Scientific Committee on Health, Environmental and Emerging Risks
(SCHEER)

Guidance on ad hoc rapid risk assessment of serious cross-border chemical health threats performed by the SCHEER

The SCHEER adopted this document at the plenary meeting on 2nd February 2017
ABSTRACT

The European Commission asked the Scientific Committee on Health and Environmental Risks (SCHER) and its successor, the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) a guidance document illustrating the procedure to be followed by the SCHEER for the provision of ad hoc rapid risk assessments in case of cross border chemical health threats.

Decision 1082/2013/EU on serious cross border threats to health\(^1\) lays down rules on how to deal with incidents or alerts of actual or potential serious cross-border threats to health. When a coordinated response at European Union level is required, the Commission shall make promptly available a risk assessment of the potential severity of the threat to public health, including possible public health measures.

The Commission can provide such a risk assessment in case of chemical incidents by means of the Scientific Committees, with the support of additional experts, as necessary, to ensure the timely and sound risk assessment needed.

The SCHEER has been tasked with coordinating the response in case of cross border chemical health threats to support the Commission. These include both manmade and naturally occurring events (e.g. chemicals released during an incident or during a volcanic eruption) that may have an impact on public health. The rapid risk assessment does not cover the wider effects on the environment.

This document presents the procedure to be followed by the SCHEER for the provision of ad hoc rapid risk assessments.

**Keywords:** template, procedure, rapid risk assessment

**Opinion to be cited as:**

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\(^1\) Decision 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health

ACKNOWLEDGMENTS

Members of SCHER Working Group are acknowledged for their valuable contribution to this opinion. The members of the Working Group are:

The SCHER members:

Claire Beausoleil
María José Carroquino
Raquel Duarte-Davidson (Chair and Rapporteur)
Teresa Fernandes
Colin Janssen
Renate Krätke
Jan Linders
Greta Schoeters

All Declarations of Working Group members and supporting experts are available at the following webpage:
http://ec.europa.eu/health/scientific_committees/environmental_risks/members_committee/index_en.htm
About the Scientific Committees

Two independent non-food Scientific Committees provide the Commission with the scientific advice it needs when preparing policy and proposals relating to consumer safety, public health and the environment. The Committees also draw the Commission’s attention to the new or emerging problems which may pose an actual or potential threat.

They are: the Scientific Committee on Consumer Safety (SCCS) and the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER). The Scientific Committees review and evaluate relevant scientific data and assess potential risks. Each Committee has top independent scientists from all over the world who are committed to work in the public interest.

In addition, the Commission relies upon the work of other Union bodies, such as the European Food Safety Authority (EFSA), the European Medicines Agency (EMA), the European Centre for Disease prevention and Control (ECDC) and the European Chemicals Agency (ECHA).

SCHEER

This Committee, on request of Commission services, provides Opinions on questions concerning health, environmental and emerging risks. The Committees addresses questions on:

- health and environmental risks related to pollutants in the environmental media and other biological and physical factors in relation to air quality, water, waste and soils.
- complex or multidisciplinary issues requiring a comprehensive assessment of risks to consumer safety or public health, for example antimicrobial resistance, nanotechnologies, medical devices and physical hazards such as noise and electromagnetic fields.

SCHEER members

Roberto Bertollini, Teresa Borges, Wim de Jong, Pim de Voogt, Raquel Duarte-Davidson, Peter Hoet, Rodica Mariana Ion, Renate Kraetke, Demosthenes Panagiotakos, Ana Proykova, Theo Samaras, Marian Scott, Remy Slama, Emanuela Testai, Theo Vermeire, Marco Vighi, Sergey Zakharov

Contact:
European Commission
DG Health and Food Safety
Directorate C: Public Health, Country Knowledge, Crisis management
Unit C2 – Country Knowledge and Scientific Committees
Office: HTC 03/073    L-2920 Luxembourg
SANTE-C2-SCHEER@ec.europa.eu

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1 MANDATE

1.1 BACKGROUND

Decision 1082/2013/EU on serious cross border threats to health\(^2\) (the Decision) lays down rules on combating serious cross border threats to health. Where there is an incident or alert of an actual or potential serious cross-border threat to health that fulfils the criteria detailed in Article 9 of the Decision (Box 1), the Commission shall, where necessary for the coordination of the response at Union level and upon request of the Health Security Committee (HSC) or on its own initiative, make promptly available to the national competent authorities and to the HSC, through the Early Warning Response System (EWRS), a public health risk assessment of the potential severity of the threat to public health, including possible public health measures.

**Box 1. Decision 1082/2013/EU Article 9, alert notification.**

<table>
<thead>
<tr>
<th>Criteria for Alert Notification</th>
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<tr>
<td>- it is unusual or unexpected for the given place and time, or it causes or may cause significant morbidity or mortality in humans, or it grows rapidly or may grow rapidly in scale, or it exceeds or may exceed national response capacity; and</td>
</tr>
<tr>
<td>- it affects or may affect more than one Member State; and</td>
</tr>
<tr>
<td>- it requires or may require a coordinated response at Union level.</td>
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According to Article 10 of the Decision risk assessment shall be carried out by:

a) the European Centre for Disease Prevention and Control (ECDC) in accordance with Article 7(1) of Regulation (EC) No 851/2004\(^3\) in the case of a threat related to communicable diseases, antimicrobial resistance and healthcare-associated infections related to communicable diseases or threats of unknown origin;

b) the European Food Safety Authority (EFSA) in accordance with Article 23 of Regulation (EC) No 178/2002\(^4\) in the case of a threat referred to in Article 2 of this Decision where the threat falls under the mandate of the EFSA; and/or

c) other relevant Union agencies.

Where the risk assessment needed is totally or partially outside the mandates of the agencies referred above, and it is considered necessary for the coordination of the response at Union level, the Commission shall, upon request of the HSC or its own initiative, provide an *ad hoc* risk assessment.

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Ad hoc rapid risk assessment

According to Commission Decision (2015) 5383\(^5\) the mission of the Scientific Committees is to provide the Commission services with scientific advice and risk assessment in the areas of public health, consumer safety and environmental risks.

Furthermore, according to Article 3 of this Decision, 'the Commission services may also request the Committees to provide rapid advice on the state of scientific knowledge concerning specific risks in case of urgent risks'.

In operational terms, the Commission and the HSC may request the SCHEER to undertake rapid risk assessments (RRAs) in case of chemical cross border public health threats from both manmade and naturally occurring events (e.g. chemicals released during an incident or during a volcanic eruption) that may have an impact on health (hereafter chemical health threats). The assessment does not cover the wider effects on the environment which are outside the scope of addressing the effects on human health (e.g. biological effects on ecosystems) as these are outside of the remit of the Decision and would therefore have to be taken forward through other existing mechanisms, e.g. through a separate mandate or different body.

To support the implementation of the Decision for chemical health threats the Commission has partly funded a number of projects aimed at developing appropriate methodologies to responding to serious emerging chemical health threats (ASHT I, II and III\(^6\); ECHEMNET; CARRANET; CARIMEC\(^9\); Iridium exercises\(^10\); CELESTE\(^11\); CIE Toolkit\(^12\); SHIPSAN ACT\(^13\)). These methodologies have been tested in workshops and through simulation exercises to determine the best approaches to dealing with cross border chemical health threat situations. Outcomes of the projects and exercises have been incorporated in the development of this guidance note.

The funded projects have developed a Rapid Alerting System for Chemical health threats (RASCHEN) to enable European Poison Centres and Public Health Authorities to share information on chemical incidents; guidance for risk assessors; standardised information on chemical hazards and; a methodology that includes a number of templates to facilitate the process of carrying out RRAs in a consistent and traceable manner. These procedures and templates have been tested through successive simulation exercises involving a range of stakeholders (e.g. SCHER committee members, DG ECHO, DG ENV, JRC, WHO, ECDC) and European Union Member States (most Member States have participated in at least one exercise). Methodologies and procedures have been adapted as needed to make them fit-for-purpose to the different situations and to all Member States (MSs) across Europe. Furthermore, since the implementation of the Decision in

\(\text{\footnotesize{\textsuperscript{5}Commission Decision C(2015) 5383 of 7.8.2015 establishing Scientific Committees in the field of public health, consumer safety, and the environment}}\)  
\(\text{\footnotesize{\textsuperscript{6}Alerting and Reporting Systems for Chemical Health Threats, Phase II (ASHTII; Agreement Number 2071101), 2008-2011; and Alerting Reporting and Surveillance systems for Chemical Health Threats, Phase III (ASHTIII; Agreement Number 20111101), 2012-2015); http://www.asht.eu/}}\)  
\(\text{\footnotesize{\textsuperscript{7}European Chemical Emergency Network (ECHEMNET; Agreement Number:20121101); http://echemnet.eu/}}\)  
\(\text{\footnotesize{\textsuperscript{8}Chemical and Radiological Risk Assessment Network (CARRANET; Service Contract Number 2010 61 21), 2010-2011}}\)  
\(\text{\footnotesize{\textsuperscript{9}Chemical and Radiological Medical Emergency Countermeasures (CARIMEC; Service Contract Number 20106122), 2011-2012}}\)  
\(\text{\footnotesize{\textsuperscript{10}Generic Preparedness Planning (GPP) for Public Health Emergencies (Service Contract 20091201), 2011}}\)  
\(\text{\footnotesize{\textsuperscript{11}Case studies, Exercises, Learning, Surveys and Training across Europe (CELESTE), 2012-16}}\)  
\(\text{\footnotesize{\textsuperscript{12}The Public Health Response to Chemical Incident Emergencies Toolkit (CIE toolkit; Agreement Number 2007205), 2008-2011}}\)  
\(\text{\footnotesize{\textsuperscript{13}The impact on maritime transport from health threats due to biological, chemical and radiological agents including communicable diseases (SHIPSAN Act; Agreement Number 20106122), 2013-2016}}\)
November 2013 a network of experts (set up through the ASHTIII and ECHEMNET projects) have worked in pilot mode and provided support to the Commission whilst a permanent mechanism to deal with these cross border chemical threats was put in place. This support came to an end on 1st April 2016 when the SCHEER took on this role.

1.2 TERMS OF REFERENCE

The SCHER is required by the Commission to develop a procedure for *ad-hoc rapid risk assessment* of serious cross border chemical threats. In the development of such a procedure, the SCHER should take into consideration:

- The procedures already in place (Rapid Advice and Accelerated Procedure in the 'Rules of Procedures');
- The knowledge available and experience gained at the EU level, e.g. projects funded under the second EU Health Programme (ASHT and ECHEMNET) that aim to provide support for the Commission and to the EU Member States to comply with the Decision 1082/2013 on serious cross border chemical threats to health.

In particular, the procedure should comprise:

- description of the tasks to be performed, the actors involved and the timeline;
- interaction among Commission services, the relevant Scientific Committee(s) and other EU or international bodies involved;
- line of command among different parties involved in the exercise;
- sign-off procedures clearly specified.

Recommendations on key elements and critical points to be considered when performing rapid risk assessment should also been included in the guidance.
2 PROCEDURE FOR RAPID RISK ASSESSMENT

2.1 Introduction
The Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) provides the Commission with expert and independent scientific advice mainly on the health and environmental effects of chemicals. These assessments are formed over several months using the best quantitative and evidence-based risk assessment methodology available. As from the 1st April 2016, the Commission may request the SCHEER, the joint successor of the Scientific Committee on Health and Environmental Risks (SCHER) and the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) to provide rapid risk assessments concerning specific risks following from chemical and/or environmental emergency incidents of cross-border significance.

Due to the nature of acute chemical incidents there may be a requirement to deliver advice and to assess the risks from the incidents in very short timeframes. This paper proposes a robust mechanism for effectively dealing with cross border threats to health (also illustrated in Figure 1) for rapid independent and authoritative advice in such emergency situations.

2.2 Mechanism
The SCHEER will provide ad hoc public health RRA and other independent scientific advice to DG SANTE unit in charge of crisis management through the permanent SCHEER Rapid Risk Assessment Working Group (RRA WG).

Requests to the SCHEER to undertake a public health RRA will come from the DG SANTE unit in charge of crisis coordination of serious cross-border threats to health (hereafter health threats unit) via the SCHEER Secretariat (see Figure 1).

The SCHEER secretariat will contact the Chair of the RRA WG (or alternate) and inform the Chair of the SCHEER about the request for a public health RRA. The procedure for communication (cascade) is then activated to alert the SCHEER WG on RRA and establish an ad-hoc sub group involving experts from the pool of experts on RRA, based on need and availability. The RRA WG Chair and the Secretariat will decide on the final number of experts to ensure the range of skills required is included in the RRA team and the SCHEER secretariat will set up a meeting (via audio-conference) of the RRA ad-hoc WG as soon as possible.

The SCHEER secretariat will liaise with the DG SANTE health threats unit to be informed about parallel assessments and/or other relevant information from relevant bodies including:

- World Health Organization
- ECDC where the event is initially of unknown aetiology
- JRC where there is requirement for plume modelling or satellite imagery
- DG-HOME for threat related information
- DG-ECHO for information related to the deployment of EU assets through the Civil protection mechanism
- Other bodies as relevant (e.g. DG ENV, ECHA, EFSA)

The procedure to undertake ad hoc public health RRA of chemical threats is outlined on Figure 1.
Figure 1: Outline of interaction between DG SANTE, SCHEER and Pool of RRA Experts

The **blue arrows** indicate the flow of the request for RRA and the procedure for delivering the RRA

The **green arrows** indicate the flow of output documents

Most incidents will require the whole process to be completed within approximately 24 to 36 hours from the time of the incident request, though the timeframe may be shorter depending on the information available and urgency of the request.
It is important to bear in mind that the outputs from the risk assessment will be based on the information available at the time and may need to be revisited as more information becomes available.

The RRA will be approved by the ad hoc RRA WG Chair and sent for endorsement to the Chair of the permanent RRA WG (or alternative).

The SCHEER secretariat will send the RRA to all SCHEER members for information.

The outputs of the RRA will be used by the Commission (i.e. DG SANTE health threats unit) to make decisions on how best to coordinate the incident and reduce risks to public health as well as communicate these in a consistent manner across the European Union.

The Commission shall ensure that information that may be relevant for the risk assessment is made available to the national competent authorities through the EWRS and to the HSC.

The decision to publish the rapid risk advice more widely will be made by DG SANTE health threats unit, depending on the nature of the topic.

In summary:

- A permanent RRA WG is created with members of the SCHEER and the pool of RRA experts. This group should comprise up to 12 experts
- The SCHEER secretariat will coordinate any requests made to the working group;
- in case of incidents ad hoc sub-group is created from the members of the permanent RRA WG and the pool of experts as required
- The sub-group delivers the RRA which is approved by the Chair of the RRA WG and endorsed in its final version by the Chair of the SCHEER

### 2.3 Roles of the different actors

#### The Rapid Risk Assessment Working Group

A **permanent working group, called Rapid Risk Assessment Working Group (RRA WG)** is established which comprises up to 12 members as follows:

- a) Chair (SCHEER member);
- b) Expert Risk Assessor (SCHEER member or external expert) acting as a rapporteur;
- c) SCHEER members experienced in public health RRA; at least one of these members will have to be able to alternate for the Chair;
- d) External experts from the pool of RRA experts.

The RRA WG will coordinate the risk assessment in case of a cross border chemical incident and liaising with a pool of RRA experts to get rapid advice as the incident evolves.

In case of a request an **ad hoc RRA sub-group** is formed to undertake the assessment. Such sub-group comprises members from the RRA WG and from the pool of experts on RRA.

The SCHEER secretariat provides support to the WG liaising also with the DG SANTE Unit responsible for crisis coordination of serious cross-border threats to health.
The RRA WG will need to be composed of sufficient members to ensure there is support and resilience (e.g. also during holiday periods or in case of other work commitments, etc.).

All members of the RRA WG will need to have the relevant experience, skills and competency in disciplines required to undertake a RRA and in dealing with the rapid response to emerging public health threats. They must be familiar with the supporting templates available for undertaking the RRA. In order to be able to be involved in a RRA, members will need to be available within one hour of an incident and contribute to components of the assessment as requested by the Chair and expert public health risk assessor (e.g. front line).

**Chair of the RRA WG**

The SCHEER’s input to the RRA should be co-ordinated by a Committee Member, with expertise in the area of acute rapid risk assessment, designated by the SCHEER, who will be Chair of the RRA WG.

The Chair of the RRA WG will need to demonstrate experience, skills and competency in dealing with acute chemical threats, including incident director experience and must be familiar with the expertise and the support that can be drawn from the pool of RRA experts. The Chair should have an understanding of the network objectives and EU crisis coordination structures and mechanisms as well as an understanding of the alerting and responding procedures of the network and its methodologies.

The Chair of the RRA WG will be the link between the SCHEER, the Secretariat, the RRA WG and the *ad hoc* sub-group.

The Chair of the RRA WG will be charged with delivering and approving the RRA with the support of the *ad hoc* sub-group, and the RRA WG and will also inform the SCHEER Chair who shall endorse the RRA as soon as the document(s) is (are) finalised by the RRA WG. If the Chair of the WG is unavailable; an alternative WG member can take this role.

If needed, the Chair of the RRA WG will also be the spokesperson at meetings convened by DG SANTE and the HSC.

**Expert Risk Assessor (rapporteur)**

The role of the Expert Risk Assessor is to work closely with the Chair of the RRA WG in co-ordinating the RRA and the *ad hoc* sub-group to act as a rapporteur in completing the RRA and queries that may arise during the incident.

The Expert Risk Assessor will be able to participate actively in the RRA of a chemical health threat with relevant skills and expertise and has a duty to maintain them. The expert should have experience of acute chemical incidents, at least at regional level and a clear understanding of the network objectives and EU crisis coordination structures and mechanisms.

**Pool of RRA experts**

In order to provide the full spectrum of timely, robust and independent expert scientific and medical/clinical toxicological advice that may be required during the acute phase of a serious transboundary chemical incident, it is important to be able to draw expertise from an already established pool of RRA experts.
The SCHEER requires access to a pool of RRA experts who are skilled at dealing with acute chemical incidents to ensure rapid access to specialist knowledge during an emergency.

The RRA experts need to be experienced in the acute phase and follow up response to chemical exposures/incidents and be able to provide advice in relation to a chronic health problem related to these chemical exposures/incidents. Specialist knowledge in public health risk assessment, general toxicology, clinical and medical toxicology, exposure assessment, environmental sciences and chemical agent specific knowledge will also be required (see Annex 6.1 for further details).

The Commission launched an open call for experts during 2016 and has recruited a range of experts to become part of the pool of experts to support the RRA WG\(^{14}\). The Commission is also setting up a mechanism to enable experts to apply to join the pool of experts in the future. The pool of RRA experts provide a full range of expertise able to deal with threats of chemical origin and which includes experts from European Poisons Centres and Public Health Authorities with a role in acute phase response to chemical incidents and with previous experience in chemical incidents.

The range of skills required has been developed based on past projects’ experience (e.g. ASHT III and ECHEMNET) and this has been used to help with the identification and recruitment of potential experts and to provide information on skills gaps (see Annex 6.1).

The pool of RRA experts should be adequately large to ensure that support is available on an ad hoc basis in case of an incident; from experience a minimum of 50 experts are considered appropriate to ensure there are at least 5 available to participate at short notice and cover the range of expertise required.

To ensure competency is maintained the Commission services will organise annual meetings, running of simulation exercises and impromptu meetings (e.g. to test systems are working).

In summary:

- A pool of RRA experts has been created;
- The pool of RRA experts will be assessed and maintained via the use of a skills framework;
- Annual meetings, running of simulation exercises and impromptu meetings (e.g. to test systems are working) will ensure competency is maintained.

\(^{14}\) http://ec.europa.eu/health/scientific_committees/call_experts/index_en.htm
Secretariat

The SCHEER Secretariat will provide support to the RRA WG and the ad hoc RRA sub-group. Activities led by the secretariat should include liaising with the DG SANTE health threats unit to gather and collate event and surveillance data and news feeds (Alertmap, GPHIN, EDIS, MediSys, Twitter) and ensure that information and document templates are available to experts (document sharing facilities).

The secretariat will also ensure that the RRA WG has access to information from RASCHEM and EWRS.

2.5 Methodology

The RRA will have to be endorsed within a short timeframe to ensure that appropriate health protective actions can be taken. This means producing a summary of the assessment within 24 to 36 hours and sometimes within a shorter timeframe, depending on the request and urgency.

To be able to do so, both the members of the RRA WG and the experts from the pool will need to be competent with the process of the RRA itself and with the protocols and materials used for developing a RRA and supporting guidance.

The methodology presented here aims to provide a tool for RRA during the early stages of a chemical incident with actual or potential cross border health threats. The RRA on which the risk advice is based on has to be robust, reproducible and transparent and has to use plain, understandable language to assist decision makers to implement appropriate and timely control measures as well as assist risk managers in communicating risks across member states effectively.

The RRA will need to be delivered in a short time (e.g. approximately 24 to 36 hours) and as such it will be based on information available during the early stages of the incident; therefore there will be limited opportunity to search for data or to generate new data and often the assessment will have greater uncertainties than in classical risk assessments. The assessment will often be qualitative and should reflect the characterisation of the public health data of the affected or potentially affected population if available.

Due to time constrains there will be limited opportunity to engage with experts outside of the pool of RRA experts and the SCHEER members, though support may be required from other European Institutions (e.g. ECDC, EFSA, EMCDDA, EMA, ECHA, JRC, EFSA) or International Organizations (e.g. WHO). A good example of this would be where support is requested from the JRC for exposure modelling of plumes based on meteorological conditions.

It is important to remember that the purpose of the risk assessment is to assist rapid and defensible decision-making about cross border acute public health events that pose a risk to human health. This estimate is most likely to be based on available data and information, including any information available from recent similar or comparable events from which information can be extrapolated.

As with any risk assessment, the RRA will have some inherent uncertainty. Uncertainty will depend on the nature of the information available as well as the time available to perform the assessment, and the complexity of the assessment/situation. A clear and
transparent characterization of the uncertainties in the RRA will be as important as the conclusive estimates of risk, at the time of presenting the RRA and how they could be addressed during the following hours/days should be included in the assessment. Information on uncertainties will give the risk manager essential information to avoid taking inappropriate actions which may actually result in greater risks.

The assessment will be provided in the form of a **RRA methodology and template** (see annex 6.2) which provide information on who the document is aimed at and how the template should be used. It is important that members are familiar with the template and methodology prior to being involved in populating the template during an incident so it is essential that the RRA user guide is read before completing the RRA. The document has linked descriptions which provide more information on the template fields.

The template itself comprises eight sections covering: (1) Event Control Data; (2) Hazard Data; (3) Exposure Data; (4) Clinical Case Data; (5) Public Health Factors; (6) Cross-sectoral factors; (7) Societal factors; and (8) Overall Public Health Risk Characterisation. There is also a summary section which is the key part of the risk assessment that is used by risk managers. Once the RRA is completed the summary section can be populated automatically from earlier parts of the document. The template is provided as guidance and only sections that are relevant need to be completed in order to ensure that all questions asked by the Commission or Member States are addressed.

In addition, the following documents may be provided, if needed:

- **Hazard Statements** and other short summary style documents containing important chemical hazard information and recommendations on public health measures may also need to be produced to aid effective risk communication (see Annex 6.3 for template and an example)
- **Case definitions** can be a useful tool to help national authorities recognise people who may have been affected by chemical exposures. This in turn supports the identification of people that may require treatment and support as well as helping the epidemiological aspect of the acute phase response in tracking and tracing casualties (annex 6.4).

In addition, the SCHEER may also make use of the information contained in several internationally recognised databases and available sources of information (annex 6.5).

### 2.6 Provision of co-ordination, technical facilities and administrative support

To ensure rapid and effective communication with the network of experts and good coordination of the response to an incident, communication facilities and secretariat support needs to be in place.

The **communication channels** described below have been shown to be essential in the coordinated response for the past projects’ Network (e.g. ASHT III; ECHEMNET).

- Tele-conference facilities to share information with the network, allow coordination of activities and discussion between those involved.
- A screen sharing platform (e.g. Lync or Skype for Business, Adobe Connect) to support real-time document drafting and editing during emergency teleconference meetings.
A collaborative cloud-based workspace environment (e.g. Huddle) to allow RRA WG members to access working documents, provide comments and approve content. It is important to have at least an IL2 certificated platform that is secure for handling sensitive official information. The platform should also enable efficient version control and therefore represent a more efficient means of ensuring good quality assurance and version control that using traditional channels (e.g. email).

- Access to the appropriate databases (see Annex 6.5) and licenses if necessary. The RRA WG will decide on what are the appropriate databases that the WG need access to.
- Access to a list of key contacts (i.e. including emails and telephone numbers).
- Access to the pool of RRA experts

**Training and exercises**

Continual action will be required to coordinate the recruitment of experts, to maintain the pool of RRA experts and to increase resilience and robustness of the response.

A mechanism needs to be established to ensure that members of the SCHEER RRA WG and the pool of RRA experts are trained and have taken part in exercises (e.g. table top exercises). This should involve familiarisations with relevant methodologies and templates and participation in relevant simulation exercises.
## 3 Abbreviations and Glossary of Terms

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ASHT</td>
<td>Alerting System for Chemical Health Threats (ASHTIII, EC No:20111101)</td>
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<td>CARIMEC</td>
<td>Chemical and Radiological Medical Emergency Countermeasures</td>
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<td>CARRANET</td>
<td>Chemical and Radiological Risk Assessment Network</td>
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<tr>
<td>CELESTE</td>
<td>Case studies, Exercises, Learning, Surveys and Training across Europe</td>
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<tr>
<td>CERM</td>
<td>Chemical Emergency Risk Management Monographs</td>
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<tr>
<td>CIE Toolkit</td>
<td>The Public Health Response to Chemical Incident Emergencies Toolkit</td>
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<td>ECDC</td>
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<td>ECHEMNET</td>
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<td>EFSA</td>
<td>European Food Standards Agency</td>
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<td>EMA</td>
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<td>EMCDDA</td>
<td>European Monitoring Centre for Drugs and Drug Addiction</td>
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<td>EWRS</td>
<td>Early Warning Response system</td>
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<td>Global Public Health intelligence Network</td>
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<td>JRC</td>
<td>Joint Research Centre</td>
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<tr>
<td>MSs</td>
<td>Member States</td>
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<tr>
<td>RASCHEM</td>
<td>Rapid Alerting System for Chemical Health Threats</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid Risk Assessment</td>
</tr>
<tr>
<td>SCHEER</td>
<td>Scientific Committee on Health, Environmental and Emerging Risks</td>
</tr>
<tr>
<td>SCHER</td>
<td>Scientific Committee on Health and Environmental Risks</td>
</tr>
<tr>
<td>SHIPSAN Act</td>
<td>The impact on maritime transport from health threats due to biological, chemical and radiological agents including communicable diseases</td>
</tr>
<tr>
<td>WG</td>
<td>Working Group</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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## 4 ANNEXES

### 6.1 Expert network questionnaire

<table>
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<th><img src="Skills_Framework_Questionnaire_v12_.jpg" alt="Skills Framework Questionnaire_v12_" /></th>
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<th><img src="Public_Health_Risk_Assessment_Tool_v41.jpg" alt="Public Health Risk Assessment Tool v41" /></th>
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### 6.2 Rapid Risk Assessment template

<table>
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<th><img src="Hazard_Statement_TEMPLATE_v1_201505.jpg" alt="Hazard Statement TEMPLATE v1 201505" /></th>
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<th><img src="Example_Hazard_Statement_Styrene_and_MSH_v1_20140924_RO.jpg" alt="Example_Hazard Statement Styrene and MSH v1_20140924_RO" /></th>
</tr>
</thead>
</table>

### 6.3 Hazard statement template

- a) Template
  - ![Hazard Statement TEMPLATE v1 201505](Hazard_Statement_TEMPLATE_v1_201505.jpg)

- b) An example
  - ![Example_Hazard Statement Styrene and MSH v1_20140924_RO](Example_Hazard_Statement_Styrene_and_MSH_v1_20140924_RO.jpg)

### 6.4 Case Definition

- a) Template
  - ![Case Definition TEMPLATE v1_20140527_RO](Case_Definition_TEMPLATE_v1_20140527_RO.jpg)

- b) An example
  - ![Example Case Definition Aluminium Phosphide_20140925_v1_1_RO](Example_Case_Definition_Aluminium_Phosphide_20140925_v1_1_RO.jpg)

### 6.5 Additional sources of information

- a) List of databases with links
  - ![List of useful sources](List_of_useful_sources_of_information_with_w.jpg)

- b) A library of 119 *Chemical Emergency Risk Management Monographs (CERMs)* for high risk chemicals is available from DG SANTE on request.
  - ![CERM Sheets_Chemical list_16_0303](CERM_Sheets_Chemical_list_16_0303.jpg)

- c) Protocol to derive CERMs at short notice for chemicals not currently included in the library list
  - Available from the SCHEER Secretariat

- d) An IT tool to help identify 135 high risk toxic chemicals (including deliberate release agents) and toxidromes from injuries sustained from unknown hazards has been developed, can be used in day-to-day poison centre work, chemical incident risk assessment and in exercises.
  - Available from the SCHEER Secretariat