

DELIVERABLE D6.2

**REPORT FROM “X-treme Vision”: A JA TERROR
BASELINE TABLETOP SIMULATION EXERCISE AT
EUROPEAN LEVEL ON CROSS-SECTORAL
COLLABORATION IN THE RESPONSE TO A
BIOLOGICAL OR CHEMICAL TERROR ATTACK HELD
IN MADRID, 15th June 2023**



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Abbreviations

Abbreviation	Term Meaning
CECIS	Common Emergency Communication and Information System
CBRN-E	Chemical Biological Radio Nuclear and Explosives threats
DX.X	Deliverable X.X
DG ECHO	Directorate General European Civil Protection and Humanitarian Aid Operation
DG HOME	Directorate General of Internal Affairs
DG SANTÉ	Directorate General for Health
ECDC	European Centre for Disease Prevention and Control
EU DG	European Union Directorate General
EUROPOL	European Union Agency for Law Enforcement Cooperation
EWRS	Early Warning Response System
JA	Joint Action
NCCC	National Crisis Coordination Committee
SO(X)	Specific Objective
SOP	Standard Operational Procedures
TTX	Tabletop exercise
VX	Nerve agent for military use: S-{2-[Di(propan-2-yl)amino]ethyl} O-ethyl methylphosphonothioate, named according to IUPAC (International Union of Pure and Applied Chemistry)
WP	Work Package

Impact summary

- On the 15th of June 2023 in Madrid, thirty-four participants from health, security and civil protection sectors from 12 countries attended a tabletop exercise organised by the Spanish Ministry of Health, within the framework of Joint Action TERROR (WP6). Participants were guided to solve a two-part scenario in limited time: 1) a VX-release in the public transport at national level and 2) a mass gathering terror attack with VX at international level.
- Sector-specific responses to the different injects were collected as well as gaps, good practices and proposed actions identified, with a focus on cross-sectoral collaboration. Specific preparedness and response actions were assessed by designated evaluators through a checklist.
- The countries demonstrated high-level of awareness and cross-sectoral collaboration in the key preparedness and response areas. All the countries had in place collaboration for cross-sectoral information sharing and communication, especially in the mass-gathering-related context, using cross-sectoral preparedness and response plans (5/12), cross-sectoral crisis-coordination committees (9/12), joint risk assessment (8/12) and joint risk communication (11/12).
- Regarding proposed actions for improvement, national strategic stockpiles development, joint training and exercises at national level and formalized bilateral countries agreements for surge capacity were identified.
- In terms of sustainability, the materials of this tabletop exercise have been requested to be used or adapted for national simulation exercises and/or for training purposes (by at least four countries within and one outside of the JA partner countries at the time of this report).

Identified strengths, gaps and action points

Main strengths in preparedness and response resulting from the exercise.

- Several countries mentioned having appropriate legislation, plans and procedures in place on this field. The planning framework differed from country to country, being either (i) general preparedness plans, (ii) CBRN plans and/or (iii) antiterrorist plans. Specifically, in the context of these plans, several countries stated that the chain of command in each sector was clear in case of scaling up the response.
- Several countries stated to have well established collaboration and channels for information sharing and communication between sectors involved in this field. The COVID-19 pandemic has helped on this regard. Some countries indicated a low threshold for contacting each sector.
- In general, countries indicated a high level of awareness on the need of collaboration between sectors on this field, especially when it comes to a mass gathering context preparedness phase.
- In small countries, key stakeholders from different sectors or agencies know each other well and are aware of each one's roles and responsibilities regardless of whether or not these written plans framing this collaboration exist.
- Several countries reported that response capacities are tested regularly through cross-sectoral TTX. Regular trainings involving key actors on CBRN are also organized.
- Several countries indicated well-established strategies for cross-sectoral joint risk communication.

Main gaps in preparedness and response resulting from the exercise and their own national experience.

- Few countries referred to suboptimal strategic planning in CBRNE.
- It was mentioned that there was a lack of national strategies for crisis management and response or written procedures with clear roles and responsibilities for each sector or agency.
- The framework of preparedness and response for chemical agents is less developed and there is less experience than the one for biological agents.
- Several countries referred to suboptimal national strategies regarding medical countermeasures stockpiling and protective equipment.
- Several countries referred to suboptimal laboratory capacities related to certain chemicals.
- It was pointed out the need of human resources with the right core competences.

- It was raised that there is a lack of exercises and training opportunities for the sectors involved.
- It was mentioned that the flow of information between the first respondents (operational level) and the strategic level is not always clear.
- In small countries, surge capacity in health care facilities is a challenge. In the case of mass casualties, it is likely to be required. As numbers of beds and healthcare professionals are limited, bilateral agreements between countries and international actors are a priority.
- Joint risk communication strategies are a challenge in decentralized countries which becomes more complex with lack of public awareness and lack of trust in authorities.

Main actions in preparedness and response resulting from the exercise

- Develop legislation and standardized operating procedures covering the specific aspects of cross-sectoral collaboration in relation to responsibility and competencies, and avoiding duplications.
- Review and update existing plans to better tailor preparedness and response on biochemical terror attacks.
- Develop a national strategic stockpile with an all-hazards approach.
- Conduct regular meetings including all relevant sectors in peacetime to better know each other's roles and responsibilities and to raise awareness of each other's procedures.
- Conduct trainings such as TTX or workshops involving all sectors to increase awareness of each other's roles and address and clarify potential grey areas on their responsibilities.
- Improve laboratory capacities for certain chemical agents.
- Formalize bilateral formal agreements between countries for surge capacity in case of suboptimal capacity in a specific country.

Background

The tabletop simulation exercise (TTX) “X-treme Vision” was organized in the framework of WP6 JA TERROR activities (Task 6.2) which assesses the cross-sectoral collaboration between security, civil protection and health in preparedness and response to a biological or chemical terror attack in the European countries that take part in the JA. As described in the JA Grant Agreement, *the exercise aims to challenge the identified structures and procedures and will provide evidence-based assessment of the response to biological/chemical terrorist attack and the associated gaps.*

The current report contains the description of the TTX development process as well as the evaluation methodology and results of its performance.

Objectives

Overall objective

Examine cross-sectoral collaboration in the areas of strategic preparedness and response, risk communication and coordination between Health, Law enforcement – security and Civil Protection in case of a biological or chemical terror attack.

Specific objectives

- Assess the activation of the existing cross-sectoral preparedness and response plans and standard operation procedures at strategic level (SO1).
- Evaluate current roles and responsibilities in the management of the incident, focused on cross-sectoral risk assessment (SO2).
- Evaluate information flow across sectors during the management of the incident (SO3).
- Assess joint actions on risk communication, to the public (SO4).
- Understand the use and interactions through the mechanisms and structures in place at national and international level (such as the Early Warning Response System (EWRS) or the Common Emergency Communication and Information System (CECIS)) (SO5).
- Identify gaps and best practices regarding cross-sectoral collaboration (SO6).

Methodology

Preparation phase

The design of the tabletop exercise (TTX) is based on the findings of previous mapping performed in the WP6. Activities such as the survey and experts' interviews have guided the objectives, structure, the main dimensions of the scenario, the methodology and format. Additionally, some reference documents and exercises have been used for inspiration regarding methodology and design of the "X-trem Vision" TTX (see references in the final section).

The TTX design was led by the WP6 leaders belonging to the Coordinating Centre for Health Alerts and Emergencies of the Spanish Ministry of Health, with the contributions of the Institute of Health of Belgium -SCIENSANO; and the Belgium National Crisis Coordination Centre.

The work was supported by a multi-sectoral working group (TTX-WG) which was set up to review and provide inputs to the process and the documents. The TTX-WG was composed of members of the WP6 partners in addition to leads and co-leads members, including those responsible from security and civil protection from Spain and Belgium in order to develop a scenario with a proper perspective from the different sectors. ECDC Unit of Preparedness and Response was also asked for scenario review.

Bilateral meetings and conversations with WP7 and WP8 (specifically WP8) contributed suggestions to the selection of the agent and WP2 prepared the inject for the kick off for the exercise. Methodology to evaluate the TTX was discussed with WP3. Post-exercise questions were included in the WP3 activity evaluation form to avoid overloading participants.

Scenario

The TTX scenario used a multi-country terror attack with a chemical agent affecting different feature places, mainly the public transport (metro, buses) and mass-gathering events (square in the city-centre or football stadium), with huge impact in terms of deaths and injured people happening in the margin of an international sport event.

Inspired by the terrorist attack happened in Utoya (Norway, 2011) -among others- a supremacist terrorist group *EAG (EAG-eilean air a ghlanadh)* present in the majority of the European countries, have the purpose of cleaning countries in Europe of migrants and "non- truly EU" citizens. The *operation "X-treme Vision"* is foreseen to happen in the margin of the European football cup. It starts the previous days of the semi-finals organized in country A. Other countries might be also affected.

The exercise took place the 15th of June, from 8:30 to 16 (CEST). The simulated event started on 12th of June, affecting all the participant countries while the mass gathering event took place on the 15th where only three countries were directly affected. The attack had an intensive setting demand regarding health, civil protection and security bodies, including also chemical reference lab involvement, media for public fear management, and the need for cross sectoral and cross border collaboration in terms of coordination and communication.

The exercise was divided in two parts:

- I. Threat detection and activation of preparedness and response plans in bio/chem terror attacks. Cross-sectoral coordination: information flow [scenario: all countries were affected by the **release of VX in the public transport**].
- II. Event escalation. Cross-sectoral risk communication. Cross-border collaboration [Scenario: three countries phase a **mass gathering terror attack with the VX**. All the rest of the countries might somehow be affected].

The TTX scenario was composed of 12 injects, including the one that kicked off the exercise and the one that ended it. Eight were delivered in Part I and the rest in Part II. During Part I, two injects were presented to all the countries sectors, those that simulated Media information. Per sectors, 3 injects targeted public health participants; other 3 went for security sector only, and 5 injects were addressed to security and civil protection. In Part II, all the injects went to all the sectors. Three additional injects went specifically to the countries involved in the EuroCup Football Match, the one that hosted the match, and the two countries whose teams were fighting for the Cup and who organised each a major event to broadcast the match on a big screen. All the rest received information that the three countries referred were suffering attacks.

On top of that, the scenario included 3 plenary sessions: one sector specific, two others at country level to focus on raising gaps and good practices.

Selection of participants

Competent Authorities from each country in the JA TERROR were requested to nominate three participants at the strategic level, one per each sector: public health, law enforcement /security and civil protection. An invitation letter was sent with the following terms of reference:

- Be employed in one of the following sectors - public health, law enforcement - security, or civil protection.
- Participants are decision makers, policymakers or subject matter experts representing public health/ law enforcement-security/ civil protection emergency response partners with direct responsibility in preparedness and response to biological and chemical terror attacks.
- Participants need to be familiar with plans, procedures and information systems for reporting and communication at national and European level.
- Good working knowledge of the English language.

Nominated participants were then requested to register through a registration link for them to provide their contact details, position, institution, sector, and country, among others.

Several reminders were sent to encourage all the countries and their three sectors to be involved.

In addition, other relevant institutions were invited namely DG SANTÉ, DG HOME, DG ECHO, EUROPOL and ECDC. Only DG SANTE, through its Unit B2 (Health Security Committee) did attend.

Exercise phase

During the exercise, 21 members of the working group were involved in the TTX team: eight as observers from Italy (1), Norway (1) and Spain (6); four as facilitators from Belgium (1), The Netherlands (1) and Spain (2) and four as evaluators from Belgium (2), Norway (1) and Spain (1); plus five members from the WP6 Spanish team for the overall presentation, coordination and logistics of the TTX.

A total of 34 participants, from 12 countries took part in the TTX. In four countries all three sectors participated (Belgium, Hungary, Malta, and Norway). In seven countries 2 sectors participated (Croatia, Netherlands, Serbia, Slovenia, Spain, Sweden, and UK) and in one country one sector (Greece). In addition, the head of the Health Security Committee from the DG SANTÉ B2 attended the TTX playing its own role during the exercise. Per sector, 18 participants were from health; 6 from civil protection and 10 were from security sector.

Three countries were distributed per table, with at least one representative per sector, in each table. One facilitator and one evaluator were assigned to each of the tables.

The TTX condensed a complex situation, allowing for certain exercise artificialities, in the interest of exercise objectives achievement within the scheduled timeframe. The scenario was based around a fictional event and it was designed to generate discussion.

The scenario has been designed to highlight the roles of actors from different sectors in different countries, and to have every participant consider the threat as it would affect their organization in their own country. The exercise players were expected to respond in accordance with their existing countries' plans, procedures, and policies. In the absence of applicable plans, procedures, or policies, players were expected to apply individual and/or team initiative to face response requirements.

Three different chronometers were projected to the screen for each sector be aware of their time for response devoted to each inject.

Evaluation process

The evaluation process was addressed to assess the objectives of the TTX and the general performance. A set of questions included in a check list (annex 3) was developed for evaluation purposes. Each evaluator was in charge to fill the check list at each table for each country.

During the exercise, information was collected not only through the checklist, but also through the responses provided by participants to each inject. In addition to this, qualitative information from evaluators and observers was also collected to complement the information from the checklists, especially the information coming from the plenary sessions (sector-specific and the final hot debriefing addressed to raise strengths, gaps and actions to solving them).

After the exercise, there was immediately a hot debriefing with facilitators, evaluators and observers and a cold debriefing ten days after the exercise through an online evaluation form sent by WP3 in coordination with WP6.

Main results

Results per objectives

Specific Objective 1 (SO1): Assess the activation of the existing cross-sectoral preparedness and response plans and/or standard operation procedures at strategic level.

Along the exercise, all the 12 participant countries activated their sector specific Standards Operational Procedures (SOP's) to respond to the threat.

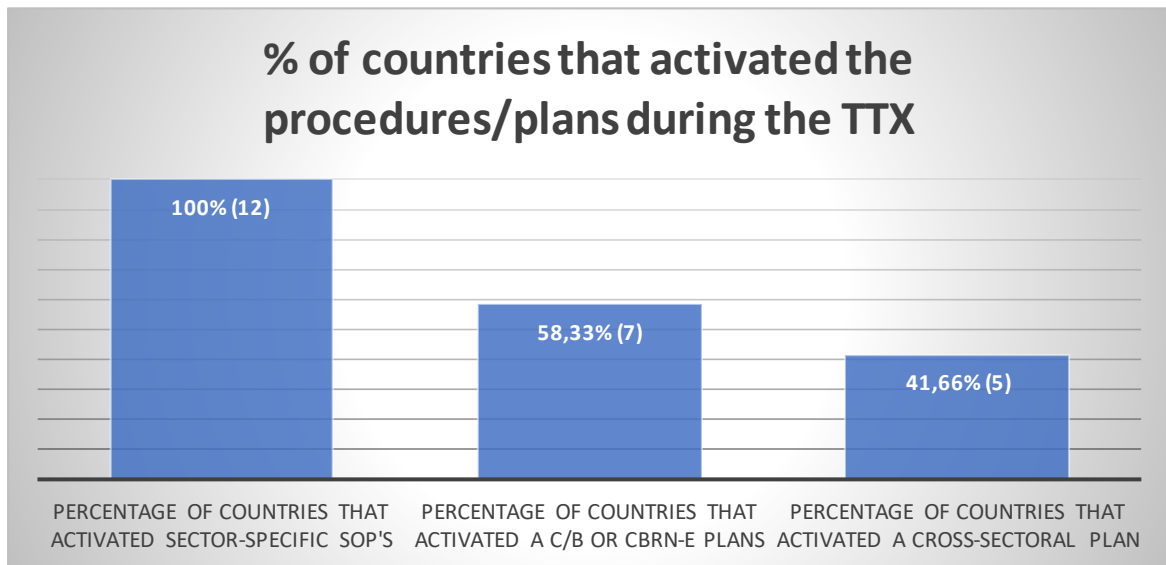


Figure 1: Activation of existing cross-sectoral preparedness and response plans and sector-specific SOP's.

Seven the countries activated their plan at national level and specifically for chemical, biological or CBRN-E terrorism; for five countries the activated plan was cross-sectoral.

In terms of timing, replies to injects and evaluators' checklist suggest that half of the participating countries would activate a plan at a very early stage in the preparation phase for the mass gathering sport event referred in the scenario. Once the agent (VX) is identified all the countries would have a counterterrorist or CBRN-E plan activated.

Specific Objective 2 (SO2): Evaluate current roles, responsibilities focus on risk assessment cross-sector

A risk assessment is conducted in the 92% (11) of the countries. The joint risk assessment is developed in 67% (8) of the countries at a very early stage of the scenario (Inject 0) when all the participants were requested to list the preparedness actions to put in place toward preventing terrorist attacks or mitigate its impact when an international mass gathering sport event is foreseen in a big city as well as the cooperation between sectors (See questions 01 and 02 in the TTX materials in annex IV).

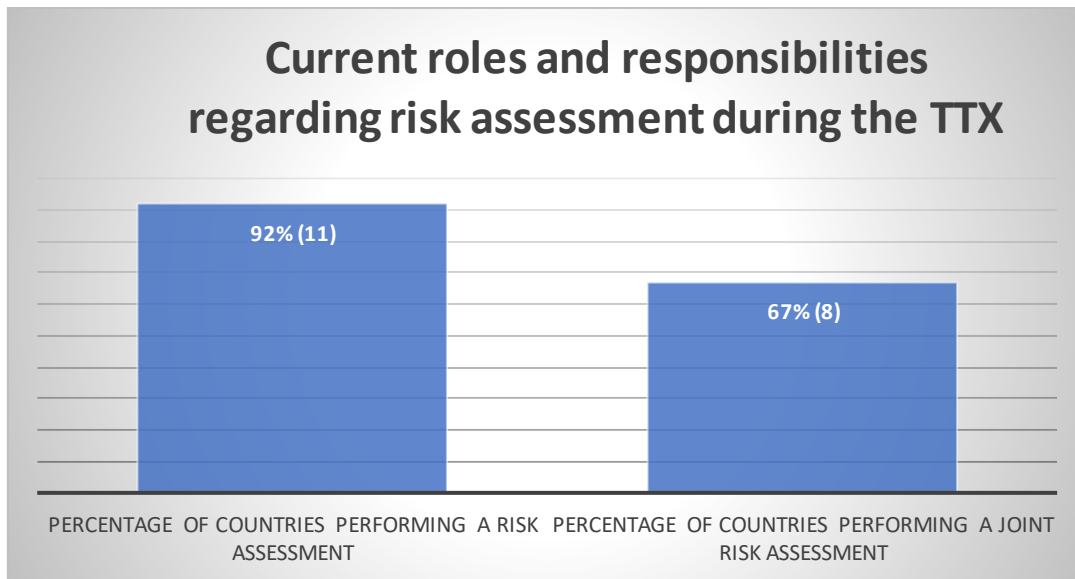


Figure 2: Current roles and responsibilities focus on risk and joint risk assessment.

Specific Objective 3: Evaluate information flow across sectors during the management of the incident.

Most of the countries, showed information flow between all stakeholders during the management of the incident. In the 92% (11) of the countries there was communication between Security & Civil Protection; in the 83% (10) between Security & Public Health and in 67% (8) communication between Public Health & Civil Protection occurred.

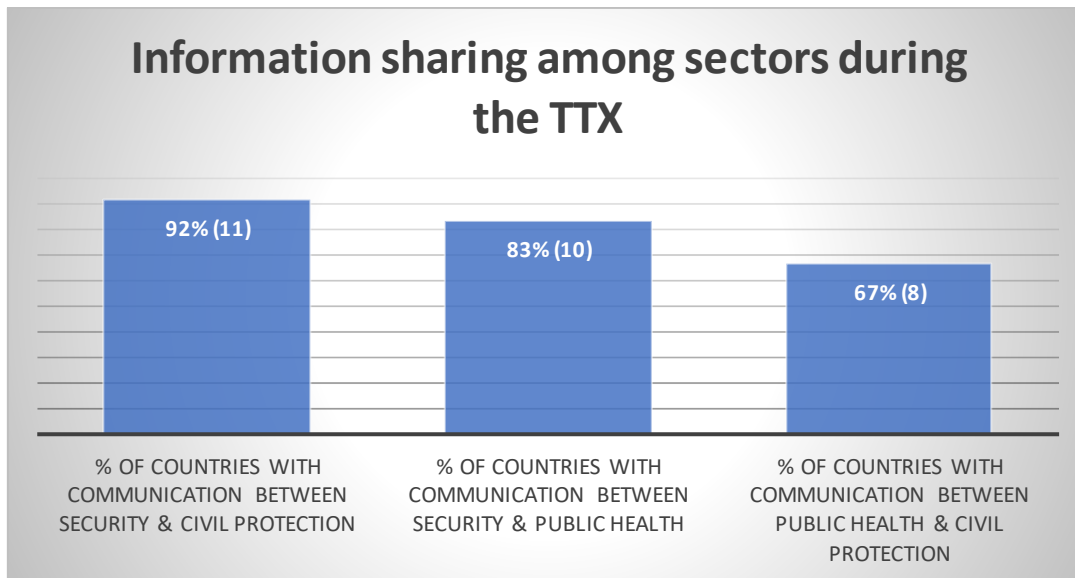


Figure 3: Information flow between sectors during the management of the incident management.

Regarding the existence of any type of national cross-sectoral crisis coordination body, 75% (9) of the countries mentioned its establishment as National Crisis Coordination Committee (NCCC) for the management of the crisis during the TTX.

The leading sector of the NCCC varies among countries, but it is commonly lead by security, justice or civil protection at the central level.

Specific Objective 4 (SO4): Assess joint c actions on risk communication to the public.

In the 92% (11) of the countries at least one activity of joint risk communication is proposed to be performed.

Specific Objective 5 (SO5): Understand the use and interactions through the mechanisms and structures in place regarding risk communication (platforms at national and international level: EWRS or CECIS).

In the 92% (11) of the countries at least one activity regarding risk communication, was done at international level. However, only when considering the cross-border and international communication, only 42% (5) of the countries reported to use a platform for cross-sectoral communication.

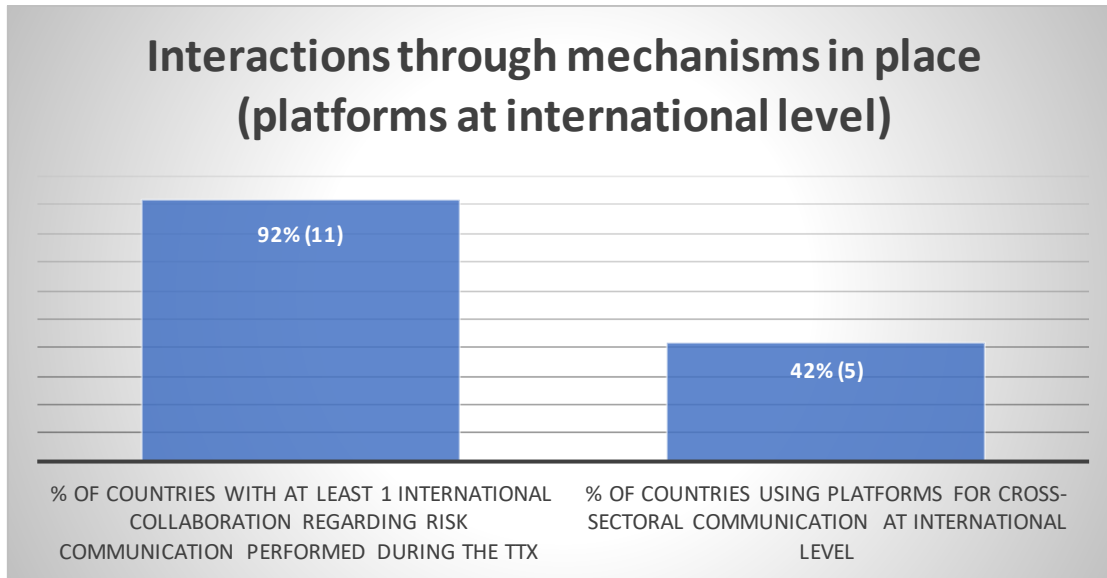


Figure 4: Cross-sectoral communication and secure means (platforms) at international level

Specific Objective 6 (SO6): Identify gaps and best practices needed regarding cross-sectoral collaboration.

All the countries have identified at least one gap, one good practice and related action points to solve the gaps. The following section aims to summarize the key strengths, weaknesses and actions stated by participant countries following their performance during the TTX.

Limitations

One of the main limitations is that not all the 12 countries participated with their 3 sectors. Even, one country played the game with only one sector present, therefore, conclusions on cross-sectoral collaboration in this specific case were not even useful for conclusions.

The terms of reference proposed to countries competent authorities for them to select their participants per sectors were carefully tailored, however, each country decided to whom address the invitation. For different reasons, the people that finally took part in the exercise were not always the expected profiles. For instance, in at least two countries the person attending was not someone at the strategic level but at the operational level. As the TTX was designed to test the strategic decision making and coordination, the fact to have different levels in the same country, affected the level of discussions held, and impacted in the assessment of the decisions taken during the exercise as well as the knowledge on procedures and decisions.

In terms of cross-sectoral collaboration we need to consider aspects that represent potential biases during its performance. The fact that the representatives of the sectors were sitting together at the same table during the TTX is an artefact to be considered, since it could have distorted the results related to cross-sectoral collaboration, information sharing and collaborative risk assessment compared to real situations. The same consideration can also be applied to the timeliness of the activities performed during the TTX. However, the effect in relation to the objective of the JA could be positive, since in the future it could promote collaboration between them, that is, awareness of this needs to improve before cross-sectoral collaboration is increased.

Conclusions

The specific objectives of the tabletop simulation exercise, as an assessment of the different considered aspects was obtained. However, some elements related to the *activation of the existing plans and activation of CBRN-E for specific Chemical and Biological* are still in the grey zone and might need further reflections on it to identify what the gaps are and how to mitigate them. Despite this, regardless of these plans, several countries stated that the chain of command in each sector was clear in case of scaling up the response.

The main roles and responsibilities, primarily related to incident management and risk assessment, have been timely and well-played during the exercise, although they might be affected by the TTX artefact.

Regarding the risk communication aspects, several countries indicated well-established strategies for cross-sectoral joint risk communication.

Regarding the use of the platforms as a secure means for cross-sectoral information sharing, this is still an area that needs improvement. Solutions can be adapted to country specific conditions. However, promote the use of already existing platforms with a section for cross-sectoral information sharing or the development of specific communication -coordination between sectors can also be considered.

Although there is a huge diversity among responses from countries, the TTX allowed the testing of responsibilities between sectors. Regular trainings and the strength of capacities through cross-sectoral exercises are perceived as key actions to improve response.

Further WP6 and Joint Action activities, such as the last simulation exercise, should take into account the conclusions and lessons learnt into consideration in its design and methodology.

Still there is room for improvement, as for instance, some countries proposed that legislation should be updated to include cross-sectoral competencies and responsibilities to ease the collaboration; the plans could also be updated to give more attention to bio or chemical terror attacks.

Increasing the joint training and exercises during peacetime might foster mutual knowledge, understanding, language and communication, SOP's harmonisations, and building trust. The TTX has raised the need for the development of national strategies to improve cross-sectoral coordination.

The "X-treme Vision" tabletop simulation exercise has received high scores in the satisfaction survey performed (see Annex 1). It has been valorised as useful and relevant and it has fostered opportunities for intra- and inter-country networking.

References

- 1) Tabletop exercise on Botulism. In the frame of the EC-funded EpiSouth Plus Project-WP5. Organized by Institute of Health Carlos III-Spain, with the contribution of WHO-HQ; C3-DG SANTE and The Coordinating Centre for Health Alerts and Emergencies (CCAES), of the Spanish MoH.
- 2) Nautilus drill 2013 (SARS-CoV-Like threat). In the frame of the EC-funded EpiSouth Plus Project-WP5. Organized by Institute of Health Carlos III-Spain, with the contribution of WHO-HQ; C3-DG SANTE, ECDC and The CCAES-MoH; involving 20 Mediterranean EU and Non-EU Countries. Link: <https://www.episouthnetwork.org/content/episouth-plus-nautilus-simulation-exercise-2-3-october-2013>
- 3) FULA SIMEX drill 2018. (Monkeypox) - Spanish national exercise. CCAES- Ministry of Health. Spain.
- 4) NEDS TTX 2015; materials from the Global Health Preparedness Programme of the Norwegian Institute of Public Health.
- 5) WHO Simulation Exercise Manual. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.
- 6) European Centre for Disease Prevention and Control. Handbook on simulation exercises in EU public health settings – How to develop simulation exercises within the framework of public health response to communicable diseases. Stockholm: ECDC; 2014.

Annexes

Annex 1: Results from the WP3&6 satisfaction survey

A satisfaction survey with some technical questions inserted (as cold debriefing aspects) was sent a few days after the exercise. Thirty seven attendees filled in the survey.

The figure below shows the distribution among those that responded to the satisfaction survey according to the role played during the TTX.

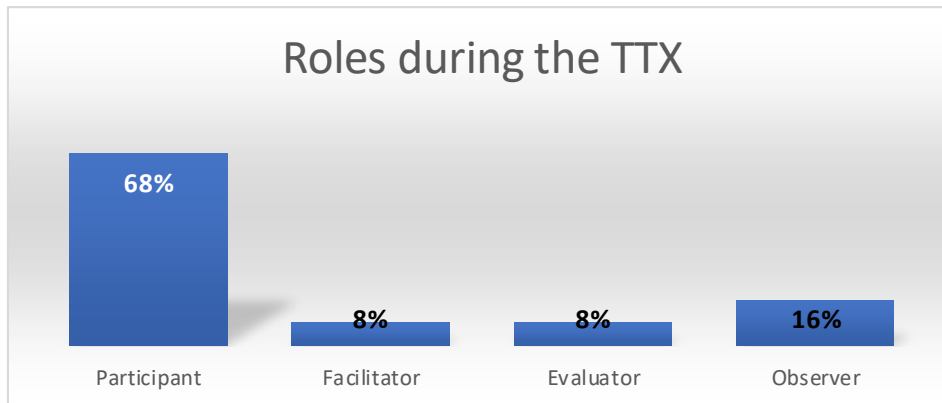


Figure 1: Distribution of attendees according to their role in the TTX

Most of the attendees were from Public Health. Below we show the sectors representation and the roles played among those that filled the survey:

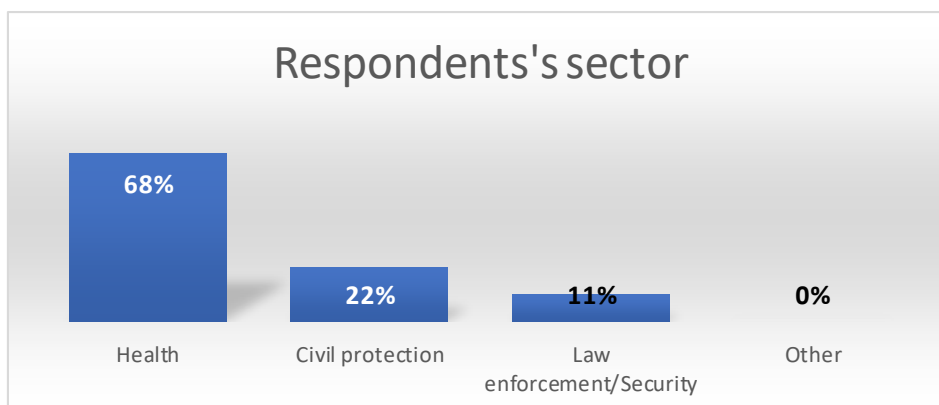


Figure 2: Distribution of attendees according to their sector

Almost half of the respondents (49%) fully agreed that the content of the exercise was relevant for their work while 43% highly agreed and 8% just agreed on. No one disagreed with the statement.

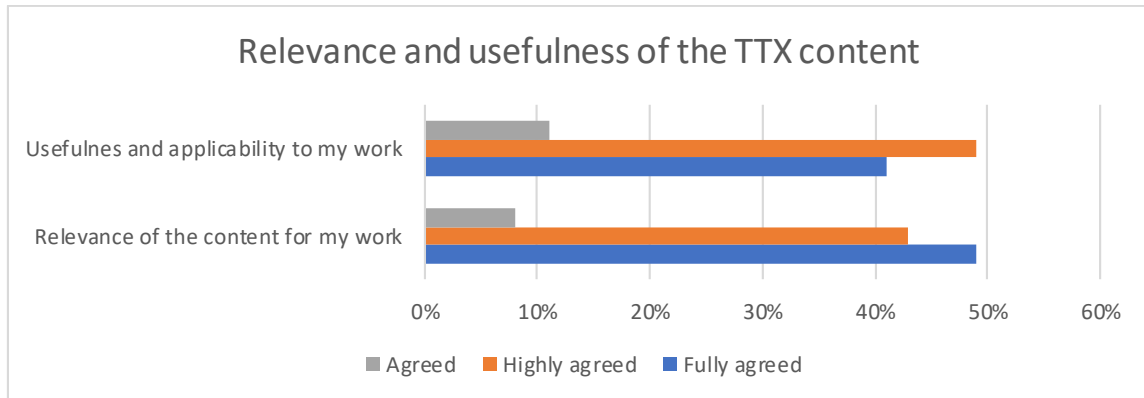


Figure 3: Relevance and usefulness

The TTX scored also very high in terms of effectiveness and applicability, as presented in Figure 4 below.

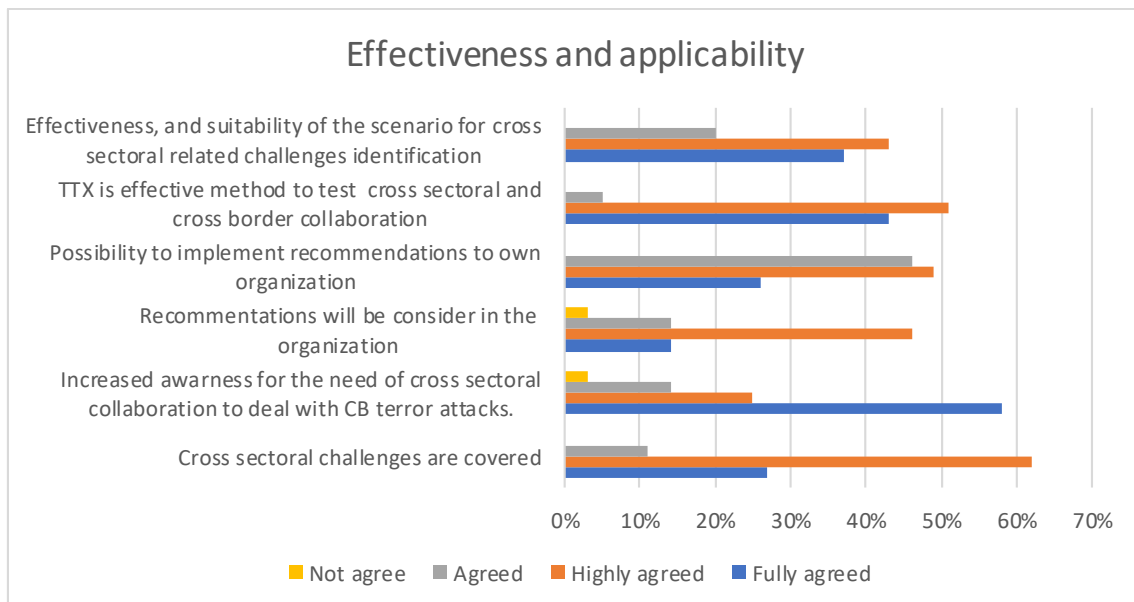


Figure 4: Effectiveness and applicability

Qualitative comments were collected in regards to the **cross-sectoral and cross-border collaboration**, here are some of them:

The utilize a TTX has been perceived as an effective approach for cross-sectoral and cross-border aspects. Organizing it with the different sectors and countries was appreciated as interesting and useful for multi-agency and inter-country decision making.

Few comments mentioned the fact that the exercise was clear while remaining national but the change of dynamic when it turns to a Mass-gathering event and its cross-border dimension it become more difficult and got them a bit confused at the beginning. The fact of the international meeting, the EU Health Security Committee helped to understand the cross-border and

intercountry coordinated actions. Before few countries didn't consider informing other countries (comment from non PH sector).

It was also highlighted that the importance of the CBRN is based on it does not work unless it is truly multi-agency in its response. The necessity of collaboration is very clear, but there is still the need to emphasize it and these types of exercises help. In this regard, some participants referred to that although there is awareness of the need of coordination, joint actions well defined and established in advance might help to increase the effective coordination.

A final interesting aspect that was also mentioned is that although the plans for terrorism include clear links between security, civil protection and health care services, so they use to coordinate and communicate with each other, however, the link with public health needs for some improvement.

Final strengths/ weaknesses/action points exercise per country very useful in this perspective. Extracting recommendations from other parts less evident (as evaluator).

Concerning **the networking opportunities** raised during the exercise, here are the main results:

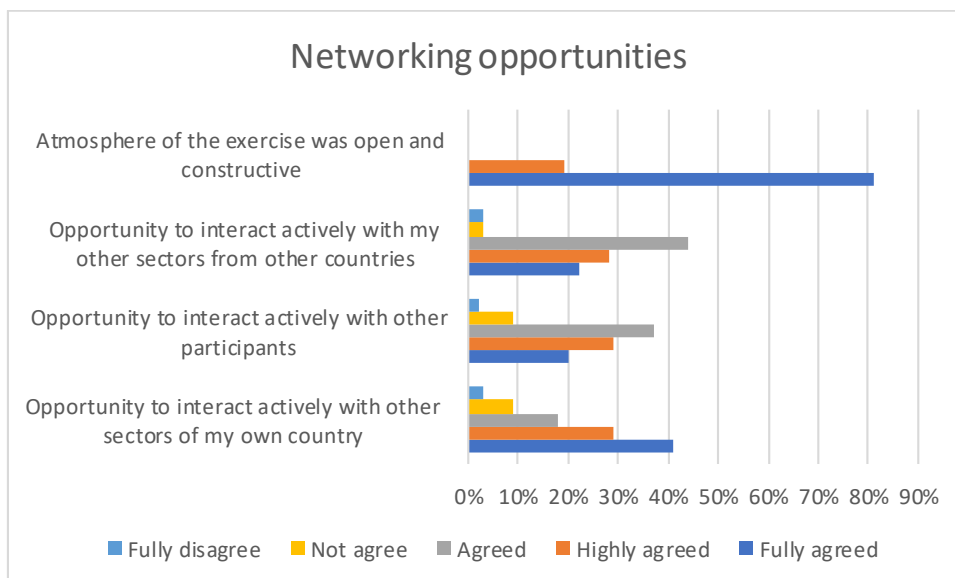


Figure 5: Perception of opportunities for networking.

Qualitative comments on the networking opportunities:

Several participants mentioned the fact to be all the sectors from different countries in the same table, provided the opportunity to hear from different perspectives. Others referred that more time would have been needed to cross border collaboration deep exchanges.

Some considered that the number of injects and questions to answer was too high and did not allow an adequate dialogue with the other sectors. Checkpoints could better have been separated per inject.

Several participants devoted some comments to the relaxed and trusting atmosphere created by facilitators for them to feel confident and comfortable for sharing.

Annex 2: Evaluation form for baseline tabletop simulation exercise's participants

Baseline simulation exercise

Demography

Who are you? Please select one choice.

I am a project member working in either of the eight work packages of JA TERROR	
I am working at one of the JA TERROR partnership organisations but I am not directly involved in the project	
I am a member of the JA TERROR Advisory Board	
I am a project-external stakeholder, i.e. working at an organisation that is concerned with preparedness and response to biological and chemical terror attacks but that is not part of the JA TERROR partnership	
If other, please specify:	

In which sector are you working? Please select one choice.

Health	
Civil Protection	
Law enforcement / Security	
If other, please specify:	

Which was your role in the Table Top Simulation Exercise? Please select one choice.

Participant	
Facilitator	
Evaluator	
Observer	
If other, please specify:	

In which country are you working? _____

Please rate to what extent you agree with the following statements.

Quality and content of the exercise	Not at all				Fully agree	Comment
1. The simulation exercise was well organized	1	2	3	4	5	
2. The prior instructions received have been useful in order to act as expected during the exercise	1	2	3	4	5	
3. The content of the exercise was relevant for my own work	1	2	3	4	5	
4. I found most of what I heard/learnt useful and applicable to my own tasks, responsibilities and activities in my country/organisation	1	2	3	4	5	

Quality and content of the exercise	Not at all				Fully agree	Comment
5. The exercise covered the cross-sectoral challenges at sufficient depth	1	2	3	4	5	
6. The exercise increased my perception of the need for greater collaboration with other sectors of my country to deal with terrorist attacks	1	2	3	4	5	
7. We will consider the recommendations from the exercise in my organisation	1	2	3	4	5	
8. It is possible to implement recommendations from the exercise in my organisation/country	1	2	3	4	5	
9. In which timeframe might such implementation be possible?	6 months	1 year	2 years	3 years	> 3 years	
10. Using a table-top simulation exercise as method was an effective and suitable approach for testing cross-sectoral and cross-border collaboration in a bio/chem terrorist attacks.	1	2	3	4	5	

Quality and content of the exercise	Not at all				Fully agree	Comment
11. The scenario (injects) was effective, credible and suitable to identify challenges in cross-sectorial and cross-border collaboration	1	2	3	4	5	
12. Did you find it appropriate the time spent on the exercise?	1	2	3	4	5	
13. Was the time devoted to plenary sessions sufficient?	1	2	3	4	5	
14. I had enough opportunity to interact actively with other sectors from my own country.	1	2	3	4	5	
15. I had enough opportunity to interact actively with my sector from other countries.	1	2	3	4	5	

Quality and content of the exercise	Not at all				Fully agree	Comment
16. I had enough opportunity to interact actively with all participants.	1	2	3	4	5	
17. The atmosphere of the exercise was open and constructive	1	2	3	4	5	

Impact of the event	Comment
18. What added value, if any, do you see with this simulation exercise for yourself?	

<p>19. What added value, if any, do you see with this simulation exercise for your organisation/your country in terms of:</p> <ul style="list-style-type: none"> - Your own sector preparedness - cross-sectoral collaboration - risk assessment and crisis communication - novel threats 	
<p>20. From your perspective, were all relevant sectors and organisations represented at the exercise? If not, which organisation did you miss?</p>	
<p>21. Do you have any additional comments or suggestions for improvements for a next simulation exercise?</p>	

Annex 3: Composition of the TTX Working Group

Name	Institution	Sector	Country
Berta Suárez	CCAES -MoH	Health	Spain
Bernardo Guzmán	CCAES -MoH	Health	Spain
Concha Martín	CCAES -MoH	Health	Spain
Maryoli Veloso	CCAES -MoH	Health	Spain
Pablo Sosa	CCAES -MoH	Health	Spain
Mónica Solé	CCAES -MoH	Health	Spain
Carmen Varela	ISCIII	Health	Spain
Franck Limonier	Sciensano	Health	Belgium
Nino Van Impe	National Crisis Coordination Centre	Security	Belgium
Seppe Van Den Steen	Ministry of Health	Health	Belgium
Saskia Rutjes	RIVM	Health	The Netherlands
Francesco Vairo	Spalanzani	Health	Italy
Anders Dybwad	Norwegian National Unit for CBRNE Medicine. Oslo University Hospital	Security	Norway
Carlos García	General Directorate of Civil Protection and Emergencies	Civil Protection	Spain
Antonio Acevedo	National Police of Spain	Security	Spain

Annex 4: Evaluation tools: Checklist

Table #:	Evaluator
<i>Insert country names</i>	<i>Insert evaluator name</i>

Please, insert a “Y” if Yes, “N” if No; “NA” if Not Applicable. Insert comments if needed.

Specific Q for the checklist	Country Sector missing:		Country		Country	
	Y/N/NA	Comments	Y/N/NA	Comments	Y/N/NA	Comments
Were any sector specific SOPs activated?						
Were any national plans activated?						
Were any specific national plans for CB terrorism activated?						
Were any national cross-sectoral plan for biological and chemical terror attacks activated?						
Was a risk assessment performed after receiving the signal?						
Was a joint risk assessment performed?						
Is there a National Crisis Coordination Committee that leads the response at national strategic level?						
Was there communication /information sharing between the sectors according to plans?						
Was there communication between Security & Civil Protection?						
Was there communication between Security & Public Health?						
Was there communication between Public Health & Civil Protection?						
Has the country set up at least 1 activity of joint risk communication?						

Specific Q for the checklist	Country Sector missing:		Country		Country	
	Y/N/NA	Comments	Y/N/NA	Comments	Y/N/NA	Comments
Has any platform /mean be used for secure communication among sectors at strategic level?						
Did the countries' Public Health sector communicate the risk with other sectors at national level?						
Did the countries' Security sector communicate the risk with other sectors at national level?						
Did the countries' Civil Protection sector communicate the risk with other sectors at national level?						
Was at least 1 international cross-sectoral collaboration regarding risk communication performed?						
Did the country identify any gaps in its cross-sectoral CB preparedness and response?						
Did the country identify any good practices in its cross-sectoral CB preparedness and response?						

Annex 5. Simulation Exercise document

Annex 5.a. Copyright and License

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Source:

This exercise is an original work inspired by other exercises and training materials as well as guidelines, see references.

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Franck Limonier (1) (4); Nino Van Impe (1) (5); Saskia Rutjes (1) (6) Francesco Vairo (1) (7); Carlos García (8); Antonio Acevedo (9); Paul Riley (10).

Acknowledgement:

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(4) SCIENSANO, Belgium

(5) Nationaal Crisiscentrum NCCN, Belgium

(6) Rijksinstituut Voor Volksgezondheid en Milieu RIVM, The Netherlands

- (7) Istituto Nazionale per le Malattie Infettive L. Spallanzani – Istituto di Ricovero e Cura a Carattere Scientifico INMI, Italy
- (8) General Directorate of Civil Protection and Emergencies. Ministry of Interior. Spain
- (9) General Directorate of National Police. Ministry of Interior. Spain
- (10) European Centre for Prevention and Disease Control
- (11) Institute of Health Carlos III, Spain
- (12) Norwegian CBRN-E Medical & Advisory Centre

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Revisions:

Further revisions or adaptation can be referred here with the authorship, by keeping the list of original contributors: sources, authors, reviewers and adding the revisions contributors. You must follow the copyright and license rules detailed here below.

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Annex 5.b. Tabletop exercise sheet

Exercise name	“X-treme Vision”
Exercise date	15 th June 2023
Scope	The JA TERROR TTX is planned as a face-to-face tabletop exercise, where each participating sector will have the opportunity to discuss on decision-making, roles and responsibilities, communication and information sharing, and coordination to cope with a fictional terror attack. The exercise focuses on the cross-sectoral collaboration among public health authorities, law enforcement and security, and civil protection at country level. The exercise will also explore coordination activities between countries as well as with relevant international stakeholders within the EU/EEA.
Exercise area	Cross-sectoral response to a chemical or biological terror attack in EU/EEA.
Objectives	<p>Overall objective</p> <p>Examine cross-sectoral collaboration in the areas of strategic preparedness and response, risk communication and cross-sectoral coordination between public health, law enforcement and security, and civil protection in case of a biological or chemical terror attack.</p> <p>Specific objectives</p> <ul style="list-style-type: none"> • Assess the activation of the existing cross-sectoral preparedness and response plans and standard operation procedures at strategic level (SO1). • Evaluate current roles, responsibilities, focused on risk assessment cross-sector (SO2). • Evaluate information sharing, and communication flow cross-sector during the management of the incident (SO3). • Assess joint cross-sector actions on risk communication among sectors and to the public (SO4). • Understand the use and interactions through the mechanisms and structures in place, regarding risk communication (platforms at national and international level such as the Early Warning Response System (EWRS) or the Common Emergency Communication and Information System (CECIS)) (SO5). • Identify gaps and best practices regarding cross-sectoral collaboration (SO6).
Designed and Organized by	JA TERROR WP6
Sources & References	Several sources have been taken into account to design this exercise, including: materials from several SimEx: 1) Botulism TTX and Nautilus drill 2013 - EpiSouth Plus Project, Mediterranean Countries. Institute of Health Carlos III; 2) FULA SIMEX drill 2018 - Spanish national exercise. Ministry of Health. Spain; 3) NEDS TTX 2015; materials from the Global Health Preparedness Programme of the

Norwegian Institute of Public Health. 4) WHO and ECDC SimEx guidelines; (See references).

Annex 5.c. Tabletop Script and Injects

Exercise overview

The exercise is divided into two parts:

- I. Threat detection, plan activation and first steps in the investigation. Cross-sectoral coordination. Information sharing. [**Public transport release**]
- II. Event escalation. Cross-sectoral risk communication and cross-border collaboration. [**Mass gathering release**]

Methodology

Table Top exercise (TTX)

All three sectors from one participant country are seated together at the same table. Each table will include two or three countries. Each participant should play his/her own sector.

Each table will include the following profiles:

- Countries **participants**: ideally, 3 countries with their 3-sectors participants: each participant will be responsible to answer the questions included in the injects addressed to his/her sector acting as the national strategic level stakeholder.
- **Spokesperson** (one of the participants): to present what the country will put in place during the plenary sessions.
- **Facilitator** from the SimEx Working Group: he/she is in charge of providing the injects to guarantee that key actions or decisions needed at each stage are in place. Further reflexions can also be fostered by the facilitator in case of need. Specific questions are provided in the facilitator's instructions document.
- **Evaluator**, one per table to check the list of expected actions.

The TTX is supported by:

- **Time-keeper**: taking care of the timing (sector -specific)
- **Note takers**: to summarize the key aspects mentioned in the plenary discussions.

- **Observers:** from the different sectors will be around to support the whole TTX performance
- **Inject coordination:** guarantee the pace of the exercise, timely injects delivery
- **TTX lead: coordinator of the post-command**

Scenario background

“A supremacist group” wants to start cleaning countries in Europe of migrants and non-truly EU-origin citizens. They are inspired by the Utøya attacks in Norway (2011). The operation “X-term-Vision” is foreseen to happen in the context of the Euro Cup, an international football event involving most of the countries participating in the TTX. The attack has two phases. The first one, cases slowly appearing, linked to the public transport stations of the most migrants-populated districts of the capital city of the affected country (several countries). This event will represent a slow spreading of the threat. It started in the two to three days before the Euro Cup final. The second part of the attack will happen during the mass gathering: final of the Euro Cup sport event hosted in country X. The two countries the two finalist teams belong to have also a mass gathering each: a big square in the capital city where fans of the teams watch the match in big screen.

Injects

Part 0

Inject 0: Kick Off. (2:18 minutes video)

FROM: Coordination team

TO: ALL SECTORS

SOLVING TIME: 25 minutes

News TV /paper describes how the city is getting prepared for the Final Euro Cup. Security measures are set up in the city.

Questions to be answered by each of the three sectors

.01. What actions would be in place in your country when such an event is planned to prevent a terror attack or mitigate its impact?

.02. How would your sector cooperate with other sectors in the preparedness phase?

PART I.

Inject 1. Public Health threat detection in the public health sector

FROM: Coordination team

TO: PUBLIC HEALTH

SOLVING TIME: 25 minutes

Day 13th June:

You are the public health authority at national level in your country.

You receive the following notification through the national surveillance network: “17 people have been attended in two hospitals and four primary health care centres from two neighbourhoods in the capital city. All patients started having symptoms on the 12th of June. The symptoms appeared suddenly. All of them had similar symptoms including headache, malaise, sweating and muscle twitching. Only two patients reported fever the day before. One patient was brought to the hospital by ambulance”.

You are informed that samples of the patients have been sent to laboratories serving the affected area. Epidemiologists from the affected districts have started an investigation. Preliminary results seem to indicate that most patients lived or had been in the same district shortly before onset of symptoms.

Questions to be answered by the participant:

- 1.1. What are the initial actions you would perform following this event notification?
- 1.2. Is there a preparedness and response plan available where these actions are described?
Are there any SOPs that would be activated at this time?
- 1.3. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within the public health sector? And with other sectors? Would you use any platform at the national level?
- 1.4. At this moment, would you consider notifying or informing any international entity?
- 1.5. Would any risk communication action be developed at this stage? Who would be in charge in this case?

Inject 2. Threat detection in the security sector

FROM: Coordination team

TO: SECURITY & CIVIL PROTECTION

SOLVING TIME: 25 minutes

Day 14th June.

The central police station in the capital city is informed by the Emergency call centre (112-like) about a call received from a 43-year old man. He reports that, when walking with his dog in a peripheral suburb of the capital, he smelled a strong smell next to an isolated abandoned house. His dog entered the house through an open door and when the man approached the house, he perceived a strong smell “like a dead animal or person”, he informs. He gives them contact details in case they are needed.

The central police station is informed by the police patrol, that after preliminary visual inspection of the scene thorough the window, they have observed two bodies lying on the floor. Different objects and sealed boxes and unreadable printed material as well as public transport maps surrounded the corpses and hanging on the walls.

Questions to be answered by the participant from security :

- 2.1. What are the initial actions you would perform following this event notification? Was a risk assessment performed after receiving the signal?
- 2.2. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your own sector? And with other sectors? Would you use any platform at the national level?
- 2.3. Would you contact Civil Protection Authorities? If yes, what kind of support will you require from them?
- 2.4. Would you communicate the risk to the public at this stage? If yes, how?
- 2.5. Is there a preparedness and response plan available where these actions are described? Are there any SOPs that would be activated at this time?
- 2.6. At this moment, would you consider notifying or informing any international entity?

Questions to be answered by the participant from civil protection :

- 2.7. Would you have a role in this kind of situation?

2.8. What plans and resources would you activate once you are warned by the security sector?

Inject 3. Public Health first laboratory results

FROM: Coordination team

TO: PUBLIC HEALTH

SOLVING TIME: 20 minutes

On day 14th June:

The laboratory informs you (public health authority), that all clinical samples collected from the epidemiologically related patients have tested negative for a large number of bacteria and viruses.

Meanwhile, you are informed about several additional patients being admitted at different hospitals with similar symptoms. Among the suspected and confirmed cases, three deaths reported since the 13th.

New findings from the epidemiological investigation: "All the cases that onset symptoms the 12th of June, took the public transport in the same area and had been at the same public transport station, in a district with a high unemployed rate and with a high proportion of migrant population".

Health professionals at the internal medicine unit are getting concerned, as they do not have enough PPEs.

Potential questions for the participants start to discuss:

3.1. What further actions would you conduct following this follow up information? Would you conduct a risk assessment at this stage?

3.2. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your own sector? And with other sectors?

3.3. Would you communicate the risk to the public at this stage? If yes, how?

3.4. Is there a preparedness and response plan available where these actions are described? Are there any SOPs that would be activated at this time?

3.5. At this moment, would you consider notifying or informing any international entity?

Please, specify the platform/mean.

Inject 4: Further police investigation.

FROM: Coordination team

To: SECURITY

SOLVING TIME: 15 minutes

14th June:

You, as security authority are informed that when the police officers tried to interview the dog owner to collect more information, they got informed that he urgently went to the veterinarian because his dog started suffering convulsions and respiratory failure. One hour later, the dog died.

With this information the central police station decided to send a specialized team for further field investigation, including samples collection. The samples were negative for biological agents in the rapid test, however, a chemical agent has been detected. Further laboratory specific analysis is ongoing.

Questions for the participants:

- 4.1. What further actions you would perform following this event notification?
- 4.2. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your own sector? And with other sectors?
- 4.3. What kind of collaboration will be established between security and civil protection at this stage?
- 4.4. Would there be any kind of evacuation in the area?
- 4.5. Would you communicate the risk to the public at this stage? If yes, how?
- 4.6. Is there a preparedness and response plan available where these actions are described? Are there any SOPs that would be activated at this time?
- 4.7. At this moment, would you consider notifying or informing any international entity?

Inject 5a. Health Security Committee Public Health

FROM: Coordination team/DG SANTÉ

TO: PUBLIC HEALTH

SOLVING TIME: 20 minutes

All the participants from public health move to DG SANTÉ Table for the Health Security Committee meeting. DG SANTÉ moderates the meeting.

Inject 5b. Security International Meeting

FROM: Coordination team

TO: SECURITY

SOLVING TIME: 20 minutes

All the participants from security move to the Table for International Meeting of the sector.

Inject 5c. Civil Protection International Meeting

FROM: Coordination team

TO: CIVIL PROTECTION

SOLVING TIME: 20 minutes

All the participants from civil protection move to table for sector specific international parallel meetings.

Inject 6. NEWS. TWITTER (in the big screen)

FROM: Coordination team

TO: ALL SECTORS

SOLVING TIME: 10 min

In the evening of day 14th the information about an unknown disease and the lack of PPE's at hospitals is all around. Tweets

Questions for the participants:

6.1. What actions you would perform following this information?

Inject 7. Security sector

FROM: Coordination team

TO: SECURITY

SOLVING TIME: 30 minutes

On day 14th June:

Preliminary investigation from the GPS of the mobile phones of the two deceased people in the abandoned house referenced them in the same district as the people affected by the unknown disease that was all around in the media. Additionally, several detailed maps from the public transport station from the affected district were hanging on the abandoned house's interior walls.

Questions for the participants:

- 7.1. What actions you would perform following this information?
- 7.2. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your own sector? And with other sectors?
- 7.3. Would all sectors conduct a joint risk assessment?
- 7.4. Is there a National Crisis Coordination Committee that leads the response at national strategic level?
- 7.5. Regarding risk communication to the public, what are the main actions set up by your sector at this stage? Would you plan a joint risk communication strategy?
- 7.6. At this moment, would you consider notifying or informing any international entity?

Plenary 45 minutes

Inject 8a. Security sector

FROM: Coordination team

TO: SECURITY

SOLVING TIME: 20 minutes

On day 14th June:

The field CBRN Team identifies a chemical agent. War weapon VX. See Fact Sheet Agent (Inject 8c)

- 8.1. What actions you would perform following this information? Would you act differently now that you know the agent?
- 8.2. What are the main conclusions your sector raises?
- 8.3. To whom would you inform about this findings?
- 8.4. Which strategy do your sector set up for risk communication?
- 8.5. Is any press release planned at this step? Are other sectors involved in the elaboration? In which format this risk communication is likely to be done?

Inject 8b. Public Health

FROM: Coordination team

TO: PUBLIC HEALTH

SOLVING TIME: 20 minutes

On day 14th June:

The field CBRN Team identifies a chemical agent. War weapon VX. See Fact Sheet Agent (Inject 8c)

- 8.1. What actions you would perform following this information? Would you act differently now that you know the agent?
- 8.2. What are the main conclusions your sector raises?
- 8.3. To whom would you inform about this findings?
- 8.4. Which strategy do your sector set up for risk communication?
- 8.5. Is any press release planned at this step? Are other sectors involved in the elaboration? In which format this risk communication is likely to be done?

Part II

Inject 9. Large-scale event. All sectors involved.

FROM: Coordination team (screen video or similar)

TO: All SECURITY, CIVIL PROTECTION and PUBLIC HEALTH

Content Summary: 5 minutes (screen)

15th June.

The final of the Euro Cup takes place in Budapest (Hungary) on the 15th of June. The two finalist national teams, Norway and Malta, travelled two days earlier. The capital city is under big security restrictions. The final of the Euro Cup is about to start. Almost 65.000 people are enjoying the opening ceremony. The prime minister, the mayor of the city, and other authorities are in the VIP section of the football stadium. The public is excited. Before the anthems of the countries of the two finalist teams are played, large balloons are launched among the public to make them participate. The stadium is a big party. The spectators pushed the large balls that moved over their heads. Mass media is broadcasting the event.

In the cities of the finalist teams, Oslo and Valetta, authorities have installed big screens in the main square in the capital city, so that fans can enjoy the matches and celebrate the goals and the party to become champions of the Eurocup for the first time. Artificial rain vaporizes on the spectators gathered in the square to combat the high temperatures.

Inject 10.a Large-scale event. Hungary. All sectors involved.

FROM: Coordination team

TO: HUNGARY

SOLVING TIME: 30 minutes

The match starts. Twelve minutes after the start of the match, health care services in the stadium attend two children with malaise, sweating, muscle twitching and respiratory difficulties). Fifteen minutes later, more people in different corners and areas of the **stadium** start to feel sick. They need urgent health care attention. Available ambulances start to evacuate the most severe cases. Half an hour later, at least 103 people have developed similar symptoms.

Questions to be answered by the participant of affected countries:

10a.1. What are the actions your sector would perform following this event?

10a.2. What plan does your country activate? What sector is in charge of the crisis management?

10a.3. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your sector? And with other sectors?

10a.4. At this moment, would you consider notifying or informing any international entity?

10a.5. Would you do a press release? Per sector or a joint one? If yes, how?

Inject 10.b Large-scale event. Hungary. All sectors involved.

FROM: Coordination team

TO: Rest of the Countries

SOLVING TIME: 30 minutes

The Emergency Operation Centre (EOC) from your sector is monitoring the Final Eurocup event. Twelve minutes after the start of the match, health care services in the stadium attend two children with malaise, sweating, muscle twitching and respiratory difficulties). Fifteen minutes later, more people in different corners and areas of the **stadium** start to feel sick. They need urgent health care attention. Available ambulances start to evacuate the most severe cases. Half an hour later, at least 103 people have developed similar symptoms.

Questions to be answered by the participant of neighbouring countries:

10b.1. What are the actions your sector would perform following this event?

10b.2. What plan does your country activate? What sector is in charge of the crisis management?

10b.3. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your sector? And with other sectors?

10b.4. At this moment, would you consider notifying or informing any international entity?

10b.5. Would you do a press release? Per sector or a joint one? If yes, how?

Inject 11.a Large-scale event. Norway. All sectors involved

FROM: Coordination team

TO: NORWAY

SOLVING TIME: 30' minutes

The **main square** in Oslo is full of people. Around 22.000 people are gathered. Fifteen minutes later, some people start to feel sick. Health care services attend the persons affected. Ambulances positioned in and near the stadium start to evacuate a pregnant woman and a children first; then more people start to feel same symptoms (malaise, sweating and muscle twitching, respiratory difficulties, headache, sweating and muscle twitching). Fifteen minutes later, 45 more people in different parts of the square are affected.

Questions to be answered by the participant of affected countries :

- 11.a.1. What are the initial actions your sector would perform following this event?
- 11.a.2. What plan does your country activate? What sector is in charge of the crisis management?
- 11.a.3. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your sector? And with other sectors?
- 11.a.4. At this moment, would you consider notifying or informing any international entity?
- 11.a.5. Would you do a press release? Per sector or a joint one? If yes, how?

Inject 11.b Large-scale event. Malta. All sectors involved

FROM: Coordination team

TO: MALTA

SOLVING TIME: 30 minutes

The **main square** in Valetta is full of people. Around 22.000 people are gathered. Fifteen minutes later, some people start to feel sick. Health care services attend the persons affected. Ambulances positioned in and near the stadium start to evacuate a pregnant woman and a children first; then more people start to feel same symptoms (malaise, sweating and muscle twitching, respiratory difficulties, headache, sweating and muscle twitching). Fifteen minutes later, 45 more people in different parts of the square are affected.

Questions to be answered by the participant of affected countries :

- 11.b.1. What are the initial actions your sector would perform following this event?

11.b.2. What plan does your country activate? What sector is in charge of the crisis management?

11.b.3. Can you describe the notification and information sharing your sector will conduct (to whom/how) at this stage? Within your sector? And with other sectors?

11.b.4. At this moment, would you consider notifying or informing any international entity?

11.b.5. Would you do a press release? Per sector or a joint one? If yes, how?

Plenary 30 minutes

Inject 12 Terrorists communication. All sectors involved

FROM: Coordination team

TO: ALL (Video)

Terrorist group (EAG-eilean air a ghlanadh) is a relatively recent group that wants to start a new era for “cleaning European countries from non-purely European citizens”. EAG members consider that the deepest causes of the economic and societal values crisis in the whole Europe are due to the arrival of huge amount of migrants and refugees in the last 12 years. They take the jobs and resources that should be addressed to “genuine Europeans”. They think that migrants and refugees cause frustration and social conflicts within the population. EAG members want to “erase the problem from Europe”. This is why they are launching their “cleaning operation called: X-tream-Vision”.

End of the SIMEX

Hot debriefing

Questions to be discussed. At country level, participants are requested to identify key strengths, gaps, and actions to solve these gaps during the exercise. Open discussion follows in plenary.

Allocated time 72 minutes

Annex 5.d. References

- 1) Tabletop exercise on Botulism. In the frame of the EC-funded EpiSouth Plus Project-WP5. Organized by Institute of Health Carlos III-Spain, with the contribution of WHO-HQ; C3-DG SANTE and The Coordinating Centre for Health Alerts and Emergencies (CCAES), of the Spanish MoH.
- 2) Nautilus drill 2013 (SARS-CoV-Like threat). In the frame of the EC-funded EpiSouth Plus Project-WP5. Organized by Institute of Health Carlos III-Spain, with the contribution of WHO-HQ; C3-DG SANTE, ECDC and The CCAES-MoH; involving 20 Mediterranean EU and Non-EU Countries.
<https://www.episouthnetwork.org/content/episouth-plus-nautilus-simulation-exercise-2-3-october-2013>
- 3) FULA SIMEX drill 2018. (Monkeypox) - Spanish national exercise. CCAES- Ministry of Health. Spain.
- 4) NEDSTTX 2015; materials from the Global Health Preparedness Programme of the Norwegian Institute of Public Health.
- 5) WHO Simulation Exercise Manual. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.
- 6) European Centre for Disease Prevention and Control. Handbook on simulation exercises in EU public health settings – How to develop simulation exercises within the framework of public health response to communicable diseases. Stockholm: ECDC; 2014.

Annex 6. Factsheet for participants

JA TERROR TABLETOP SIMULATION EXERCISE **Madrid, 15th June 2023**

Chemical nerve agent: VX

VX is the only significant nerve agent created since World War II. It was used during Iran-Iraq war. It is considered a weapon of mass destruction by the United Nations. The production and storage of VX was prohibited by the Chemical Weapons Convention of 1993.

- **Symptoms:**

- Small doses: Skin (fasciculation at site, burns, sweating in the area), eyes (miosis, eye pain), frontal headache, nausea, vomiting, diarrhoea and generalized weakness, rhinorrhoea, nasal hyperaemia, cough, pressure in chest...
- Large doses: breathlessness, convulsion, paralysis, respiratory failure, death.

- **Transmission:**

- Respiratory-Inhaled (Spray): after releasing VX into the air, people can be exposed through skin contact, eye contact or inhaling the VX vapor.
- Oral (Liquid): ingestion
- Contact: skin or mucosa membranes (eyes). Contaminated surfaces: VX could remain for days to months in contaminated surfaces.

VX is odourless and tasteless, a colourless oily liquid, slow to evaporate, and due to its low volatility and viscosity it clings to an area, making it potentially dangerous. It is extremely deadly in a liquid state and even more deadly if it reaches a gaseous/aerosol state.

- **Onset of symptoms:**

- Respiratory- inhaled (Spray): manifest in a matter of seconds or minutes
- Oral (liquid): 15 min – 2h

- **Contact:** depends on skin thickness, skin permeability and temperature. Symptoms and signs appear from 0.5 to 18 hours.

The effects that occur on memory, fatigue, irritability and nervousness may persist for up to 6 weeks after recovery from exposure.

- **Case fatality**

Depends on the dose, transmission, and the antidote administration speed.

- The lethal dose for humans is estimated to be around:

- 10 milligrams through skin contact

- 30 to 50 mg-min/m by inhalation

- Disabling effects occur within 1 to 10 minutes, and fatal effects can occur within 4 to 42 hours.

- Death usually occurs within 15 minutes after absorption of a fatal dose.

- **Treatment**

Specific antidotes:

- **Atropine:** Effective for muscarinic effects; it does not reverse the nicotinic effects.
- **Pralidoxime:** Severe intoxication with nicotinic or central nervous system manifestations.
- **Obidoxime Chloride:** Less toxic and more effective alternative to pralidoxime. IM or IV injection.
- **HI-6:** an alternative oxime, has excellent regenerative action on acetylcholinesterase

- Oral/parenteral exposure: inducing vomiting is contraindicated. Gastric lavage. Activated carbon.

- Seizures: Benzodiazepine IV; Diazepam or lorazepam.

- Acute lung injury: Mechanical ventilation may be necessary.

- Hypotension: Isotonic fluid. If hypotension persists, administer dopamine or norepinephrine.

Annex 7. Inject template

SIMULATION EXERCISE / SIMULATION EXERCISE / SIMULATION EXERCISE

INJECT #			
From		To	
Solving time	X min		
Content			

Questions for the three sectors to be responded:

What are the actions to put in place when such an event is going to happened in your country to prevent any terror attack and or to mitigate its impact in case it happens?

Please, insert your answer here:

Annex 8. Master Events List (MEL) timeline

	MAIN EVENT LIST					
Part I						
INJECT	TIME INJECT DELIVERY	Solving time	Content	Public Health	Security	Civil Protection
Kick Off. Q	9:00	25'	Video EuroCup	X	X	X
1	9:25	25'	First cases	X		
2	9:30	25'	Security event		X	X
3	9:50	20'	PH Lab info	X		
4	9:55	15'	Security further investigation		X	
5a	10:10	20'	Health Security Com.	X		
5b	10:10	20'	International Sectoral Meeting			X
5c	10:10	20'	International Sectoral Meeting		X	
	10:30	20'	Coffee break			
6	10:50	10'	Twitter	X	X	X
7	11:00	30'	Security GPS		X	
8a	11:30	20'	Additional lab info-lab químicos		X	
8b	11:30	20'	Additional lab info-environmental lab	X		
8c	11:30		Agent	X	X	
	11:50	1 h	Plenary discussion	X	X	X
	13:00	1 h	Lunch			
Part II						
9	14:00	5'	Final Cup News	X	X	X
10a	14:05	30'	Hungary	X	X	X
10b	14:05	30'	Rest of countries	X	X	X
11a	14:15	30'	Norway	X	X	X
11b	14:15	30'	Malta	X	X	X
	14:45	30'	Plenary discussion	X	X	X
12	15:15	3'	Final Inject Statement	X	X	X
	15:18	1 h 12'	Hot debriefing	X	X	X
	16:30		END OF TTX	X	X	X

Annex 9. Facilitators guide

This Tabletop Exercise condenses a complex situation, allowing for certain exercise artificialities, in the interest of achieving exercise objectives within the scheduled timeframe. The scenario is based around a fictional event and it is designed to generate discussion and does not reflect any current threat.

The scenario has been designed to highlight the roles of actors from the three different sectors in different countries and to have every participant consider the threat as affecting their own country and can trigger a response in their organization. Thus, when the scenario documentation describes “your organization” or “your sector” participants are invited to consider the scenario as it relates to their organization in their country. It is assumed that exercise players will respond in accordance with their existing countries’ plans, procedures, and policies. In the absence of applicable plans, procedures, or policies, players will be expected to apply individual and/or team initiative to satisfy response requirements.

Expectations

- No agency or institution is fully prepared for all types of events or threats. Open and honest dialogue and feedback are encouraged throughout the exercise.
- Participants should feel free to ask questions of one another and challenge each other’s assumptions.
- There are no right or wrong answers. No one will be criticized for what they say during the exercise.
- A baseline of cross sectoral coordination picture in the region will be developed based on the exercise outcomes and all other deliverables produced so far within WP6.

Facilitators’ dynamics during the exercise

- Each table will have one facilitator responsible for distributing the injects to the participants at the right time (once the TTX manager ask for it) and keeping the discussion’s time for each inject.
- In each inject, the facilitator should first let participants discuss freely within their own country keeping an eye on the time.
- When relevant, the facilitator should allow for some minutes round table discussion at the end of each inject. This round table discussion will aim to wrap up key points, clarify certain answers or ask additional questions. Special attention should be paid in not revealing any additional information that has not yet been explicitly included in the injects’ text. The facilitator will make notes based on the key points discussed in the table.
- The facilitator will aim to keep the round table discussion with the right focus (Cross sectoral coordination and information sharing at strategic level).
- At the end of the exercise, the facilitator will gather all the handwritten notes provided by the participants in each of the injects.
- If a certain sector is missing in one country, injects addressing that specific sector will not be distributed to the country. As an artificiality, participants from that country could liaise and discuss with a representative of that missing sector from other country sitting on the same table.

Annex 10. Pictures



