ENCIRCLE
EuropeaN Cbrn Innovation for the maRket CLustEr

D4.3 ENCIRCLE Cluster Discussions Y3

Dissemination level

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- European Commission

- ENCIRCLE Consortium

Executive Summary

The Deliverable D4-3 presented herein provides a summary of the discussions, that can be publically disseminated on the ENCIRCLE Project covering the period October 2018 to September 2019

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1 Introduction

The main goal of the ENCIRCLE project is to strengthen the European industry to help create the tools and strategies needed to consolidate the EU CBRN communities of suppliers and practitioners in order to strengthen the field of CBRN safety, security and defence in the European Union.

In order to achieve this goal an innovative approach based on the five objectives aimed at prompting the innovation and business development, and filling market gaps in the project timeframe was proposed. The project objectives include:

- Create an open and neutral EU CBRN cluster,

- Provide a sustainable and flexible vision and roadmap for the development of the European CBRN market and innovations,

- Provide integration with platforms (systems, tools, services, products) by proposing standardized interfaces and future EU standards to integrate CBRN technologies and innovations developed from the Part b projects,

- Support CBRN safety, security and defence commercial and market services,

- Improve and facilitate European CBRN dissemination and exploitation.

The purpose of this document is to summarise the discussion to date on the ENCIRCLE Project covering the period October 2018 to September 2019

2   ENCIRCLE Discussions

The ENCIRCLE project has been running since the 10th March 2017 and the following sections summarise the discussion that have occurred between the period October 2018 to September 2019.

2.1   INNOVATION PLAN AND DISSEMINATION

Part of the ENCIRCLE project's objective is to improve EU resilience to CBRN threats and attacks. As such details of needs and gaps from previous CBRN related projects were gathered, assessed and collated to create a current view of what the CBRN community requires from industry to progress and improve response in the CBRN sphere. This in turn will foster innovation and lead to the creation of technologies that are genuinely required, and with the help of ENCIRCLE, those innovations will be successfully brought to market, creating a stronger EU presence in the CBRN marketplace.

2.1.1   Part B Project Update TERRIFFIC

The TERRIFFIC project brings together 10 European organisations, all working together to deliver an important step change in the effectiveness of first responders during the first hours of a Radiological, Nuclear, explosive (RNe) incident.
This will lead to reduced response times, less health and safety risks for the response teams and less human intervention in the operation, due to a higher number of automated processes and extended mobile detection capabilities.
The individual technological components needed for a significant improvement in this respect have progressively emerged over the past decade and include new detectors, drones, robots, dispersion models, information management and decision support software (DSS) packages.
The dynamically updated information made available by the TERRIFFIC system and its components will enable the response team to intervene immediately, as adequate safety measures can be rapidly implemented. It is anticipated that the TERRIFFIC solutions will have a significant impact for CBRNe responders in the early hours of an incident.
Just over one year into the project, some of the many questions that have been addressed with practitioners include:

- How can we better optimise the intervention of practitioners during the first 30 minutes after an RNe incident?

- How can we limit the exposure of first responders?

- How can we better anticipate the evolution of the hazard flows?

As a result of the many discussions, we have been able to start defining the specifications of the TERRIFFIC system, as well as those of each of its components in terms of robustness, endurance, performance, but also the maintenance of operational capability.
In addition to numerous bi-lateral interviews, an interactive workshop was successfully held in Paris on 6th-7th November 2018 with a total of 30 participants. Bringing together experts, consortium members and CBRNe practitioners, the over-arching objective was to discuss practitioners' needs

during the first hours of an RNe incident and to define the specifications of the TERRIFFIC system, based on a set of pre-defined scenarios.

As a result of the workshop and subsequent development work, the first TERRIFFIC Trial – an initial assessment of the existing technologies in the TERRIFFIC components – was hosted by Lt. Col Denis Giordan and his team of firefighters from SDIS 73, in April 2019 in Chambéry, France. During the three-day assessment and training field trial, several radiation scenarios were utilised to challenge the components in both indoor and outdoor environments. This provided a strong baseline against which to evaluate the effectiveness and the potential of the various TERRIFFIC technologies – UAV, UGV, detectors, drone-mounted camera, Augmented Reality app and plume software modelling.

Against the background of these specifications, partners have worked hard to develop their respective technologies. The first working prototype of the beta handheld detector, able to detect beta contamination in a high gamma background, was available and functional during the first trial.

"*This is ahead of the initial schedule and the beta handheld detector even proved capable of discriminating the two different contamination sources tested in Chambéry*", explained Vincent Schoeff of the French Alternative Energies and Atomic Energy Commission (CEA).

Mike Griffin of the Luxembourg Institute of Science and Technology added: *"This was an excellent first trial. We were able to really test the version one AR system in a challenging environment and gained a lot of hugely useful learning, which we are applying into the v2 system."*

This first year has also been the opportunity to start working on the integration of the different components into an integrated System. In May 2019, AERACESS and Nexter Robotics participated in the eNotice trial at the SDIS77 training and education centre. Indoor and outdoors inspections using drones (AER Q800X/ NanoHawk) and robots (Nerva-XX) were performed and provided a good opportunity to test the communication relay capacity between the UAV and the UGV. A proof of concept of the integration of the CEA's miniaturised gamma camera (called nanopix) into the robot developed by Nexter was also successfully tested.

Following on from what was learnt during this first year of the project, the technical teams will of course continue to develop and evolve their technologies – both independently and as an integrated

system. Subsequent trials, with the ongoing involvement of practitioners, will help to ensure that TERRIFFIC can really make a difference to first responders involved in the initial response to a Radiological, Nuclear, explosive (RNe) incident.

Further information about the project is available from www.terriffic.eu

2.1.2   Part B Project Update EU-SENSE

EU-SENSE is a research and innovation project launched in May 2018 with time duration of 36 months. The crucial innovation of the project is the development of a novel network of chemical sensors consisting of heterogeneous sensor nodes supported with cutting-edge machine-learning and dispersion modelling.

In December 2018, the project entered the stage of sensor node development. The device is based on STM32F4 microcontroller, which is responsible for the configuration, supervision and operation of the sensor instruments, as well as performs the function of a bridge between the network controller and the actual sensors. The sensor node can operate with the following sensors:

- AIRSENSE **GDA-P + EC** (Electrochemical cell),
- AIRSENSE **GDA-P + PID** (Photoionization detector),
- **SRD** Metal oxide detector,
- Proengin **AP4C** Flame photometric detector.

The node configuration is stored on SD card. After the node startup, the device connects to the individual sensors, runs the measurements and starts receiving data. Every second, the data is collected, verified, preprocessed and transmitted to the network controller. The sensor node is able to wirelessly connect to the network of sensors controller as well as store the raw data on SD card.


1. **Figure 1 – Sensors used in EU-SENSE – AP4C, two GDA-P and SRD instruments**

In the next steps, the consortium will conduct a data fusion development that will include classification, identification, concentration estimation and alarming algorithms.

The work package 5 main objectives are to develop a solution for false alarm rate reduction based on machine learning of the environmental noise and to perform sensor measurements in various environments and prepare a database of sensors data. The consortium determined the schedule and the localization of the data collection. The laboratory and outdoor measurements will be performed in three iterations. The results of the sessions will be used for the sensor model development and the anomaly detection algorithms.

Because the measurement sessions are to be performed in Norway, the export license for the dual-use sensors is needed. The application has been already submitted to the Ministry of Entrepreneurship and Technology in Poland.

The first iteration of Situation Awareness Tool has been already implemented. The application has functional graphical user interface with sensor node visualization and map download mechanism. The Situation Awareness Tool database structure is already designed. The next step will be to integrate the SA Tool with computational tools for dispersion modelling and threat source estimation.
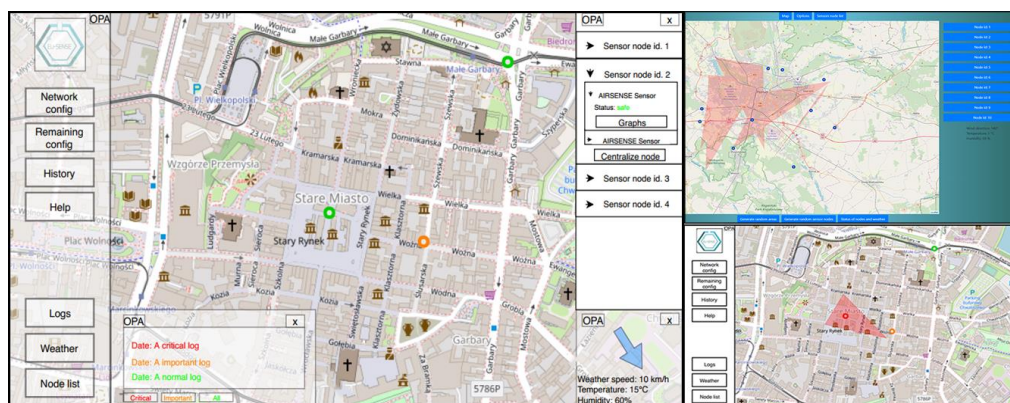
2. **Figure 2 – Early interface of Situational Awareness Tool**

Recently, the project coordinator (ITTI) raised the awareness about the EU-SENSE project, its innovations as well as highlighted the need to improve European CBRNe capabilities and cover existing technological gaps of first responders. These activities have been performed during the following events:

- 25 – 29 March 2019 – 13th Meeting of the Community of Users on Secure, Safe, Resilient Societies,
- 20 – 23 May 2019 – 3rd International Conference "CBRNE - Research & Innovation" in Nantes.
  In near future, the project coordinator will participate in the following events in order to demonstrate the EU-SENSE prototypes:

- 24 – 26 September 2019 – 13th CBRNe Symposium in Malmö,
- 12 – 14 November 2019 - CBRN Symposium in Farnborough – sponsored by ENCIRCLE

Interactions and discussions with the ENCIRCLE project have involved the updating of the business maturity model, an initial IR assessment, inclusion of the project in the ENCIRCLE catalogue and promotion of the project at workshops and conferences.

2.1.3   Part B Project Update COSMIC

The COSMIC project started in October 2018 AND responds to the call for improved detection capabilities, and the project will be focussing on the gap in the security flow of container and inspection that can be exploited to smuggle CBRNe material. The project is progressing according to the plan with 8 deliverables submitted on time.

The COSMIC project develops 6 CBRNE sensors and system analytics software as described below

The sensors are:

- NA-NOSE for chemical and biological

- DMA-MS and GC-DMA- F-DMA for Chemical, Biological and Explosives

- Muon scanner for shielded Radioactive and Nuclear

- PDA for Biological in liquids and solids

- ES-CR-DMA-CPC for virus detection

- GC-DMA-F-DMA for explosives primary detection.

COSMIC has completed defining the requirements and specifications for each one of the sensors and has completed an extensive process to determine the CBRNE threat materials that need to be supported by each one of the sensors and that will be used along the project development and the field trials. The technology developers have purchased the simulants of the CBRNE materials and have started to test them in their development labs. To date the project has held two consortium meetings: in Rotterdam (December 2018) and in Tel Aviv (June 2019).

Due to the complexity of the field trials in CBRNE materials, preparations have begun early in order to verify that all the appropriate processes, procedures and licenses will be in place.

During the meetings the consortium have also visited the field tests sites where COSMIC will conduct the trials in the Rotterdam sea port and in the Haifa sea port.

For further information COSMIC has designed and launched the project website: https://www.cosmic-cbrne.eu/ and has prepared a marketing package that includes a presentation, brochures of the project and all the sensors, and a video clip of the project.

Interactions and discussions with the ENCIRCLE project have involved the baselining of the business maturity model, inclusion of the project in the catalogue and promotion of the project at workshops and conferences.

COSMIC launched a new video clip that explains the technology concept of the project.

You can find it at the "home page" or "Technology" page (includes also brochures of all COSMCI sensors and system analytics) of COSMIC :

Home page : https://www.cosmic-cbrne.eu/

Technology Page : https://www.cosmic-cbrne.eu/technology/

2.1.4   2019 Part B Call Topics

This list of requirements was presented and agreed with the European Commission for publication under the Part B 2019 call topics, as referred to in the SEC-05-DRS-2019-2020: Chemical, biological, radiological and nuclear cluster topic description. This provided the basis for preparing the research and innovation actions (RIA) aimed at research and development of novel CBRN technologies and innovation, leading to solutions for the gaps identified in the ENCIRCLE dynamic catalogue.

2.1.5   2020 Part B Call Topics

The work on the preparation of the list of topics, which will be published in 2020 call in the topic SU-DRS04-2019-2020: Chemical, biological, radiological and nuclear cluster, has begun after opening of 2019 call. The work on evaluation of the gaps in the catalogue have started from the collection of the available information regarding CBRNe projects carried out within various EU programmes. In addition, we have attempted to identify as many as possible EU companies which deliver products dedicated for the CBRNe market. Both activities will provide an important input for analysis of the gaps. A substantial amount of funds has been dedicated to CBRNe related projects and we believe that at least some of the gaps have been closed by their outcomes. However, we have already indicated very important issue, which is the access to the results of the projects. This is limiting factor in evaluation of the possibility of the gaps closure by the projects. Additionally, companies providing CBRNe related solutions introduce new products, which close existing gaps. The work on linking needs and gaps identified in ENCIRCLE with the solutions offered by CBRNe companies continues.

The work on needs and gaps analysis with result in the updated list of the needs and gaps, which will be later discussed with the networks of practitioners (FIRE-IN, NO FEAR) as well as practitioners supporting ENCIRCLE. Finally, generated list of the topics will be consulted with European Commission.
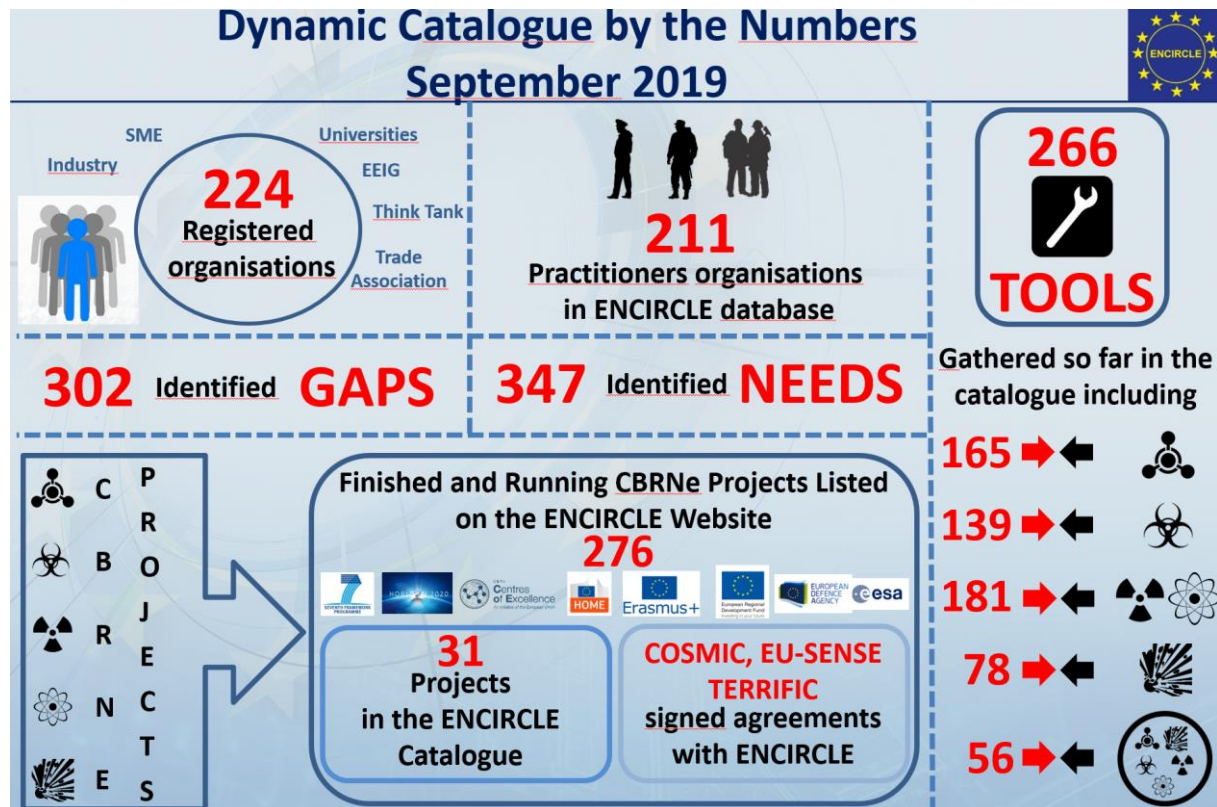
2.1.6   ENCIRCLE Project Site

The ENCIRCLE project site has been continued to be updated and can be found here: http://encircle-cbrn.eu/

2.1.7   Dynamic Catalogue

The Encircle Dynamic catalogue has continued development and has steadily grown and currently the catalogue contains

Dynamic Catalogue by the Numbers
September 2019

The ENCIRCLE Network and Groups forum activities statistics are summarized below.

The Network and Groups part of the catalogue include those forums that have been created by the ENCIRCLE partners but also the cooperating projects from CBRN Cluster Part b call. Active forums that should be of interest for the CBRN community include

Under the General Discussion forum

- Collection of standards for CBRNe

- Results of the integration and interoperability surveys

Monthly news feed

Question Box

- New threats (note this is unclassified)

- Procurement Opportunities

- Urgent Operational needs

CBRN Market analysis Report Discussion Board

To register simply open directly the ENCIRCLE Dynamic Catalogue home page:
https://www.encircle.eu/ or access it via public website of ENCIRCLE http://encircle-cbrn.eu/catalogue/, select which of the communities you fall under and complete the organization, points of contact, and functions fields, electronically sign the Letter of Intent (LOI by ticking the box when prompted), and submit your request. Once you have completed this your request will be sent to the project management board for approval.

In 2018/2019 the summary of the changes in the catalogue were following (see D3.5)
1- Change in the LOI process to ease the registration in the encircle communities process
2- ENCIRCLE Network and Groups functionality (available since March 2018)
3- Enabling of possibility to add several standards for the tools and projects (available since June 2018)
4- ENCIRCLE Catalogue GDPR compliance checking completed internally by the consortium
5- Integration capabilities function refinement of tools by categories (since October 2018)

Since 2019, the mains modifications on the catalogue consisted in the opening of a space for Innovation watch. As shown in the screen shoot below, a new entry has been implemented in the catalogue since May 2019 to post innovation reports.
The innovation reports are directly produced by the consortium member using the Risk Radar innovation watch tool provided by EU-VRI partner and accessible through the forum to the entire consortium at the moment. The consortium can then perform a research with the tool and post the produced report on the catalogue to make it accessible/visible for the two communities.

A second evolution in 2019 of the ENCIRCLE catalogue was the elaboration of a restricted access profile for consulting companies in the CBRNe field which do not, by definition, belong to any of the two communities. Consequently the consulting companies in the CBRN field only have access to the "Network and Group" part of the ENCIRCLE Dynamic Catalogue, and are identified as such there.

2.1.8   Innovation Watch

The tool "RiskRadar" has been customized for the CBRN domain, and is available to monitor different resource streams for content from the main solution providers, main associations or clusters that might be of interest.
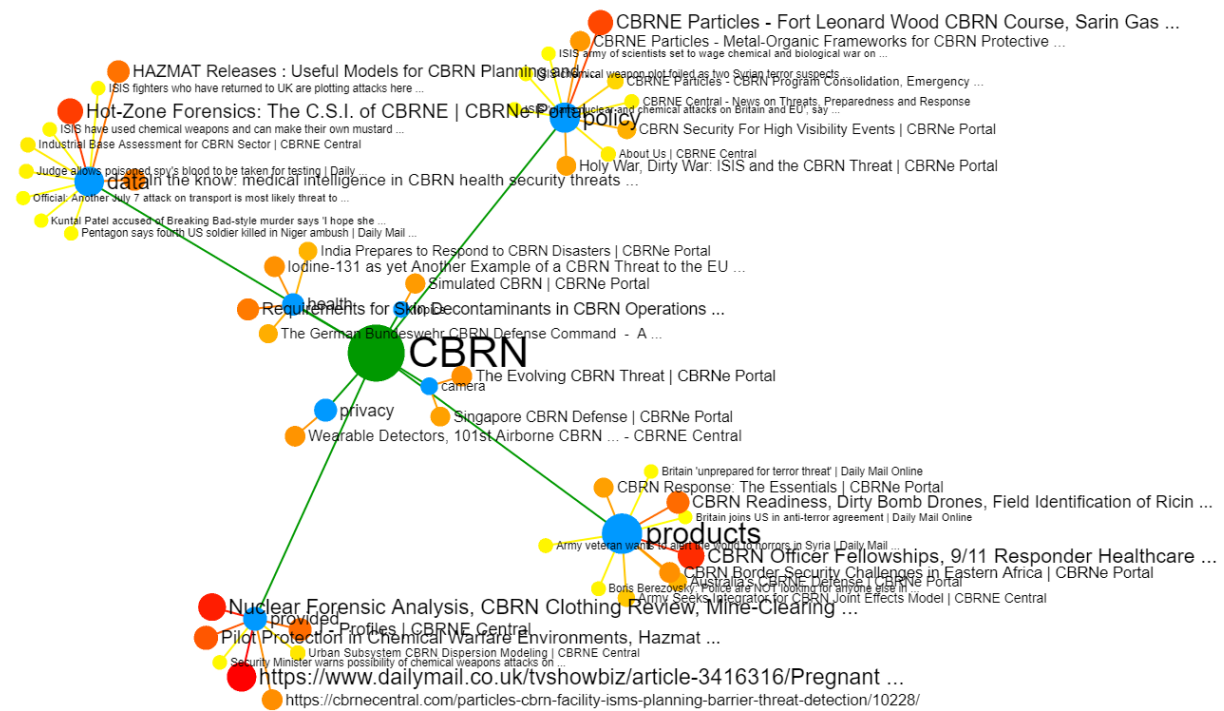
2.2   ENCIRCLE WORKSHOPS AND EVENTS – YEAR 3

The following events and workshops have been supported or arranged by ENCIRCLE over the last year include

2.2.1   Conferences and events

The following conferences and events were supported over the last year

The 4th International Symposium on Development of CBRN Protection Capabilities, Berlin, September 3-5, 2018.

SRE2018, December 5-6, 2018, Brussels, Belgium
- ENCIRCLE stand promoting the ENCIRCLE project and catalogue and the TERRIFIC, EU-SENSE and COSMIC projects

ADS CBRN UK, meeting December 2018
- Promotion of the ENCIRCLE Catalogue via face to face meeting and webex

CBRN Innovation Nantes May 2019
- Workshop on Integration and Interoperability, and stand at Nantes to promote project and the Part B projects

2.2.2 Practitioner Networks, Projects and Community of Users

Community of Users
- December 2018 - Supported the Civil Military Cooperation in CBRNe session including presenting results from the first market analysis. Findings from the session can be found on the COU site

- March 2019 - Supported Panels on standardisation on CBRN-E and New actions in CBRN research. Findings from the session can be found on the COU site

FIRE-IN
- 2nd workshop of FIRE-IN TWG CBRNE "Emergencies related to the outbreak of highly contagious diseases and the threat of abuse of the situation by specific groups", 12-14.02.2019, Prague, Czech Republic.

- May 2019 - Supported 2nd annual Dissemination workshop

IN-PREP
- Particpation in Nov 2018 - Participated to the disaster training TTX as observers . Provided information about ENCIRCLE and the Catalogue.

eNOTICE
- May 2019 - Questioners and surveys to gather information on Integration and interoperability/standards

TOXITRIAGE
- Questioners and surveys to gather information on Integration and interoperability/standards

- Attendance of TOXI Triage workshop and event 4th September

TERRIFFIC
- July 2019, Paris, supported their annual assembly meeting.

- ENCIRCLE project overview and discussion on standards and integration surveys

2.2.3 Training

CEPOL/ENFSI
- course on "forensic investigation in CBRN contaminated environment/terroristic attack" 26.02.-01.03.2019, Budapest, Hungary

2.2.4 Standards Initiatives

- CEN Workshop Trial Guidance Methodology (TGM), IAI & ADS participation for ENCIRCLE voice/reporting and in collaboration with DRIVER+ Project; aim is to achieve a CEN Workshop Agreement (CWA) as precursor to creating an EN Standard
- CEN Workshop Interoperability, As above, but ADS only participating for ENCIRCLE
- CEN Workshop Simulated Environment- As above but ADS only participating for ENCIRCLE
- ENCIRCLE and NO-FEAR have been collaborating on collecting standards in the CBRNe area - http://no-fearproject.eu/no-fear-collaboration-with-encircle-project/
- Discussion and agreement has been reached with STAIR4SECURITY to collaborate. The main objective of this project is to propose a collaborative platform as single entry point of information on the security sector coming mostly from research activities allowing a better governance of standardization needs in the Disaster Resilience and Chemical Biological Radiological Nuclear and Explosive (CBRN-E) sectors.

2.2.5 Other dissemination activities

- Third issue of ENCIRCLE magazine - available on project website
- Promoted the project and activities on the CIRCABC space for the H2020 SC7 Networks of Practitioners

2.2.6 Planned events for Year 4

A provisional list of activities for year 4 is as follows:

Event/Activity	Purpose and findings
The 13th CBRN Protection Symposium, Malmo September 2019	To promote the project, ENCIRCLE catalogue and presenting findings from Integration and Interoperability surveys
14th Community of users	Support Network of Practitioners

International CBRN Symposium, Farnborough, November 2019	To promote COSMIC, EU-SENSE, TERRIFIC and three other projects and hold a workshop to allow the projects to discuss their projects with a range of practitioners
ADS/CBRN UK hosted ENCIRCLE Workshop, 14th Nov 2019	To expose Part b CBRN Cluster Projects and up to 3 others to Practitioners/Users either as Workshop Delegates or as overlapping CBRN UK International CBRN Symposium delegates, thereby providing valuable exposure to the Projects and creating the opportunity for them to receive some good operational feedback
Continuation of CEN Workshops	To achieve CWA for conversion into Standards by March 2020

2.3   MARKET AND BUSINESS SUPPORT

2.3.1   Market analysis

The initial market analysis was completed as presented in the Impact report deliverable and the results were presented at the COU event in December 2018 and form inputs for the Integration and Interoperability surveys. The results are summarised here:

- A reasonably commonplace acknowledgement that capability gaps and needs within the CBRN market do exist;

- An acknowledgment of marked differences between the Military and Civilian (e.g. "First Responder") parts of the CBRN Market;

A copy of the Report can be accessed from the "CBRN Marketing" forum within the 'Networks & Groups' part of the ENCIRCLE Dynamic Catalogue and you are encouraged to comment on the findings via the forum

2.3.2   Business Models and Plans

The business plan maturity model which is being used to monitor TERRIFFIC, EU-SENSE and COSMIC has been reviewed and updated.

2.4   INTEGRATION AND TECHNICAL SUPPORT

2.4.1   Standards and Interfaces

Identifying and cataloging standards

The process of identifying and cataloging standards and interfaces has been continued. In this second phase different contacts with CBRNe organization and communities has been activated. A wide-ranging research both within the Encircle Catalogue and from other sources (i.e. standardization bodies, NATO or Joint Services Standards) has been conducted. Some interesting results came from the interface with the projects BroadWay and from the Kick-off Meeting of the CEN/WS on"*Semantic and syntactical interoperability for crisis and disaster management*"

Eight Nine different standards have been identified and catalogued in different CBRNe domains: detection, identification and monitoring, protection, information management, decontamination, communication and medical countermeasures. In addition, 7 different classes of "most appropriate communication interfaces for the future innovation" has been identified and proposed to Part B project coordinators

<u>Interfaces and interoperability surveys</u>

ENCIRCLE would like to provide advice to innovators on the types and standards they should consider in their development for their solutions to provide them better access to the market and solutions that will be more easily integrated into the civil protection market. As a first step an initial survey and workshop was been conducted with both the Practitioner Networks and the Technological community. The results of this first survey as well as a standards collection spreadsheet are available in then ENCIRCLE Catalogue Networks and Groups Forum (Discussions Group). The initial findings are as follows which we would like to review in the future with the wider community.

A survey was conducted with the practitioners to examine what should be implemented in the next few years for improved interoperability whether that be Technical or Operational. The response to the questionnaires has been limited and as such there is insufficient data for a hard conclusion or recommendation, but the results are summarised as follows
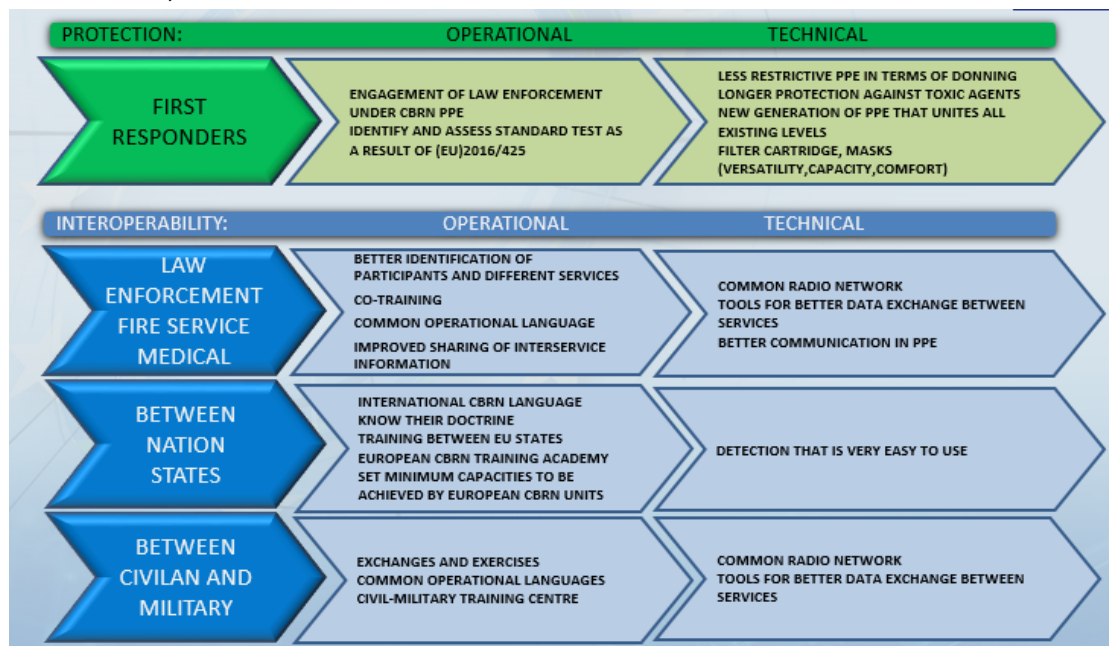
The more technological survey explored what should be the communication methods, protocols and user interfaces and display developers should consider in their project development. This is

especially important to allow better integration and to take advantage of digitisation and connectivity.

For detector and sensor communication Lan/WAN for wired and WLAN IEEE802-11 for wireless were the preferred choices, with additional interfaces suggested such as Power over Ethernet. It was also almost unanimously agreed that these interfaces should be security protected, although no common universal method is apparent from the results. The exception to the interface protection was for open networks for the public to provide information.
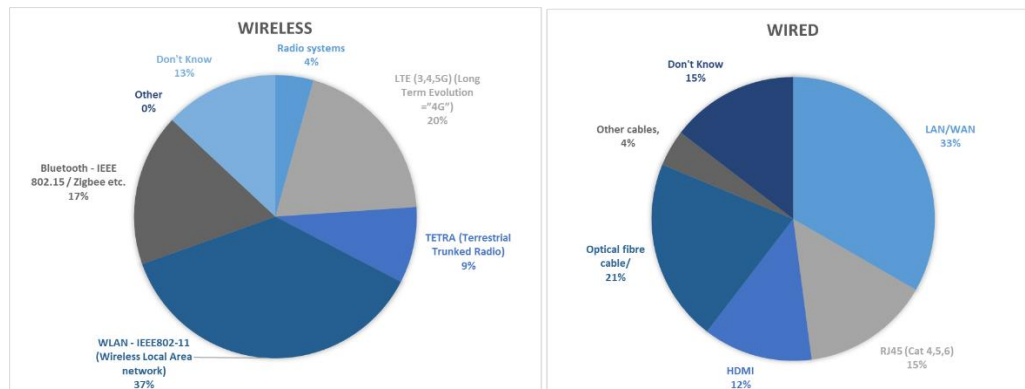
The results for whether there should be a specific CBRN protocols and format to provide CBRN real time information was less clear as the majority of the respondees simply did not know so this will require more assessment although NATO standards were suggested and the Sensor Observation Service OGC standard as well as XML.

Concerning the user interface and which data user interface types and display should be used for future applications. Web based user interfaces and graphical user interfaces were the primary data user types. Whilst the use of personal computers/laptops/tablets and mobile phones as the preferred display followed by the newer consumable technology smart watches and wearable displays using augmented reality. A key driver for all these user interface displays being they need to be mobile, rugged, useable with PPE and run on the lowest bandwidth reasonable possible

Finally a common question to both communities concerned whether there is a need for a common European Civil Protection symbology supported by commonly understood terminology to facilitate information exchange; promote common awareness of assets, hazards and vulnerabilities; support at-a-glance situational appreciation from map displays; and ultimately support collaborative and informed decision making. The overwhelming response from all responders to this question was yes providing they are clear and intuitive. It is considered that this is an important response that the standards organisation should take into account and there may be existing standards that can be drawn from such as NATO to save re-inventing the wheel

ENCIRCLE will be examining these results more fully and would welcome contribution and collaboration to examine this area further so that better guidance can be made to developers to

ensure better innovation uptake, interoperability and integration of new innovations.
Contributions can be made directly on the forum or by contacting the consortium directly

<u>Standards Organisation Participation</u>

ENCIRCLE partners are providing participation into the following specific CWAs that have been activated :

- CWA on Interoperability (CWA Int) – ADS CBRN UK
- CWA on Trial Guidance Methodology – TCA and ADS CBRN UK
- CWA Simulated Environment (CWA Sim) – ADS CBRN UK

In addition ENCIRCLE will be collaborating with Stair4Security

2.4.2   Integration Platforms and Human Factors

A technological questionnaire and survey of communication methods, protocols, user interfaces and display developers has been made. Those were presented, among other events, in CBRN Innovation Nantes and in Toxi-Triage in Mikkeli 22nd of May. The questionnaire has also been delivered to CBRN specialists in Finland and it has been available in ENCIRCLE webpages. The survey was closed by the end of July and it received 32 answers (see section 2.4.1).

The Human Factors questionnaire was also sent to various relevant EU and national projects, including the Italian CBRNP3 cluster. The questionnaire, published on the EU Survey platform, received 19 answers and was closed on August 20th, 2019. The responses were mostly from fire fighters, police officers, EMS and some other professionals, very experienced since the average of experience in the CBRN field is 11 years. A more detailed analysis of both surveys will be included in the next WP4 deliverable.

UCSC is engaging in collaboration with the PROACTIVE project (https://proactive-h2020.eu/) and is part of the PSAB – Practitioners Stakeholder Advisory Board and exploring other possible forms of collaboration.

2.4.3   Impact Policy and Exploitation

In order to establish bilateral support ENCIRCLE consortium has contacted the Coordinator of H2020 iProcureNet project (French Ministry of Interior). This project has started on 1st May 2019 and its goal is to build an European network of organisations centred on the procurement of security solutions. Further cooperation will advance when iProcureNet will be finishing its organisational phase.

A research initiative about the usability and functionality of the ENCIRCLE dynamic catalogue is being prepared. Within this activity two surveys for both practitioners and technology providers will be

prepared. The best form of the survey (placement, survey engine, sending requests for filling) will be discussed with project's coordinator.

In order to examine the potential improvements for the procurement processes organizational documents have been gathered. They are mainly public procurement law documents, but also European level documents. Chapters concerning security procurement will be extracted and discussed for potential improvements.

A key activity over the next period will concern the sustainability of the cluster and networks will be engaged