



Deliverable D6.3 Desk research

Review of the existing framework to assess cross-sectoral and cross-border cooperation in preparedness and response to biological and chemical terror attacks

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Consortium – List of partners

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2	<u>Sciensano</u>	<u>SCIENSANO</u>	<u>Belgium</u>
3	<u>NCIPD</u>	<u>NATIONAL CENTER OF INFECTIOUS AND PARASITIC DISEASES</u>	<u>Bulgaria</u>
4	<u>SUJCHBO</u>	<u>STATNI USTAV JADERNE, CHEMICKE A BIOLOGICKE OCHRANY VVI</u>	<u>Czech Republic</u>
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9	<u>NNK</u>	<u>NEMZETI NEPEGESZSEGUGYI KOZPONT</u>	<u>Hungary</u>
10	<u>INMI</u>	<u>ISTITUTO NAZIONALE PER LE MALATTIE INFETTIVE LAZZARO SPALLANZANIISTITUTO DI RICOVERO E CURA A CARATTERE SCIENTIFICO</u>	<u>Italy</u>
11	<u>RIVM</u>	<u>RIJSINSTITUUT VOOR VOLKSGEZONDHEID EN MILIEU</u>	<u>Netherlands</u>
12	<u>NIJZ</u>	<u>NACIONALNI INSTITUT ZA JAVNO ZDRAVJE</u>	<u>Slovenia</u>
13	<u>MoH-ES</u>	<u>MINISTERIO DE SANIDAD</u>	<u>Spain</u>
14	<u>FOHM</u>	<u>FOLKHALSOMYNDIGHETEN</u>	<u>Sweden</u>
15	<u>DH</u>	<u>DEPARTMENT OF HEALTH</u>	<u>United Kingdom</u>
16	<u>MoH-MT</u>	<u>MINISTRY OF HEALTH - GOVERNMENT OF MALTA</u>	<u>Malta</u>
17	<u>IPHS</u>	<u>INSTITUT ZA ZASTITU ZDRAVLJA SRBIJEDR MILAN JOVANOVIC BATUT</u>	<u>Serbia</u>

Abbreviations

CBRN	Chemical, biological, radiological & nuclear
DRM	Disaster risk management
EU	European Union
IPCR	Integrated political crisis response
MS	Member State
UCPM	Union's Civil Protection Mechanism
WHO	World Health Organisation

Impact summary

- In July 2023, an online systematic review was launched, resulting in the selection of 54 documents referring to intersectoral collaboration that could be applicable in the context of a chemical or biological terrorist attack. These documents were then analysed to extract elements that could help to achieve the research objective (Assess cross-sectoral collaboration between health, security and civil protection sectors to face a chemical or biological terror attack, through identification of EU legal framework and publicly available guiding documents, good practices and lessons-learned from exercises and incidents).
- During the systematic review, gaps and challenges, recommendations, good practices, lessons learned, legal acts and guidance documents were identified in the field of intersectoral collaboration. These are set out in this report.
- The main point to note is that intersectoral collaboration is an important issue in crisis management, due in particular to the complexity of crisis management in general and particularly in the context of chemical or biological terrorism.
- Efforts are being made to improve cross-sectoral collaboration at both national and international level. The EU in particular, through different initiatives, is becoming a key player in crisis preparedness and response, particularly when it comes to cross-border threats.
- This report will provide elements of reflection for task 6.4 of Joint Action TERROR, which aims to develop a guiding document on cross-sectoral collaboration.

Executive summary

This desk research (Task 6.3.1) aims to review the existing framework to assess cross-sectoral and cross-border collaboration in the case of a chemical or biological terror attack. Together with the previously conducted survey (Task 6.1.1), it will complement into the mapping activities (described in task 4.2 of WP 4) that aims to describe existing networks, their main purpose, their activities within the area of biological and chemical terror attacks and the collaboration between networks..

The systematic review led to the selection of 54 documents based on an initial list of 2748 documents coming from four different databases (Publication office of the European Union, Eurlex, Google Scholar and Scopus). The analysis of the selected documents resulted into the identification of 31 key gaps or challenges, 25 key recommendations, 26 good practices at national level and 16 at European level, 5 lessons learned, 5 European legal acts and 4 guiding documents. Each of these elements should be directly linked to intersectoral collaboration.

However, it should be borne in mind that this report only reflects the content of the documents analysed, so the lists of items identified cannot be considered exhaustive.

One of the difficulties of this research concerns access to all publicly available data on the subject. This is due in particular to the choice of search language (English), which may prevent access to a number of national documents that would only be available in their language of origin (when other than English). It is also due to the fact that, given the terrorist nature of the subject, related information may be considered sensitive and access to it will therefore be restricted for the public. Another research difficulty concerns the specific nature of the research subject. Chemical and biological terrorist attacks are rare, and cross-sectoral collaboration (between public health, civil protection and law enforcement), while crucial, is only one element in the complex management of this type of event. There is little recent specific literature on the subject. It was therefore necessary to extrapolate some of the information into a broader spectrum of crisis management.

Despite its limitations, this report provides an overview of the structures, issues and problems associated with intersectoral collaboration. Above all, it offers food for thought and examples of solutions for dealing with the challenges of cross-sectoral collaboration in the event of a chemical or biological terrorist attack. These examples, challenges and possible solutions will be compiled into concrete recommendations in a subsequent guiding document produced by JA TERROR WP6 (Task 6.4).

Main outcomes

The analysis of the 54 documents selected through this desk research give the following main outcomes:

With regard to the gaps and challenges concerning cross-sectoral and cross-border collaboration, the points that were most often expressed in the documents analysed were :

- The complexity of crisis response structures
- Differences in terms of understanding and vision of risks and threats
- The adaptability of structures in the face of changing threats
- Integration of good practices/guidance's across sectors and political levels
- Harmonisation of procedures across sectors and political levels
- The allocation of roles and competences.

In terms of the recommendations identified, the most recurrent topics concerned :

- The development of a holistic vision of preparedness and response, this includes an all-hazard approach, multisectoral and multilevel approach
- The improvement of information exchange practices

In terms of good practice at national level, 26 good practices from 10 different countries were identified. At European Union level, 14 good practices were identified.

Analysis of the documents also made it possible to identify 6 legislative acts at European level with articles referring to cross-sectoral collaboration. These texts concern in particular the functioning of the European Union, the UCPM, the IPCR and public health policies.

In addition, the analysis highlighted 4 guidance documents that play an important role in improving cross-sectoral collaboration. Those documents are; the Sendai Framework for Disaster Risk Reduction (2015-2030), The EU Security Union Strategy, the International Health Regulations and the Action Plan to enhance preparedness against chemical, biological, radiological and nuclear security risks.

1 Introduction

The European Commission co-funds the Joint Action TERROR (JA TERROR), whose main objectives are to address gaps in health preparedness and to strengthen cross-sectoral work with security, civil protection and health sectors response to biological and chemical terror attacks. JA TERROR involves 34 affiliated entities from 17 European partner countries of which 15 are European Union/European Economic Area (EU/EEA) Member States: Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, Malta, Netherlands, Norway, Slovenia, Spain, and Sweden. Additionally, one candidate country, Serbia, and one ex-Member State, the United Kingdom (UK), are also part of the JA. JA TERROR is coordinated by the Norwegian Directorate of Health.

JA TERROR is structured in eight work packages (WP). WP6 “Cross-sectoral collaboration: Security, civil protection and health” is led by the Ministry of Health in Spain and co-led by the National Institute of Public Health, Sciensano, in Belgium. The overall objective of WP6 is to contribute to the improvement of national structures, plans and operational procedures regarding cross-sectoral collaboration in preparedness and response to biological and chemical terror attacks with a potential cross-border impact.

In the framework of the general objectives of WP6, the desk research of task 6.3.1 together with the survey of task 6.1.1, the expert interviews of task 6.1.2 and the workshops of task 6.3.2 will contribute to task 6.4 on developing a guiding document on national cross-sectoral collaboration for information sharing on risk/threat assessments and joint incident management, between health, civil protection and security from the strategic to the operational level.

For this deliverable 6.3 an online search based on a systematic approach was conducted. The research objective for this systematic review was to “Assess cross-sectoral collaboration between health, security and civil protection sectors to face a chemical or biological terror attack, through identification of EU legal framework and publicly available guiding documents, good practices and lessons-learned from exercises and incidents.”. In order to answer this research question, more than 2000 documents were identified, and after several steps of selection, 100 documents were read and 54 documents were included in this report. During the analysis of the documents we attempted to identify a number of key elements. namely (1) Gaps and challenges, (2) Recommendations, (3) Good practices, (4) Lessons learned (5) Applicable legislation in the EU, (6) Applicable guiding documents. These key elements have been compiled and, in some cases, linked to each other.

2 Methodology

2.1 Systematic review

For this task a systematic search was conducted in the following online databases: Publication office of the European Union, Eurlax, Google Scholar and Scopus. Combinations of predetermined key terms were used for the performing of the systematic search using the Boolean logic. Table 1 shows the list of key terms that have been used for the search. The different combinations used can be found in annex 1.

Table 1: Key terms

Key terms	
cross-sectoral	cross-border
crisis	strategic
collaboration	health
preparedness	security
response	civil protection
CBRN	terrorism

The choice of key terms was made by consensus among members of WP6 partners participating to this task, so as to obtain a result consistent with the research question and the desk research objectives.

Besides the systematic search a limited number of documents that weren't among the results of the systematic search but considered as relevant for the review by the readers has been included for the analysis, based on the results of the primary search. These documents are the result of a secondary search that consisted of a random online search using the list of key terms and the identification of documents of interest during the analysis of the previously identified documents.

2.2 Selection criteria

For the selection of the documents to be analysed for the research a 3-steps methodology has been used.

For the first step basic criteria were applied directly into the databases, when possible. The first criterion in this step concerns the period in which the document was published. It has been decided to include only documents published between 2013 and 2023. It was decided not to go beyond 2013 given that the preparedness and response landscape has changed enormously in recent years following crises such as COVID 19, Russia's invasion of Ukraine and the wave of terrorist attacks in Europe. It has also been noticed that the 10-year period was sufficient to gather enough relevant documents for our research. The second criterion at this stage concerns the language of the document. For practical reasons and in order to keep the workload reasonable, only documents written in English, the most widely understood language in the EU and working language of most projects initiated by the European Commission, have been selected for the analysis. The choice of language is also based on the fact that, since the representation of countries within WP6 and the Joint Action Terror in general does not cover all EU countries, there could be a bias in the representation of national documents that can be translated. Furthermore, the integrity of the reference would not be guaranteed as an intermediary would be required to translate the document and access to the original content would not be possible for all readers.

For the second step, a chart was used to collect all the results of the database searches after the first filter step. The first part of the second step involved removing all possible duplicates present in the list. After that, documents that were outdated versions of other documents present in the list have been removed. In other words, it has been verified that each document was the most up-to-date version available. Finally, on the basis of the title and abstract of each document, a verification was made to assess if the content of the document corresponded to the scope of the research. Documents not dealing with the EU or EU Member States, documents not concerning crisis management and purely technical documents were excluded.

The third step consisted of a quick analysis of the full text content of the remaining documents to see if it corresponded sufficiently to the research question. Each document was evaluated by two or three members of the team. Each document was given a "relevant", "not relevant" or "undetermined" rating by the readers. The ratings were based on the covering or not of the document of eleven different subjects (Annex 2) that are related to the research. On the basis of these ratings, a final decision was taken on the inclusion of the documents in the research. Documents marked "relevant" were retained for analysis and documents marked "not relevant" were excluded. For documents with contradictory or "undetermined" ratings, an additional reading was carried out in order to make a final decision on the inclusion of these documents for the analysis. PRISMA Flow Diagram from the PRISMA 2020 statement was included to facilitate the visualization of the selection process.

2.3 Data extraction and analysis

For the extraction of the data from the selected documents, six categories of elements have been identified to be included in this report: (1) Gaps and challenges, (2) Recommendations, (3) Good practices, (4) Lessons learned (5) Applicable legislation in the EU, (6) Applicable guiding documents.

The elements from each document corresponding to the six categories were extracted and sorted by category. After that, an iterative process was used to group similar elements. This process was applied to each category separately.

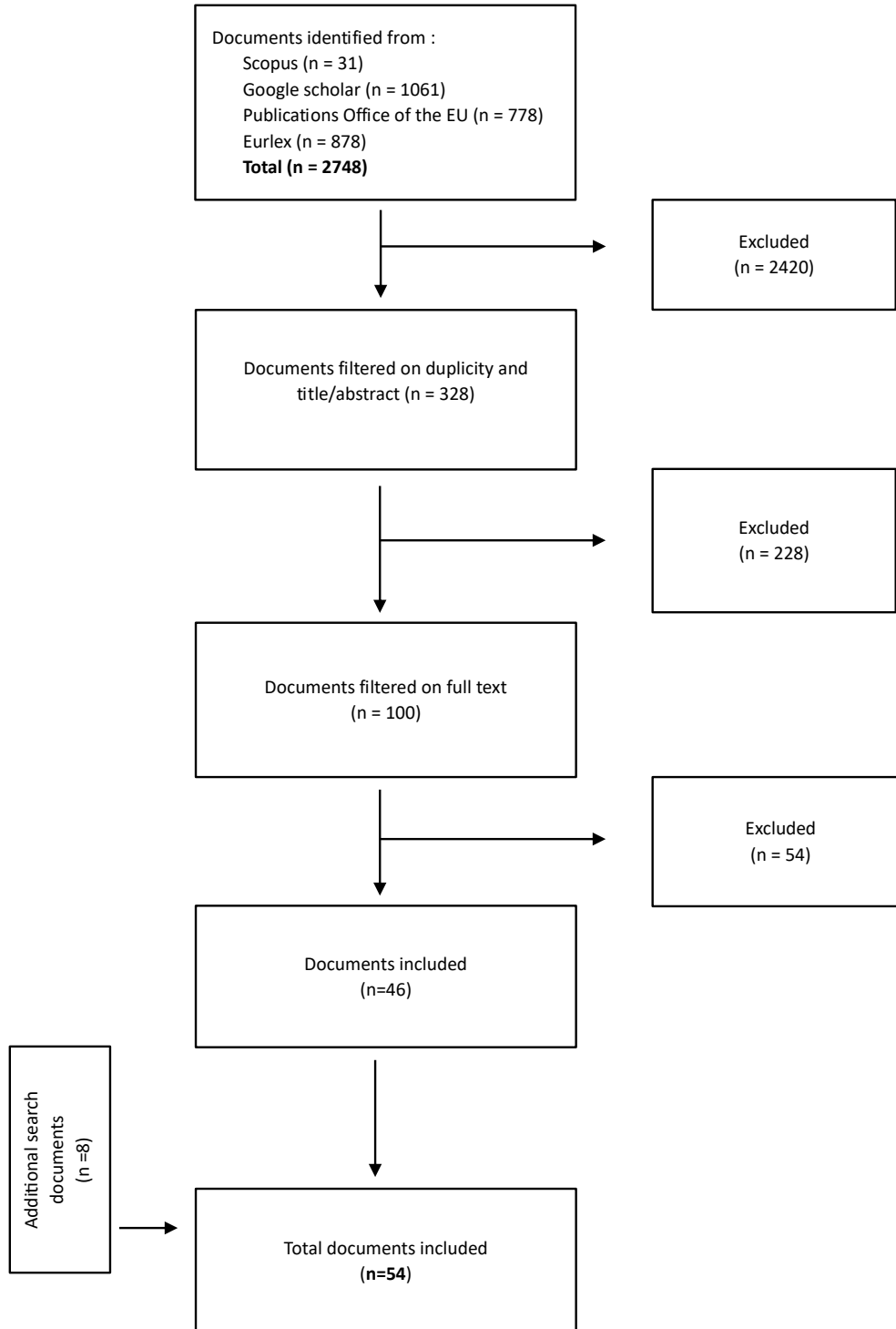
For category (1), a list of key gaps/challenges was drawn up on the basis of the elements identified. For category (2), in a similar process, a list of key recommendations was drawn up on the basis of the elements identified. Those key gaps/challenges and recommendations were given a relevancy grade from A to AAA+ based on the number of occurrences. Grade A corresponds to 2 to 5 occurrences, grade AA to 6 to 9 occurrences, grade AAA to 10 to 13 occurrences and grade AAA+ to 14 or more occurrences. The number of occurrences corresponds to the total number of documents mentioning these elements and not the total number of times these elements were mentioned in all the documents. For categories (3) Good practices and (4) Lessons learned, we have drawn up a list of elements that are related to the key elements in categories (1) and (2). For categories (5) Applicable legislation in the EU and (6) Applicable guiding documents, the legal acts and guidance documents that have been clearly identified in the documents analysed, whose scope includes the field of the research question and containing articles or points directly referring to cross-sectoral collaboration, have been compiled. An explanation on the referred legal acts and guiding documents, with comments on the articles directly referring to cross-sectoral collaboration can be found in Annexes 6 & 7. The list of documents is not intended to be an exhaustive list of legal acts or existing guidance documents that may have an impact on cross-sectoral collaboration between the health, civil protection and law enforcement sectors in the event of a chemical or biological terrorist act.

3 Results

3.1 Systematic review

The initial search of the systematic review resulted in a number of 2748 documents. After the first step of selection, applying basic criteria, 328 documents remained. During the second selection step 228 documents were excluded based on the title and abstract and the presence of duplicates, resulting in a 100 remaining documents. From those documents 54 were excluded during the third step based on the full text. Next to the systematic search, a secondary search was carried out to allow documents seen as particularly relevant by the readers and that had not appeared in the results of the systematic search to be added to the list of documents to be analysed. This secondary search resulted in the selection of 8 additional documents for the analysis. Those 8 documents were added to the remaining 46 resulting in a total of 54 documents to analyse, the list of the selected documents can be found in Annex 3. The Prisma flowchart in Figure 1 illustrates the selection process of the documents.

Figure 1: Prisma flowchart



3.2 Identification of gaps and challenges

The analysis enabled us to identify 31 key gaps/challenges, which we have classified into 7 topics to make them easier to understand. Each of these gaps/challenges was assigned a relevance grade based on the number of documents referring to the gap/challenge.

Table 2 shows that 3 of the elements received the highest grade (AAA+) complexity of crisis response structures, different visions on the threat among Member States and lack of common understanding. 4 other items received the second highest grade (AAA). For the remaining 24 of the 31 key gaps/challenges, 15 obtained the grade AA and 9 the grade A.

Based on the list in Table 2, the key gaps and challenges that received the most attention in the documents analysed are thus the following :

- **Complexity of crisis response structures (A.1)** : This means that the response to a crisis, depending on its nature and scale, requires action at operational, strategic and political levels involving a number of stakeholders. For an optimum response to a crisis, these actions need to be coordinated as effectively as possible. The more complex a crisis, as in the case of a chemical or biological terrorist attack, the more stakeholders will potentially be involved in the response, which could make it more difficult to coordinate the various actions.
- **Different visions on the threat among EU Member States (B.4)** : EU Member States have different sensitivities to the chemical or biological terrorist threat. This can be explained by various factors such as, for example, the historical factor (the country has already faced this type of attack, plot), the geopolitical factor (international relations, internal political situation, borders, etc.), the presence of other types of threats or risks on the territory, current capacity and expertise in the field, political structure (risk management and response may be a national, regional or local competency depending on the country's political structure). These factors can influence the willingness to invest resources, willingness to collaborate at international/transnational level, preferred approach, prioritization of the issue, etc..
- **Lack of common understanding (E.1)** : This includes the fact that some actors may have a different understanding or interpretation of certain aspects of the crisis or crisis management. It also includes the fact that some actors may not be able to understand certain actions or decisions of other actors due to a lack of knowledge of their motivations, competences, capabilities or structures.
- **Adaptability of the structures to the evolution of the threat (A.2)** : Society is constantly evolving, partly due to technological advances that can have an impact on the way we live. These developments are leading to both new solutions and challenges for crisis management. These developments can also lead to changes in the methodology and means used to carry out terrorist attacks. Crisis management structures must be able to adapt to these changes in order to take advantage of these new opportunities and respond to new types of threats and challenges in the best possible way. However, it has been observed that crisis response structures sometimes find it difficult to adapt to these changes, or that the adaptation processes are slow compared to the pace of the evolution.
- **Interlinkage and overlap of roles and competencies (A.3)** : Given the potential complexity and scale of a chemical or biological terrorist attack, it is highly likely that different sectors and political levels will be involved in the response to the event. Each of these actors will have a role to play, but it is possible that certain aspects of the response will be linked to or fall within the competencies or role of several actors. If not addressed correctly, these interlinkages or overlaps may lead to confusion or tension.

- **Lack/inconsistency of integration of recommendations/guidance's across political levels (D.1)** : Many recommendations and guidance's have already been issued in the past, including on the subject of cross-sectoral collaboration. However, the analysis of the documents has showed that these recommendations and guidance's are not always taken into account or integrated in the same way at the various political levels.
- **Lack of harmonization across sectors and decision levels (D.2)** : The analysis of the document showed that certain practices or procedures may be different or applied differently depending on the sector or political level. This can lead to interoperability and coordination issues or confusion during the response to a crisis.

Annex 4 provides the list of selected references behind each gap/challenge for further information.

If we look at the topics, the ones that are referred to the most are (A) structure, (B) policy-vision and (E) Transparency. These are therefore the topics that should attract the most of our attention. The theme with the lowest overall score is (F) training. Nevertheless, it is important to stress that the lower scores, both for the topics and for the individual gaps/challenges, do not mean that these elements do not merit our interest. Indeed, the presence of these elements in the list is already proof of the need to pay attention to them.

Table 2: Identified gaps and challenges

Theme	Gap/challenge	code	Relevancy
A. Structure	Complexity of crisis response structures	A.1	AAA+
	Adaptability of the structures to the evolution of the threat	A.2	AAA
	Interlinkage and overlap of roles and competencies	A.3	AAA
	Formalisation of coordination/collaboration	A.4	AA
	Lack of interoperability of structures and procedures (nationally and internationally)	A.5	AA
	DRM structures vary among MS's	A.6	AA
B. Policy-vision	Different visions on the threat among MS's	B.1	AAA+
	Work in silos	B.2	AA
	Lack of holistic vision on the threat	B.3	AA
	Different visions on the threat among Actors	B.4	AA
	Clear leadership in crisis response	B.5	A
	Reluctance of being coordinated	B.6	A
C. Capacity	Replacement of experienced/specialized staff	C.1	AA
	Lack of resources dedicated to collaboration	C.2	AA
	Lack of use of joint evaluation and assessment tools	C.3	AA
	Inefficient use of existing resources, tools and mechanisms for collaboration	C.4	A
D. Integration	Lack/inconsistency of integration of recommendations/guidance across levels	D.1	AAA
	Lack of harmonization across sectors and decision levels	D.2	AAA
	Ownership of the processes	D.3	A
	Inconsistency of external collaboration across levels	D.4	A

Theme	Gap/challenge	Code	Relevance
E. Transparency	Lack of common understanding	E.1	AAA+
	No clear view on each other's competencies/mandates	E.2	AA
	Trust among actors	E.3	AA
	No clear view on each other's activities	E.4	A
	No clear view on each other's capacities	E.5	A
F. Training	Need for more transversal exercise/training activities at sectoral level	F.1	AA
	Need for more transversal exercise/training activities at political level	F.2	A
	Need to formalize use of results from exercise/training activities	F.3	A
G. Information sharing	Access to available information	G.1	AA
	Harmonization of information exchange practices	G.2	AA
	Formalization of information sharing	G.3	AA
	Data management	G.4	A
	Quality and suitability of shared information	G.5	A

3.3 Identification of recommendations

25 key recommendations have been identified during the analysis of the documents. In most cases, as developed in Table 3 below, these key recommendations can be refined into sub-recommendations.

Of the 25 key recommendations, 2 key recommendations received the grade AAA+. These 2 key recommendations are :

- **Developing a holistic view for preparedness and response (RA)** : Developing a holistic view for preparedness and response means taking into account as many factors as possible when conducting activities. This can be achieved by applying multi-hazard, multi-disciplinary, multi-stakeholder and multi-level approaches that take account of the entire preparedness and response cycle. Multi-hazard means being able to take into account different contexts, means and agents for a chemical or biological terrorist attack . For the multidisciplinary part, it means taking into account the possible involvement of different disciplines depending on the incident, as well as the coordination of the different disciplines. The multi-stakeholder approach concerns the various institutions, services, organisations, etc. that could play a role or be impacted in preparedness or response to an incident, or by the incident itself. The multi-level approach concerns the different political levels that may be involved in this type of incident, going from the local level to the international level.
- **Improvement of information exchange practices (RB)** : It is understood by this, the formalization of information exchange structures and means, the systematization of the sharing of certain type of information and having well-defined and identified information channels.

In addition, 6 key recommendations received the grade AAA. Of the remaining 17 key recommendations, 12 were graded AA and 5 were graded A.

Annex 5 provides the list of selected references behind each recommendation for further information.

These key recommendations are expressed generically. At this stage, they are mainly suggestions or points of attention that could help to improve cross-sectoral and cross-border collaboration. They are not, therefore, concrete measures that can be implemented directly.

It should also be noted that the subjects of the recommendations most often encountered do not necessarily correspond to the topics of the gaps and challenges most often encountered during the analysis of the documents.

Table 3: Identified key recommendations

Main recommendation	Sub-recommendations	Code	Relevance
Developing a holistic view for preparedness and response	<ul style="list-style-type: none"> - all hazard approach - multidisciplinary approach - multistakeholder approach -multilevel approach 	RA	AAA+
Improvement of information exchange practices	<ul style="list-style-type: none"> - formalize information sharing - systematize information sharing - create clear picture of information channels 	RB	AAA+
Fostering use of assessment tools and results		RC	AAA
Define means to foster interoperability of structures and procedures		RD	AAA
Clarification of roles and responsibilities of different actors	<ul style="list-style-type: none"> - at different levels, from local to international 	RE	AAA
Establishment common research, training and capacity building across sectors		RF	AAA
Give the EU-level a more central role in preparedness and response	<ul style="list-style-type: none"> - greater cross-border coordination role - centralisation of information - centralized assessments - coordination and harmonization of training activities 	RG	AAA
Formalisation of cross-sectoral collaboration	<ul style="list-style-type: none"> - integration of cross-sectoral aspects into legislation - integration of cross-sectoral aspect in procedures/plans 	RH	AAA
Integration of collaboration across different levels	<ul style="list-style-type: none"> - from local to international - from operational to strategic 	RI	AA
Increasing accountability and visibility of activities and results		RJ	AA
Improve accountability of previous experiences	<ul style="list-style-type: none"> - better integration of lessons learned - foster the exchange of experience across sectors and levels 	RK	AA
Continuous improvement strategy		RL	AA
Creation of a shared vision across actors		RM	AA

Main recommendation	Sub-recommendations	Code	Relevance
Fostering cross-border exercise activities		RN	AA
Integrate scientific and private sector		RO	AA
Establish liaison mechanisms	<ul style="list-style-type: none"> - exchange of personnel as liaison officers - creation of a liaison network - having well defined contact points 	RP	AA
Building on existing resources and tools	<ul style="list-style-type: none"> - avoid duplication of work and allow reuse of available resources - improvement of existing structures/tools instead of creating new ones 	RQ	AA
Increasing knowledge regarding laws and regulations		RR	AA
Ensure proper financing for cross-sectoral collaboration activities/structures	<ul style="list-style-type: none"> - finding diversified funding sources - identify synergies to lower costs - predict financial needs 	RS	AA
Applying common practices	<ul style="list-style-type: none"> - harmonization of procedures - standardization of basic procedures 	RT	AA
Establishment of a multidisciplinary entity	<ul style="list-style-type: none"> - taskforce, unit, centre - at operational level - at multiple levels 	RU	AA
Tailoring of joint exercises	<ul style="list-style-type: none"> - adapt activities to targeted audience - adapt activities to specific needs and gaps 	RV	A
Improvement of the quality of information shared	<ul style="list-style-type: none"> - verification of information 	RW	A
Establishment of a common language		RX	A
Fostering (scientific) research on cross-sectoral/multidisciplinary dimension		RY	A

3.4 Identification of good practices

The analysis of the documents has resulted in the identification of 40 good practices directly related to cross-sectoral collaboration in preparedness and response. These good practices have been divided into two groups. Good practices at national level (Table 5) and good practices at European level (Table 6).

At national level, 26 good practices were identified from the documents analysed. These good practices concern 10 European countries in particular and one good practice applies to multiple European countries in a general way.

If we can establish a link between good practice at national level and the gaps and challenges in chapter 3.2, it can be noted that the identified good practices are most often linked to the topics of structure (e.g. creation of specific committees for coordination, verification of interoperability), policy-vision (e.g. involvement of different sectors in activities, common risk assessments) and capacity (e.g. creation of coordination centres or mechanisms, joint assessments). The issues least concerned by good practices are training and information sharing. One element that may partly explain the difference in the number of links between the topics of structure and policy-vision and good practices is because it has a more generic dimension so it makes it easier to link them to the identified good practices, on the other hand topics such as training and information sharing focus on more specific parts of preparedness and response so it lower the possibility to link them with many good practices. If we carry out this time the exercise of linking the good practices at national level to the recommendations in chapter 3.3. The recommendations that can be linked to the most good practice are the recommendations on developing a holistic vision (RA) (e.g. multi-stakeholder committees/groups), formalisation of cross-sectoral collaboration (RH) (e.g. incorporation of collaboration into law) and the creation of a shared vision across actors (RM) (e.g. exchange activities, common risk assessments). Once again, these are recommendations of generic nature so it makes them easier to link to the identified good practices.

Table 4: Identified good practice at national level

#	Good practices at national level	Country
1	Under the responsibility of the Security Committee, Finland developed a Security Strategy for Society which is a government resolution that harmonises the set of national principles regarding preparedness and guides the preparedness actions taken by the administrative branches at different levels.	Finland
2	The UK has developed several strategies such as the Biological Security Strategy and CONTEST strategy on counter terrorism. These strategies : - Are developed in such a way as to be compatible with each other and with international guidelines. - Are developed in collaboration with different departments at different levels - Are politically validated - Are regularly reviewed and updated - Include elements of cross-sectoral collaboration - Include elements of international collaboration	United Kingdom
3	Plans in Norway and the United Kingdom describe how stakeholders have been consulted in the development of the plans.	United Kingdom - Norway
4	Conferences that engage scientists, practitioners and policymakers can act as a good mechanism to bridge science and practice.	Multiple countries
5	In Sweden the Swedish Forum for Bio preparedness Diagnostics (FBD) was created to foster collaboration among four agencies in order to improve Sweden's bio preparedness.	Sweden
6	In the field of health threats, Belgium set up the multi-stakeholder Risk Assessment Group (RAG) that gives the opportunity to different stakeholders to exchange information (horizontally and vertically) and meet on a regular basis. This RAG can also issue regular rapid risk assessments.	Belgium
7	In Belgium, plans and procedures are evaluated after each deployment or when needed.	Belgium
8	In Lithuania a multi-hazard risk assessment is made at national level and regularly updated. In addition sectors can conduct their own risk assessments.	Lithuania
9	Lithuania has a Government Emergency Commission which is a multisectoral body that aims to ensure the interoperability of preparedness planning and coordination between sectors.	Lithuania

#	Good practices at national level	Country
10	The Lithuanian State Emergency Management Plan is multihazard and clearly outlines lead and supporting institutions for these threat types.	Lithuania
11	In Lithuania a multi-sectoral emergency response coordination mechanism is in place at the state and municipal levels with clearly defined roles and responsibilities and triggers for action.	Lithuania
12	In Lithuania a structured emergency exercise management programme is in place with routine multisectoral exercises implemented which involve relevant sectors.	Lithuania
13	In Lithuania a mechanism for multisectoral collaboration between public health and law enforcement is set by the Law on the Civil Protection and legal acts.	Lithuania
14	The Benelux Region has undertaken an identification and assessment of cross-border risks across the Benelux countries and the German region of North-Rhine- Westphalia; while this exercise does not influence the outcomes of risk assessments at national level, it offers a reflection on the regional dimension of key disaster risks.	Belgium – Netherlands - Luxemburg
15	Finland uses a comprehensive approach for the implementation of international regulations as laws policies are fully assessed for their conformity with international agreements before ratification. The implementation is monitored and evaluated both at regional and national level and across different sectors through practical exercises.	Finland
16	In Finland multisectoral collaboration is also happening on more specific aspects. For example with the Finish Biosafety and Biosecurity Network which offers a platform for collaboration on biosecurity and biosafety including education activities.	Finland
17	Finland applies a comprehensive and adaptive approach in the sense that the various levels and sectors are involved in drawing up plans and procedures and risk analyses. In addition, the approach allows for the possibility of evaluating plans and procedures on the basis of updated risk analyses and cross-sectoral activities (e.g. exercises).	Finland
18	Finland has set up a multisectoral virtual emergency operations centre that is constantly active, enabling a rapid response the coordination of several sectors at several levels and an efficient use of resources.	Finland
19	In Slovenia the Inter-Ministerial Emergency Planning Committee has the authority to align plans and systems to achieve optimal outcomes. In that regard SOP's have been established and coordinated with different stakeholders.	Slovenia
20	In Serbia resources are mapped in all sectors and updated in real-time. This information is made available electronically.	Serbia



At the European Union level, 14 good practices were identified from the documents analysed. Once again, this is not an exhaustive list, but one that reflects the content of the documents analysed.

With regard to the links with the gaps and challenges identified in chapter 3.2, we note the same trend as for good practices at national level. That is to say, good practices are most often linked to the topics of structure (e.g. coordination systems/committees, use of soft law for formalization), policy-vision (e.g. comprehensive approaches, fostering exchanges between MS's) and capacity (e.g. dedicated mechanisms, funding initiatives). The topics least concerned by the identified good practices are training and information exchange.

On the other hand, for the links with the recommendations identified in chapter 3.3, the trend is different between good practices at national level and at European Union level. In terms of good practices at European Union level, one recommendation stands out from the others: the recommendation on giving Europe a more central role in preparedness and response issues. It's no surprise that this recommendation is the most linked to the identified good practices, considering that the European Union is aspiring to play an increasingly important role in crisis management in general.

Table 5: Identified good practices at EU-level

#	Good practices at EU-level
1	Development of the European Security Strategy by the Council of the EU that in 2016 became the EU Global strategy which gives a common European vision on threats.
2	Establishment of the Permanent Structured Cooperation (PESCO) which formalizes and give a better structure for collaboration among countries.
3	The Council adopted in March 2018 a first batch of 17 projects under the framework of PESCO. While they do not explicitly focus on CBRN response, they will contribute to facilitate cooperation between Member States on issues related to internal or external security issues. They will promote a standardisation of procedures, training and equipment that will indeed contribute to progress towards greater interoperability.
4	The publication of a handbook that includes an overview of EU and international legislation for practitioners by the counter-terrorism team of Eurojust.
5	The CBRN Centres of Excellence (CoE) initiative and it's principles that include a bottom-up approach building on the formation of national CBRN teams, a regional approach and a systematic, all-hazards approach addressing all CBRN risk dimension.
6	Through its functioning the Union's Civil Protection Mechanism (UCPM) enables: <ul style="list-style-type: none"> - The European Commission to focus efforts on areas where a joint European approach is more effective as opposed to separate national actions. - To address CBRN events, considering the low probability of CBRN occurrence at national level, their frequent cross-border elements and the costly response capacities that are required in countering CBRN events, which may thus not be maintained at sufficient level in every single EU Member State. - The funding of civil protection exercises at the European level every year; involving several countries enhances cross-border cooperation in disaster preparedness. - The exchange of experts between countries (11) to foster sharing of knowledge and experience on all aspects of emergency management.
7	Introduction of new monitoring schemes, and the launch of new committees 'to evaluate country capacity to prevent, detect and rapidly respond to public health threats independently of whether they are naturally occurring, deliberate or accidental'.... more recently, a new mechanism has surfaced that attempts to incentivise States to proactively implement preparedness measures.
8	The launching of the Coordinated Annual Review on Defence (CARD). It provides an overview of the defence landscape and facilitates cooperation by identifying collaborative opportunities.
9	The adoption by the European Union of regulations (EU)2019/817 and (EU)2019/818 establishing a framework for interoperability between EU information systems.



#	Good practices at EU-level
10	Activities of the Radicalisation Awareness Network (RAN), connecting frontline practitioners from across Europe with one another, as well as with academics and policymakers in order to share best practices.
11	The establishment of the CBRN Security Advisory Group by the European Commission with the aim to coordinate the work, alongside subgroups for coordinating issues related to CBRN.
13	For a better common understanding, the European Bomb Data System (EBDS), has put together a CBRN Glossary.
14	The adoption of soft law instruments at EU level allowing the development of a comprehensive strategy of cooperation while respecting the division of competences.
15	Cooperation in the Health Security Committee (HSC) resulted in improvement in cross-sectoral training activities due to the involvement of various stakeholders.
16	The creation of the ARGUS system to better coordinate the Commission's response capacity. ARGUS brings together all relevant Commission services to coordinate efforts, evaluate the best options for action and decide on the appropriate response measures during an emergency.

3.5 Identification of lessons learned

The aim of this section is to show the lessons learned from exercises or real incidents that can be applied to cross-sectoral collaboration between law enforcement, civil protection and public health. As with the previous chapters, this list only reflects the content of the documents that have been identified, selected and analysed through the applied systematic desk research; it is not an exhaustive list of existing elements. Table 7 below shows that only a limited number of lessons learned could be identified. In addition to the limitations applicable to the whole document, there are several possible explanations for this low number of identified lessons learned. Firstly, the nature of the information. The low number of incidents involving a chemical or biological terrorist attack or very similar incidents should be taken into account. Information on this type of incident or on exercises concerning these types of incidents is also often considered sensitive, which means that its dissemination is often restricted. Secondly, the research methodology used. The research question for this analysis is fairly precise, which limits the number of possible research results, even if, during the analysis of the selected documents, elements that could apply to the situations referred to in the research question were included to broaden the field of application. It should also be borne in mind that the systematic search did not focus on incident or exercise reports. To this, we can also add the fact that, with regard to cross-sectoral collaboration, the conclusions or lessons expressed are often very generic and do not provide concrete elements for this research.

Table 6: Identified lessons learned

Event/ Exercise	Year	Lessons learned
Toulouse ammonium nitrate disaster (France)	2001	The Toulouse case has shown that communication structures can serve as practical guidance frameworks geared to assist partners to hold constructive discussions, manage conflicts and make decisions. Open discussions allow partners to share and gain knowledge together, resulting in the development of effective coalitions. Such a trust-building approach results in empowering partners to take ownership and share responsibilities.
L'Aquila earthquake (Italy)	2009	The case of the L'Aquila earthquake showed that assumptions are made about science by all stakeholders, and the interpretation of science also depends on the interpreter.
Mataika exercise (Australia)	2018	The exercise highlighted the fact that preparedness to epidemics requires an inclusive and collaborative approach with all first response sectors and across nations, rather than a health-centric, localised approach to planning.
COVID-19 pandemic (EU)	2019-2021	<ul style="list-style-type: none"> Simulation exercises (SimEx) and intra action reviews (IAR) can be of immediate relevance and pertinence for the identification of important gaps, including for cross-sectoral and cross-border collaboration, in the national and international response to an event. This has been shown during the response of the EU to the COVID-19 as number of challenges met during the response had already been identified during SimEx and IAR activities between 2005 and 2018. Member States have recognised the added value of a coordinated European response



3.6 Identification of legislation an additional guidance

This section sets out legal acts applicable in Europe identified during the systematic search and the analysis of the documents and their articles that refer directly to cross-sectoral collaboration that may apply to the preparation of and response to a biological or chemical terrorist attack. This is therefore not an exhaustive list of European legal texts referring to cross-sector collaboration that may apply to the preparation of and response to a biological or chemical terrorist attack. In Annex 6, you will find a short summary and interpretation of these acts and the selected content.

Table 7: Identified legal acts

Act	Article	Content
Consolidated version of the Treaty on the Functioning of the European Union (TFEU)	67(3)	<i>"3. The Union shall endeavour to ensure a high level of security through measures to prevent and combat crime, racism and xenophobia, and through measures for coordination and cooperation between police and judicial authorities and other competent authorities, as well as through the mutual recognition of judgments in criminal matters and, if necessary, through the approximation of criminal laws."</i>
	222	<i>"1. The Union and its Member States shall act jointly in a spirit of solidarity if a Member State is the object of a terrorist attack or the victim of a natural or man-made disaster. The Union shall mobilise all the instruments at its disposal, including the military resources made available by the Member States, to: (a) - prevent the terrorist threat in the territory of the Member States; - protect democratic institutions and the civilian population from any terrorist - assist a Member State in its territory, at the request of its political authorities, in the event of a terrorist attack; (b) - assist a Member State in its territory, at the request of its political authorities, in the event of a natural or man-made disaster. 2. Should a Member State be the object of a terrorist attack or the victim of a natural or man-made disaster, the other Member States shall assist it at the request of its political authorities. To that end, the Member States shall coordinate between themselves in the Council."</i>
Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism	1(1)	<i>"The Union Civil Protection Mechanism ("the Union Mechanism") shall aim to strengthen the cooperation between the Union and the Member States and to facilitate coordination in the field of civil protection in order to improve the effectiveness of systems for preventing, preparing for and responding to natural and man-made disasters."</i>
	3(1)	<i>"1. The Union Mechanism shall support, complement and facilitate coordination of Member States' action in pursuit of the following common specific objectives: (a) to achieve a high level of protection against disasters by preventing or reducing their potential effects, by fostering a culture of prevention and by improving cooperation between the civil protection and other relevant services;"</i>
	13(1)	<i>"1. The Commission shall within the Union Mechanism carry out the following tasks in the field of training, exercises, lessons learnt and knowledge dissemination: (a) set up and manage a training programme for civil protection and emergency management personnel on prevention of, preparedness for and response to disasters. The programme shall include joint courses and a system for exchange of experts, whereby individuals may be seconded to other Member States. The training programme shall aim to enhance the coordination, compatibility and complementarity between capacities referred to in Articles 9 and 11, and to improve the competence of experts referred to in points (d) and (f) of Article 8; (b) set up and manage a training network open to training centres for civil protection and emergency management personnel as well as other relevant actors and institutions on prevention of, preparedness for and response to disasters"</i>

Act	Article	Content
Regulation (EU) 2021/836 of the European Parliament and of the Council of 20 May 2021 amending Decision No 1313/2013/EU on a Union Civil Protection Mechanism	7(1)	"The ERCC shall in particular coordinate, monitor and support in real-time the response to emergencies at Union level. The ERCC shall work in close contact with national civil protection authorities and relevant Union bodies to promote a cross-sectoral approach to disaster management."
	13(1)	"The training and exercises programme shall aim to enhance the coordination, compatibility and complementarity of capacities referred to in Articles 9, 11 and 12, and to improve the competence of experts as referred to in points (d) and (f) of Article 8(1);"
Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health and repealing Decision No 1082/2013/EU	2(5)	"The Commission shall, in liaison with the Member States, ensure coordination and information exchange between the mechanisms and structures established under this Decision and similar mechanisms and structures established at Union level or under the Euratom Treaty whose activities are relevant for preparedness and response planning, monitoring, early warning of, and combating serious cross-border threats to health."
	5(3)	"3. The Union prevention, preparedness and response plan shall, in particular, include provisions on joint arrangements for governance, capacities and resources for: (a) the timely cooperation between the Commission, the Council, the Member States, the HSC and the relevant Union agencies or bodies. The Union prevention, preparedness and response plan shall take into account the services and support potentially available under the Union Civil Protection Mechanism, (f) the health preparedness and response and multi-sectoral collaboration, such as identifying risk factors for disease transmission and the associated disease burden, including social, economic and environmental determinants, following the One Health approach for zoonotic, food and waterborne diseases and relevant other diseases and related special health issues; ..."
	20(1)	"The risk assessment shall be carried out in the case of a threat referred to in Article 2(1) of this Regulation in cooperation with the European Union Agency for Law Enforcement Cooperation (Europol) where the serious cross-border threat to health emanates from terrorist or criminal activity..."
	24(2)	"The Advisory Committee shall have a multidisciplinary membership so that it can advise on public health, biomedical, behavioural, social, economic, cultural and international aspects. ... The representatives of other Union agencies or bodies relevant to the specific threat may participate as non-permanent observers in the Advisory Committee as necessary. The Commission may invite experts with specific expertise with regard to an item on the agenda to take part in the work of the Advisory Committee on an ad-hoc basis, in particular from the countries within whose territory the threat arises. ..."

Act	Article	Content
Regulation (EU) 2021/836 of the European Parliament and of the Council of 20 May 2021 amending Decision No 1313/2013/EU on a Union Civil Protection Mechanism	7(1)	<i>"The ERCC shall in particular coordinate, monitor and support in real-time the response to emergencies at Union level. The ERCC shall work in close contact with national civil protection authorities and relevant Union bodies to promote a cross-sectoral approach to disaster management."</i>
	13(1)	<i>"The training and exercises programme shall aim to enhance the coordination, compatibility and complementarity of capacities referred to in Articles 9, 11 and 12, and to improve the competence of experts as referred to in points (d) and (f) of Article 8(1);"</i>
Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health and repealing Decision No 1082/2013/EU	2(5)	<i>"The Commission shall, in liaison with the Member States, ensure coordination and information exchange between the mechanisms and structures established under this Decision and similar mechanisms and structures established at Union level or under the Euratom Treaty whose activities are relevant for preparedness and response planning, monitoring, early warning of, and combating serious cross-border threats to health."</i>
	5(3)	<i>"3. The Union prevention, preparedness and response plan shall, in particular, include provisions on joint arrangements for governance, capacities and resources for: (a) the timely cooperation between the Commission, the Council, the Member States, the HSC and the relevant Union agencies or bodies. The Union prevention, preparedness and response plan shall take into account the services and support potentially available under the Union Civil Protection Mechanism, (f) the health preparedness and response and multi-sectoral collaboration, such as identifying risk factors for disease transmission and the associated disease burden, including social, economic and environmental determinants, following the One Health approach for zoonotic, food and waterborne diseases and relevant other diseases and related special health issues; ..."</i>
	20(1)	<i>"The risk assessment shall be carried out in the case of a threat referred to in Article 2(1) of this Regulation in cooperation with the European Union Agency for Law Enforcement Cooperation (Europol) where the serious cross-border threat to health emanates from terrorist or criminal activity..."</i>
	24(2)	<i>"The Advisory Committee shall have a multidisciplinary membership so that it can advise on public health, biomedical, behavioural, social, economic, cultural and international aspects. ... The representatives of other Union agencies or bodies relevant to the specific threat may participate as non-permanent observers in the Advisory Committee as necessary. The Commission may invite experts with specific expertise with regard to an item on the agenda to take part in the work of the Advisory Committee on an ad-hoc basis, in particular from the countries within whose territory the threat arises. ..."</i>

In addition to these legal acts the analysis of the selected documents enabled the identification of four relevant guiding documents that directly refer to cross-sectoral collaboration. For these documents the same identification and analysis logic has been applied as for the legal documents above.

These documents are considered particularly relevant because of their status and the fact that they were mentioned in a number of the documents analysed. The table below shows the content of these documents that concerns cross-sectoral collaboration, that can apply to a biological or chemical terrorist attack and to the sectors of public health, civil protection and law enforcement. In Annex 7 you will find a short summary and interpretation of the content of the documents and the place or importance they give to cross-sectoral collaboration applicable to a biological or chemical terrorist act.

Table 9 : Identified guiding documents

Document	Paragraph	Content
Sendai Framework for Disaster Risk Reduction 2015 – 2030	Point 7	<i>"There has to be a broader and a more people-centred preventive approach to disaster risk. Disaster risk reduction practices need to be multi-hazard and multisectoral, inclusive and accessible in order to be efficient and effective."</i>
	Point 14	<i>"Against this background, and in order to reduce disaster risk, there is a need to address existing challenges and prepare for future ones by focusing on monitoring, assessing and understanding disaster risk and sharing such information and on how it is created; strengthening disaster risk governance and coordination across relevant institutions and sectors and the full and meaningful participation of relevant stakeholders at appropriate levels; ... ; and enhancing multi-hazard early warning systems, preparedness, response, recovery, rehabilitation and reconstruction. ..."</i>
	Point 19 (e)	<i>"Disaster risk reduction and management depends on coordination mechanisms within and across sectors and with relevant stakeholders at all levels, and it requires the full engagement of all State institutions of an executive and legislative nature at national and local levels and a clear articulation of responsibilities across public and private stakeholders, including business and academia, to ensure mutual outreach, partnership, complementarity in roles and accountability and follow-up; ..."</i>
	Point 24(h)	<i>"To promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science policy interface for effective decision-making in disaster risk management ..."</i>
	Point 24(i)	<i>"To ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to complement scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies, plans and programmes of specific sectors, with a cross-sectoral approach, which should be tailored to localities and to the context; "</i>
	Point 25(g)	<i>"To enhance the scientific and technical work on disaster risk reduction and its mobilization through the coordination of existing networks and scientific research institutions at all levels ... "</i>
	Point 26	<i>"Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk. Clear vision, plans, competence, guidance and coordination within and across sectors, as well as participation of relevant stakeholders, are needed. Strengthening disaster risk governance for prevention, mitigation, preparedness, response, recovery and rehabilitation is therefore necessary and fosters collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant to disaster risk reduction and sustainable development."</i>
	Point 27 (a)	<i>"To mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors in: (i) addressing disaster risk in publicly owned, managed or regulated services and infrastructures; (ii) promoting and providing incentives, as relevant, for actions by persons, households, communities and businesses; (iii) enhancing relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and (iv) putting in place coordination and organizational structures"</i>

Document	Paragraph	Content
Sendai Framework for Disaster Risk Reduction 2015 – 2030	Point 27(g)	<i>"To establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for disaster risk reduction, and a designated national focal point for implementing the Sendai Framework for Disaster Risk Reduction 2015–2030. It is necessary for such mechanisms to have a strong foundation in national institutional frameworks with clearly assigned responsibilities and authority to, inter alia, identify sectoral and multisectoral disaster risk, build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data, contribute to and coordinate reports on local and national disaster risk, coordinate public awareness campaigns on disaster risk, facilitate and support local multisectoral cooperation (e.g. among local governments) and contribute to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management. These responsibilities should be established through laws, regulations, standards and procedures;"</i>
	Point 28(a)	<i>"To guide action at the regional level through agreed regional and subregional strategies and mechanisms for cooperation for disaster risk reduction, as appropriate, in the light of the present Framework, in order to foster more efficient planning, create common information systems and exchange good practices and programmes for cooperation and capacity development, in particular to address common and transboundary disaster risks;"</i>
	Point 28(b)	<i>"To foster collaboration across global and regional mechanisms and institutions for the implementation and coherence of instruments and tools relevant to disaster risk reduction, ..."</i>
	Point 30 (i)	<i>"To enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level; ... ; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, ..."</i>
	Point 31 (e)	<i>"To enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and the building of resilient health systems;"</i>
	Point 33 (b)	<i>"To invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; ..."</i>
	Point 34 (b)	<i>"To promote the further development and dissemination of instruments, such as standards, codes, operational guides and other guidance instruments, to support coordinated action in disaster preparedness and response and facilitate information sharing on lessons learned and best practices for policy practice and post-disaster reconstruction programmes;"</i>

Document	Paragraph	Content
Action Plan to enhance preparedness against chemical, biological, radiological and nuclear security risks	Sub-objective 2.1	"Strengthen EU CBRN preparedness and response through cross-sectorial training and exercises: The Commission in cooperation with Member States will strengthen training and exercises for first responders from the law enforcement, civil protection, health structures and, where relevant, borders and customs authorities and military partners. Training and exercises will be carried out through existing financial instruments and operational tools, in particular the Union's Civil Protection Mechanism (UCPM), CEPOL and the ISF-Police. The development of a common EU CBRN training curriculum will be promoted in close cooperation with EU Member States' experts."
	Sub-objective 2.7	"Strengthen EU's cross-sectorial awareness on bio-risks arising from accidental or voluntary releases through training, such as the joint European Centre for Disease Prevention and Control (ECDC)/Europol course on "Cross-sectorial biorisk awareness and mitigation training" for health emergency services, law enforcement and civil protection."
	Sub-objective 4.1.3	"Increase the dissemination of research results and promote information exchanges to enhance the dialogue among different actors, in the CBRN area,..."
	Sub-objective 4.1.3	"(2) facilitating cooperation and exchange of information (notably via EBDS, and networks such as EODN26) between law enforcement and other actors (including military), as well as with its network of international partners;"
International Health Regulations (IHR)	Annex 1: A.6	"g) to establish, operate and maintain a national public health emergency response plan, including the creation of multidisciplinary/multisectoral teams to respond to events that may constitute a public health emergency of international concern ..."
The EU Security Union Strategy	Part III (3)	"... Linking all players in the public and private sectors in a common effort: Key players in both the public and private sectors have been reluctant to share security-relevant information, whether for fear of compromising national security or competitiveness. But we are most effective when all are harnessed to support each other. In the first place, this means a more intense cooperation between Member States, involving law enforcement, judicial and other public authorities, and with EU institutions and agencies, to build the understanding and exchange needed for common solutions. ..."
	Part IV (3)	"... Member States retain the primary responsibility in the fight against terrorism and radicalisation. However, the ever-increasing cross-border/cross-sectorial dimension of the threat calls for further steps in EU cooperation and coordination. ..."
	Part IV (4)	"One of the most critical contributions the EU can make to protecting citizens is through helping those responsible for security to work well together. Cooperation and information sharing are the most powerful tools to combat crime and terrorism and pursue justice. To be efficient, it needs to be targeted and timely. To be trusted, it needs to be used with common safeguards and controls. ..."

4 Final considerations and limitations

Several considerations have to be taken into account when interpreting the results included in this report. First of all, the lists of elements identified in the different sections of this report do not pretend to be exhaustive. The lists in the different sections only reflect the content of the documents that have been identified, selected and analysed through the applied systematic desk research. Secondly, in terms of accessibility to national documents and information, the choice of selecting only documents written in English may constitute the biggest limitation. In addition to that, the sensitivity of the subject of the research may refrain countries or institutions to make some information available. Thirdly, chemical or biological terrorist attacks are rare events and intersectoral collaboration between public health, civil protection and law enforcement is a very specific part of the preparedness and response to such events. The literature dealing specifically with this subject is therefore fairly scarce. For this reason, some of the results have been extrapolated from documents dealing with a broader subject, while ensuring that it is applicable to the scope of the research.

Another element to take into consideration is that this report is part of the JA Terror WP6 activities aimed at supporting the development of a guiding document on cross-sectoral collaboration (objective 6.4). It cannot provide on itself all the information needed for the guiding document. Therefore, the other activities of WP6, in particular activities 6.1.1 (survey), 6.1.2 (expert interviews) and 6.3.2 (workshop), will complement the information needed for the development of the guiding document.

5 Conclusions

This report was based on a systematic online desk search that provided a good overview of available information online on the subject of cross-sectoral collaboration while limiting a number of biases. During the process of identifying documents of interest for this research, the large number of documents found during the online search underwent a selection process based on relevance criteria. However, this was a lengthy process and did not provide a complete overview of the existing documentation on the subject, particularly due to the choice of language and the sometimes limited access to this type of information.

In particular, this report highlights the elements most often put forward in terms of gaps/challenges and recommendations, and also looks at the regulations/guiding documents of reference in the field. The report also compiles a number of good practices that could serve as inspiration for achieving task 6.4 of JA Terror on the development of a guiding document on national cross-sectoral collaboration, together with the survey of task 6.1.1, the expert interviews of task 6.1.2 and the workshop of task 6.3.2.

In this report we have seen that cross-sectoral collaboration is an inherent problem in crisis management. The complexity of incidents such as a chemical or biological terrorist attacks, and the complexity of the structures that need to be put in place to deal with this type of events, adds a number of challenges to cross-sectoral collaboration, particularly between public health, civil protection and the law enforcement. It was also noted during the analysis of the documents that questions about cross-sectoral collaboration are often dealt superficially. The issues of cross-sectoral collaboration are also often addressed in a generic context, with few of the elements identified dealing explicitly with cross-sectoral collaboration between public health, civil protection and the law enforcement, and even fewer in a terrorist and/or chemical or biological context. Nevertheless, a number of initiatives, including the Joint Action Terror, are being undertaken to improve this cross-sectoral collaboration, both nationally and internationally. The EU, in particular, is investing heavily in crisis management and is attempting to play an increasingly important and central role in crisis management in Europe.

It seems important that in the future, for a better understanding of the issue, information on actual incidents and exercises should be made more accessible. The issue of cross-sectoral collaboration should also be addressed in greater depth in order to gain a better understanding of the problems and issues linked to cross-sectoral collaboration.

6 References

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7 Annexes

Annex 1: Combinations of key terms for the systematic search

#1: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response AND CBRN AND "cross-border" AND strategic AND (health OR security OR "civil protection") AND terrorism

#2: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response AND CBRN AND "cross-border" AND strategic AND (health OR security OR "civil protection") NOT terrorism

#3: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response NOT CBRN AND "cross-border" AND strategic AND (health OR security OR "civil protection") AND terrorism

#4: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response AND CBRN NOT "cross-border" AND strategic AND (health OR security OR "civil protection") AND terrorism

#5: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response AND CBRN AND "cross-border" NOT strategic AND (health OR security OR "civil protection") AND terrorism

#6: "cross-sectoral" AND crisis AND collaboration AND preparedness AND response AND CBRN NOT "cross-border" AND strategic AND (health OR security OR "civil protection") AND terrorism

#7: "cross-sectoral" AND crisis AND collaboration NOT preparedness NOT response AND CBRN AND "cross-border" AND strategic AND (health OR security OR "civil protection") AND terrorism

#8: "cross-sectoral" AND crisis AND collaboration AND (CBRN OR chemical OR Biological)



Annex 2: List of subjects covered in identified documents

Subjects		
Cross-sectoral collaboration	Health sector	Civil Protection sector
Security sector	Cross-border collaboration	guidelines
Terrorist context	Chemical	Biological
Good practices	Real example	

Annex 3: List of selected documents

1. European Parliament, Directorate-General for External Policies of the Union, Directorate-General for Parliamentary Research Services, Finance, S., Schmertzinger, L., Bentzen, N. (2021). Towards a more resilient Europe post-coronavirus : options to enhance the EU's resilience to structural risks, (F. Debié, editor, É. Bassot, edito) European Parliament.
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Annex 4: List of identified gaps and challenges with reference numbers

Theme	Gap/challenge	Code	Documents # (refer to Annex 3)
A. Structure	Complexity of crisis response structures	A.1	1, 6, 8, 11, 12, 14, 16, 18, 22, 23, 27, 29, 33, 35, 39, 48, 49, 54
	Adaptability of the structures to the evolution of the threat	A.2	1, 4, 14, 16, 18, 22, 23, 29, 36, 39, 48, 51, 54
	Interlinkage and overlap of roles and competencies	A.3	6, 12, 14, 16, 18, 22, 23, 35, 39, 41, 42, 54
	Formalisation of coordination/collaboration	A.4	12, 15, 26, 21, 29, 30, 51, 52, 53
	Lack of interoperability of structures and procedures (nat. + int.)	A.5	2, 6, 12, 14, 18, 29, 52, 54
	DRM structures vary among MS's	A.6	8, 11, 14, 16, 29, 38, 39
B. Policy-vision	Different visions on the threat among MS's	B.1	3, 6, 8, 11, 12, 14, 15, 16, 22, 26, 27, 28, 35, 54
	Work in silos	B.2	15, 32, 25, 29, 35, 51, 52, 53
	Lack of holistic vision on the threat	B.3	12, 14, 15, 22, 25, 26, 35, 52, 53
	Different visions on the threat among Actors	B.4	3, 12, 15, 22, 25, 29, 35, 54
	Clear leadership in crisis response	B.5	26, 28, 29, 32, 39
	Reluctance of being coordinated	B.6	1, 12, 18, 29
C. Capacity	Replacement of experienced/specialized staff	C.1	14, 29, 30, 39, 48, 51, 52, 54
	Lack of resources dedicated to collaboration	C.2	15, 26, 29, 30, 32, 52, 53
	Lack of use of joint evaluation and assessment tools	C.3	2, 6, 22, 29, 52, 53
	Inefficient use of existing resources, tools and mechanisms for collaboration	C.4	2, 6, 16, 29, 52
D. Integration	Lack/inconsistency of integration of recommendations/guidance across levels	D.1	2, 14, 16, 22, 25, 26, 28, 29, 33, 39, 53
	Lack of harmonization across sectors and decision levels	D.2	2, 14, 16, 21, 22, 25, 26, 28, 29, 35
	Ownership of the processes	D.3	15, 22, 29
	Inconsistency of external collaboration across levels	D.4	18, 26

Theme	Gap/challenge	Code	Documents # (refer to Annex 3)
Transparency	Lack of common understanding	E.1	3, 6, 12, 15, 16, 22, 27, 28, 29, 30, 35, 36, 39, 42, 51, 52
	No clear view on each other's competencies/mandates	E.2	2, 11, 18, 26, 51, 52, 53, 54
	Trust among actors	E.3	15, 16, 21, 22, 25, 35, 42, 51, 52
	No clear view on each other's activities	E.4	18, 26, 30, 53
	No clear view on each other's capacities	E.5	26, 35, 53
F. Training	Need for more transversal exercise/training activities at sectoral level	F.1	14, 29, 30, 39, 51, 52, 53
	Need for more transversal exercise/training activities at political level	F.2	30, 39, 51, 53
	Need to formalize use of results from exercise/training activities	F.3	2, 22
G. Information sharing	Access to available information	G.1	2, 16, 21, 30, 36, 42, 51, 53
	Harmonization of information exchange practices	G.2	2, 16, 21, 22, 39, 51, 53
	Formalization of information sharing	G.3	2, 14, 16, 42, 53
	Data management	G.4	6, 14, 36 51
	Quality and suitability of shared information	G.5	7, 15, 22, 39

Annex 5: List of identified recommendations with reference numbers

Main recommendation	Code	# Document (Refer to Annex 3)
Developing a holistic view for preparedness and response	RA	4, 5, 7, 11, 12, 21, 22, 29, 30, 34, 36, 38, 39, 41, 49, 52, 53, 54
Improvement of information exchange practices	RU	5, 7, 16, 21, 22, 29, 30, 33, 35, 36, 38, 42, 48, 51, 52, 53
Fostering use of assessment tools and results	RT	1, 2, 5, 22, 24, 25, 35, 39, 48, 49, 51, 52, 54
Define means to foster interoperability of structures and procedures	RC	8, 11, 12, 15, 26, 30, 38, 48, 49, 51, 52, 53
Clarification of roles and responsibilities of different actors	RQ	2, 5, 7, 12, 25, 29, 33, 39, 49, 52, 53, 54
Establishment common research, training and capacity building across sectors	RL	8, 12, 22, 29, 30, 35, 36, 49, 52, 53, 54
Give the EU-level a more central role in preparedness and response	RD	1, 2, 11, 12, 14, 21, 25, 30, 44, 51
Formalisation of cross-sectoral collaboration	RJ	2, 9, 15, 26, 29, 35, 48, 49, 52, 53
Integration of collaboration across different levels	RS	7, 22, 26, 29, 30, 35, 36, 49, 53
Increasing accountability and visibility of activities and results	RO	2, 12, 21, 22, 29, 35, 52, 53
Improve accountability of previous experiences	RR	1, 5, 7, 12, 22, 30, 35, 52
Continuous improvement strategy	RV	1, 22, 30, 33, 48, 49, 51, 52
Creation of a shared vision across actors	RY	1, 7, 26, 31, 36, 39, 49, 51
Fostering cross-border exercise activities	RF	8, 9, 14, 22, 27, 30, 36
Integrate scientific and private sector	RP	2, 5, 12, 22, 25, 35, 36
Establish liaison mechanisms	RX	7, 15, 21, 42, 49, 52, 53
Building on existing resources and tools	RB	5, 11, 15, 22, 38, 49
Increasing knowledge regarding laws and regulations	RH	5, 25, 27, 30, 36, 39
Establishment of a multidisciplinary entity	RM	12, 30, 33, 49, 52, 53
Ensure proper financing for cross-sectoral collaboration activities/structures	RN	15, 12, 26, 29, 36, 48
Applying common practices	RW	5, 9, 29, 30, 42, 59
Fostering (scientific) research on cross-sectoral/multidisciplinary dimension	RI	15, 27, 31, 35, 38
Tailoring of joint exercises	RG	2, 9, 14, 49
Improvement of the quality of information shared	RE	2, 7, 36, 51
Establishment of a common language	RK	1, 8, 25

Annex 6: Interpretation of legal acts from table 8

Consolidated version of the Treaty on the Functioning of the European Union (TFEU)

The TFEU is described as follows: *The TFEU is one of 2 primary treaties of the EU, alongside the Treaty on European Union (TEU). It forms the detailed basis of EU law by defining the principles and objectives of the EU and the scope for action within its policy areas. It also sets out organisational and functional details of the EU institutions.*¹

The aim of this treaty is not to regulate on specific elements but to define the bases on which the European Union can regulate certain areas. In other words, it defines the EU's scope of action, including, by extension, cross-sectoral collaboration in preparing for and responding to a biological or chemical terrorist attack. To better understand this scope, we first need to look at the EU's competences in the areas covered by our research. Under Articles 4 and 6 of the TFEU, the EU has shared competence in the fields of security and certain aspects of public health, as well as supporting competence in the field of civil protection. In practical terms, this means that competence in these areas remains mainly with the Member States, but also that the EU does not have the same power of action in these 3 areas. However, this power to act has increased in recent years, notably due to the cross-border nature of the various crises and threats that Europe has faced or is facing.

In this treaty, only one article refers to cross-sectoral cooperation that may apply to the preparation of and response to a biological or chemical terrorist attack, Article 67(3). The article stipulates that the Union must work to ensure a high level of security within its borders, in particular through coordination and cooperation measures between the law enforcement sector and the other competent authorities. Although this article remains generic, it gives the Union the right to take initiatives of its own accord to strengthen cross-sectoral collaboration. Another article of the treaty that is of interest and is referred to in several documents is Article 222 also known as the 'solidarity clause'. Although Article 222 refers more to the cross-border aspect than to the cross-sectoral aspect, it stipulates that, in the event of a terrorist attack on the territory of a Member State, the Union and the other Member States must assist the Member State (or States) affected, at the request of the latter's political authorities. Although this is not explicitly written, it means that in the event of a biological or chemical terrorist attack, the relevant actors in the Union and the Member States must be able to work together to support the affected country.

Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism

This decision established the creation of the Union Civil Protection Mechanism (UCPM), which aims to strengthen cooperation between the Union and the Member States and to facilitate coordination in the field of civil protection in order to improve the effectiveness of systems for preventing, preparing for and responding to natural or man-made disasters. In decision No 1313/2013/EU, 3 articles refer directly to cross-sectoral cooperation: Article 1(1), Article 3(1) and Article 13(1).

¹ [Treaty on the Functioning of the European Union | EUR-Lex \(europa.eu\)](#)

Article 1(1) on the general objective and subject matter of the UCPM expresses the fact that strengthening cooperation and facilitating coordination are among the general objectives of the EU Mechanism. Article 3(1), outlining specific objectives of the UCPM, elaborates on Article 1(1) by stating that, among other actions, the Union Mechanism will work to improve cooperation between the Civil Protection and other relevant services. Article 13(1) on Training, exercises, lessons learned and knowledge dissemination explicitly includes actors other than Civil Protection in the activities of the Union Mechanism also by including the support of Member States in this field.

Regulation (EU) 2021/836 of the European Parliament and of the Council of 20 May 2021 amending Decision No 1313/2013/EU on a Union Civil Protection Mechanism

The changes made by Regulation (EU) 2021/836 to Decision No 1313/2013/EU include new references to cross-sectoral collaboration in Articles 7 and 13.

Article 7(1) on the Emergency Response Coordination Centre (ERCC) states that the ERCC shall work to promote a cross-sectoral approach to disaster management. Although this cross-sectoral approach is not specifically described in the text, this demonstrates that this dimension is an important element for disaster management policies.

Article 13(1) on the Union Civil Protection Knowledge Network includes several elements of cross-sectoral collaboration. In particular, it emphasises the need to include different stakeholders in the Network's multi-hazard approach. The article also stipulates that exercise and training activities should aim to strengthen cooperation, compatibility and complementarity of capabilities previously mentioned in the regulation and which include cross-sectoral capabilities.

Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health and repealing Decision No 1082/2013/EU

This regulation, which deals mainly with the surveillance and early warning of infectious diseases, is mainly intended for public health authorities. Nevertheless, elements of cross-sectoral collaboration are present in Articles 2, 5, 20 and 24.

Article 2(5) on the scope of the regulation states that, in liaison with the Member States, the European Commission will ensure coordination and exchange of information between the mechanisms and structures established by the regulation and other mechanisms and structures whose activities are linked to cross-border health threats. This implies that the dimension of cross-sectoral collaboration must be taken into account in the development of the mechanisms and structures established by this regulation. Article 5(3) on the Union prevention, preparedness and response plan stipulates that the plan should include provisions for cooperation between different relevant agencies or institutions, including the UCPM (civil protection sector). Article 20(1) on public health risk assessment notes that risk assessment should be carried out in cooperation with Europol (law enforcement sector) in the case of threats arising from terrorist or criminal activities. In Article 24(2) on the establishment of the Advisory Committee on Public Health Emergencies, it is stipulated that this advisory committee must

be multidisciplinary in nature in order to provide the best possible advice to the HSC, implying thus cross-sectoral collaboration.

COUNCIL IMPLEMENTING DECISION (EU) 2018/1993 of 11 December 2018 on the EU Integrated Political Crisis Response Arrangements

The major aim of the integrated political crisis response (IPCR) arrangements is, by providing a flexible crisis mechanism, to foster rapid and coordinated decision-making at EU political level in the case of major and complex crises, including biological and chemical terrorist incidents. The EU political response to a crisis is coordinated by the presidency of the Council of the EU by bringing together EU institutions, affected member states and other key actors².

Although Decision (EU) 2018/1993 focuses mainly on the response aspect, the preparedness dimension is not absent from the provisions included.

On reading the decision, it becomes clear that particular attention is paid to the cross-sectoral dimension of crisis response. This can already be seen in the whereas, which stress the importance of flexibility in the response, both in terms of the inclusion of relevant actors and the political level of response, as well as the exploitation of synergies between the different actors and existing structures. Cross-sectoral collaboration is also mentioned in Articles 4, 7, 8, 9 and 12 of the decision.

Article 4(4) on the activation of the IPCR states that the Presidency (of the Council of the EU) shall in particular be advised by the agencies and actors that may be concerned by the situation or have particular expertise in relation to the nature of the situation.

Article 7(3) on roundtables in the context of the IPCR stipulates that any actor who can provide expertise or relevant input should be invited to the table.

Article 8(3) on the Integrated Situational Awareness and Analysis (ISAA) stipulates that the ISAA should enable, among other things, the collection and exchange of information between different stakeholders.

Article 9(1) on the creation of a web platform states that this web platform will serve as an electronic hub between the various stakeholders.

Article 12 (3)&(4) on preparedness implicitly refers to the need for the organisation of tailored cross-sectoral trainings for crises requiring coordination at EU political level. These trainings should involve the IPCR and respect the IPCR preparedness policy.

REGULATION (EU) 2021/522 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 March 2021 establishing a Programme for the Union's action in the field of health ('EU4Health Programme') for the period 2021-2027, and repealing Regulation (EU) No 282/2014

This regulation concerns the EU4Health programme, which aims to strengthen crisis preparedness in the European Union. This particularly concerns healthcare systems, which the programme aims to

² [How the Council coordinates the EU response to crises - Consilium \(europa.eu\)](#)

make stronger, more resilient and more accessible.³ Although this text is aimed at the health sector and its scope of application concerns health in a very broad way, there are several references to intersectoral collaboration applicable to the threat of a chemical or biological terrorist attack. Notably in point 11 of whereas and in Annex 1 intended to complete Article 4.

Point 11 of the whereas is quite explicit as it says that the program should foster Union-wide and cross-sectoral approach for response and preparedness both at the European Union's level and at the level of the Member States.

In Annex 1, on the possible eligible actions to achieve the objectives mentioned in Article 4 on the specific objectives of the EU4Health programme, cross-sectoral collaboration is mentioned several times. Action 3 (k), concerning the objective of supporting actions strengthening access to medical and crisis resources, refers to the establishment and operation of an cross-sectoral coordination mechanism.

Action 4(b), related to the objective of strengthening the capability of the Union for prevention of, preparedness for, and rapid response to, serious cross-border threats to health, is to manage stockpiling on a complementary way and in coordination with other Union instruments and bodies. Action 9(c) related to the objective of supporting integrated work in health system, is to strengthen cross-sectoral collaboration and coordination. Action 10 (b) related to the objective of supporting global commitments and health initiatives, is to collaboration among Union institutions, Union agencies, and international organisations and networks.

Annex 7: Interpretation of guiding documents from table 9

Action Plan to enhance preparedness against chemical, biological, radiological and nuclear security risks

The aim of this action plan is to increase the cooperation in the EU in the area of CBRN security. The plan focusses on the prevention, preparedness and response to CBRN threats, including biological and chemical terrorist incidents. In the introduction we can read that Member States reported the need to foster cross-sectoral activities and knowledge on cross-sectoral cooperation. And the need to achieve this on a structured manner.

Objective 2: *"ENSURING A MORE ROBUST PREPAREDNESS FOR AND RESPONSE TO CBRN SECURITY INCIDENTS"*

Sub-objective 2.1 is directly aimed at strengthening CBRN preparedness and response at European level through cross-sectoral exercises and training. The health, civil protection and security sectors are explicitly mentioned in sub-objective 2.1, which will be conducted by the Commission in collaboration with the Member States.

³ [EU4Health programme 2021-2027 – a vision for a healthier European Union - European Commission \(europa.eu\)](https://ec.europa.eu/health/eu4health/eu4health_programme_2021-2027_vision_en)

Sub-objective 2.7 deals with awareness, preparedness and response to biological risks. It is stipulated that this sub-objective aims, among other things, to strengthen cross-sectoral awareness of biological risks.

Objective 4: “*ENHANCING OUR KNOWLEDGE OF CBRN RISKS*”

Sub-objective 4.1.3 proposes that Europol develop a CBRN knowledge hub to support law enforcement authorities. This hub should facilitate cooperation and the exchange of information between law enforcement and other actors.

Sub-objective 4.2.1 indicates the desire to increase the dissemination of research results and the exchange of information in order to enhance dialogue between different actors in the field of CBRN.

International Health Regulations (IHR)

The International Health regulations (IHR) are an instrument of international law that is legally-binding on 196 countries around the world, including the EU Member States. It defines countries rights and obligations in handling public health events and emergencies with a cross-border potential.⁴

Although the text contains numerous direct references to cross-sectoral cooperation or cooperation between different actors, in most cases civil protection and law enforcement are not included in these references. Only one element of the text refers to cross-sectoral cooperation and is applicable to the health, civil protection and law enforcement sectors in the context of a terrorist act with chemical or biological components. This element is found in Annex 1 point A.6 on CORE CAPACITY REQUIREMENTS FOR SURVEILLANCE AND RESPONSE at national level, which refers to the creation of cross-sectoral teams to respond to events that could constitute a risk to health at international level.

Sendai Framework for Disaster Risk Reduction 2015 – 2030

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) is an international agreement adopted by the United Nations member states that aims to achieve the substantial reduction of disaster risk and impact.⁵

This document therefore defines the objectives and measures to be put in place in order to achieve this goal. The scope of this document is very broad in the field of disaster management. The elements of this document can therefore be applied to the biological or chemical terrorist threat, but are part of a much broader vision.

This document contains a large number of references to cross-sectoral collaboration in its measures, namely in points 7, 14, 19, 24, 25, 26, 27, 28, 30, 31, 33 and 34.

On lessons learned, gaps identified and future challenges from the Hyogo Framework for Action;

⁴ [International health regulations \(who.int\)](https://www.who.int/ia/hcr/instruments/international-health-regulations)

⁵ [Sendai Framework for Disaster Risk Reduction 2015-2030 | UNDRR](https://www.unisdr.org/we/inform/publications-and-reports/sendai-framework-for-disaster-risk-reduction-2015-2030)

Point 7 underlines that multisectoriality is an important feature for disaster risk reduction practices to be effective and efficient. Point 14 indicates that, on the basis of the elements cited in the previous points, there is a need to strengthen governance and cooperation across sectors and the full and meaningful participation of relevant stakeholders at appropriate levels.

On guiding principles ;

Point 19(e) highlights the need of cooperation mechanisms, well-defined structures and knowledge of each other's competencies. It says that disaster risk reduction management depends on coordination mechanisms within and across sectors at all levels and requires a clear articulation of responsibilities across public and private stakeholders.

On priority 1, "understanding disaster risk";

Point 24(h) stresses the importance, at national and local level, of dialogue and cooperation between different stakeholders in order to create an interface that enables more effective decision-making. This point focuses on the link between the technical/scientific and strategic/political levels across sectors. Point 24(i) states that the cross-sectoral approach must be tailored to the context of the risk or disaster. Point 25(g) notes that for the understanding of risk it is important to improve cooperation between existing networks and research institutions at all policy levels.

On priority 2, "strengthening disaster risk governance to manage disaster risk";

Point 26 stresses that for good governance in terms of risk reduction, it is important to have a clear vision, plans, guidelines and coordination with a cross-sectoral dimension.

Point 27(a) states that, at national and regional level, it is important to standardise and integrate disaster risk reduction across sectors and to promote the coherence of formal frameworks through transparency, the promotion of activities and the creation of incentives. Point 27(g) emphasises the need for strong legal bases with clear competences and mandates for the establishment of governmental coordination forums made up of players from different sectors. Point 28(a) stresses the need to set up coordination mechanisms and strategies at regional (international) level in order to deal with cross-border risks. Point 28(b) adds the importance of encouraging collaboration between institutions at international level to implement coherent instruments and tools in the field of disaster risk reduction.

On priority 3, "investing in disaster risk reduction for resilience";

In point 30(i) it is written that it is important to enhance the resilience of national health systems by, among other things, supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors. Point 31(e) adds the importance for resilience to enhance the cooperation at between the health sector and other sectors at international level.

On priority 4, "enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction";

Point 33(b) underlines the need to invest in, develop, maintain and strengthen multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, and hazard-monitoring telecommunications systems and develop such systems through a

participatory process. Point 34(b) adds for priority 4 the need to promote the development and dissemination of instruments for the coordination of actions in disaster preparedness and response and facilitate information sharing on lessons learned and best practices.

The EU Security Union Strategy

This is a strategy developed by the European Commission with the aim of improving the security of citizens within the European Union. The current strategy covers the period 2020-2025 and is based on 4 pillars⁶:

- Fighting terrorism and organised crime
- A future-proof security environment
- Building a strong security ecosystem
- Tackling evolving threats

Once again, this is a document whose scope goes far beyond the chemical or biological terrorist threat. The EU Strategy contains three elements applicable to cross-sectoral collaboration between the health, civil protection and law enforcement sectors against chemical or biological terrorist threats. They can be found in parts III and IV of the document.

In point III on an EU coordinated response for the whole of society it is stressed that cooperation between different sectors among Member States and EU bodies and agencies is key to develop common solutions and enhances the effectivity of actions for security at EU level. Meanwhile it highlights the challenge of lack of trust among actors for the exchange of sensitive information.

Part IV (3) on protecting Europeans from terrorism and organised crime underlines the increasing cross-border and cross-sectoral nature of the terrorist threat. This tendency leads to the need for further EU cooperation and coordination against the terrorist threat. With the implementation of effective EU counter-terrorism legislation as a priority. In other words it support the idea of a more EU-centred approach.

In part IV (4) on a strong European security ecosystem, the paragraph dedicated to cooperation and the exchange of information maintains that cooperation and the exchange of information are the most powerful tools for combating crime and terrorism and adds that the EU can contribute to facilitating this cooperation. This, again, advocates for the utility of EU-institutions for cross-border/sectoral collaboration.

⁶ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/promoting-our-european-way-life/european-security-union_en