kind of participation (other from simply observing) required from the observers. If so, which one, what time and according to which modalities.

Context of the exercise

Outline the context of this exercise so observers can think about the what and why.

- Is this an annual or one-time exercise?
- Is this a mandatory (for example Seveso) exercise?
- Participants emergency services in exercise: Why are they in this exercise?

Information about the hosting EU project and joining project – if relevant (eNOTICE specific)

The observers must receive information about the EU project hosting this exercise and of all EU projects involved.

Introduction of the exercise control team

Observers should be aware about who-is-who in the exercise project team. A list of all participants can be handed out to all observers.

Safety Briefing

Safety is everyone's concern. If a real-world safety issue occurs during the exercise, this should be brought to the attention of the safety controller immediately. This controller will determinate if a real-world safety issue warrants a pause or stop of the exercise. [2]
When dealing with a real-world case use a code word in every communication. For example, CODE BLUE can be used, in several countries this code is used for a cardiac- or respiratory arrest.[3] An emergency care provider will evaluate the participant and deals with this case appropriate to the local policy.
Every observer should wear appropriate personal protective equipment, relevant to the area of observation and to any weather conditions.
Observers need to stay in the observation's areas, only going out of them with guidance of an exercise controller.
Observers receives an ICE (In Case of an Emergency) card and need to keep this with them. On this ICE card, the numbers of the exercise emergency contact point can be found – possibly with a small map of the area. The ICE card can be implemented in the identification badge.
Every observer should receive a tabard –or something equal- to identify them as such.

[2] (Sigma Nursing Repository - Ebola Sim Toolkit, 2016)
[3] (Hospital Association of Southern California, 2015)

EXERCISE COMMANDMENTS FOR THE OBSERVER

Act and stay safe at any time.

Stay in the designated observation area.

Do not disturb or intervene in the exercise.

Follow the instructions of the liaison officers.

Wear the identification badge given at any time.

Wear your safety tabard at any time.

Wear your personal protection equipment when needed.

Report any real-world safety issue to the exercise safety controller – use the given code.

Checklist for the hosting organisation / exercise team.

This practical guide has been drawn up as a checklist and aims to give the host TC a helping hand in preparing for observers to attend an exercise.

- Make up the profile of participants;
- List with who is who;
- Code word for a real-life emergency;
- Summary of the scenario;
- Outline the context;
- Info about the EU projects - host as other involved;
- Badge + registration (in/out);
- Provide observation areas;
- Observers need to wear a tabard – with preferably printed ‘observer’ on it. Personal protective equipment if needed;
- Observers need to stay focused on the task given – Instruct them to fill in the question form, keep them occupied with the exercise itself;
- Make sure there are not too many observers on one place at the time;
- Observers need to attend the hot wash debriefing to give first impressions.
- Inform the observers about the digital capture policy.
- Inform all actors in the exercise that there is an observer programme, and what to expect from it.
- Collect all this data in a ‘Participant & Observer’s handbook’.
- Appoint liaison officers to guide the group of observers.