



Bundesamt
für Bevölkerungsschutz
und Katastrophenhilfe



LÜKEX 13

Exceptional Biological Threats

Comprehensive Exercise Report

„Overcoming emergency situations resulting from exceptional biological threats requires the efficient interdepartmental collaboration of all participants[...]. [...] it becomes clear that in dealing with important issues of biological crisis management, action is needed, in particular for the development of coherent recommendations and the synchronisation of guidelines.”

Federal Office of Civil Protection and Disaster Assistance,
Robert Koch Institute (pub.) (2006): Biologische Gefahren I,
Handbuch zum Bevölkerungsschutz, Berlin; Page 12f.

Fig. 1: Laboratory work

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Comprehensive Exercise Report

Project Team LÜKEX Bund

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Civil Protection

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Introduction

Germany's experience of different threats since the turn of the century – not least the events of 11 September 2001 and the flood crisis of 2002 – have led to a change of thinking in the civil protection sector. The reorganisation¹ of the current German strategy for civil protection agreed by the Standing Conference of Federal Interior Ministers and Senators is based on the **principle of shared responsibility** between the national level and federal states (Länder) for integrated risk and crisis management. In exceptional situations, as well as in accordance with the distribution of constitutional competence, effective civil protection shall be ensured across federal states by joint effort of Federal and Länder governments. Further essential components of federal German security architecture are relief organisations and Critical Infrastructures (KRITIS) and organisations.

The law on *Civil Protection and Disaster Assistance* entrusts the Federal Office of Civil Protection and Disaster Assistance (BBK) with '[...] the planning, implementation and evaluation of interministerial and interstate crisis management exercises'². It was on this basis that in 2013, the sixth interstate crisis management exercise on **Exceptional Biological Threats** (LÜKEX 13) was conducted. LÜKEX exercises are strategic exercises primarily focusing on the strategic management level, especially in connection with interministerial crisis management units and political-administrative management units at both Federal and Länder level. Following a societal approach to achieve effective crisis management, enterprises and operators of safety-relevant facilities and systems that are affected by the planned exercise scenarios have to be integrated into the exercise.

Overall responsibility for the exercise lies with the **Federal Ministry of the Interior (BMI)**. Each exercise is conducted, prepared and evaluated by a project team within BBK. This so-called **Project Team LÜKEX Bund** cooperates with the individual LÜKEX project groups of all participants.

The cycle of the LÜKEX 13 exercise on 'Exceptional Biological Threats' started roughly 18 months prior to the actual core exercise conduction. The central component of the exercise – the preparation phase – involved the step-by-step and realistic development of the exercise scenario in consultation with all participants in cross-departmental and interdisciplinary workshops. Participants also utilised the preparation phase to inspect their own crisis management structures and processes, as well as to eliminate any weak points prior to carrying out the exercise. In some cases, the exercise was also used to test new procedures and structures, e.g. existing or revised guidelines and instruction manuals on the respective aspects of crisis management.

The two-year cycle culminated in the exercise conduction on 27 and 28 November 2013. On these two exercise days, participants' actual crisis management structures were involved to overcome the fictitious national crisis. Exercise conduction was followed by the evaluation phase, which lasted until April 2014. The interdisciplinary and interdepartmental participation and extensive mutual exchange during the entire LÜKEX process resulted in the formation of cooperation networks, thus contributing to sustainable improvements in real-life crisis management.

1] New Strategy for the protection of the people in Germany; Resolution passed by the Standing Conference of the Federal Interior Ministers and Senators on 6 June 2002 and 6 December 2002

2] Law on civil protection and disaster assistance (Civil protection and disaster assistance law (ZSK) of 25.03.1997, last amended 29.07.2009)

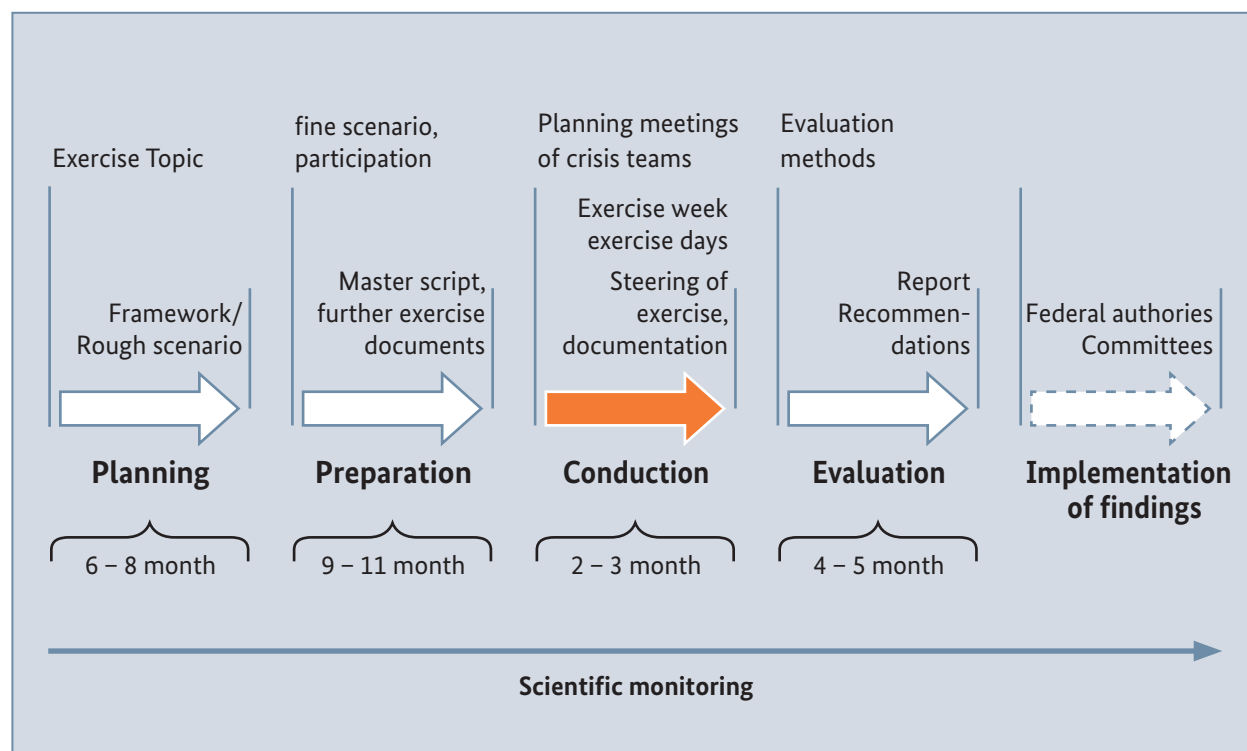


Fig. 2: Schematic image of the LÜKEX exercise series

The exercise scenario was based on the practical experience gained from EHEC/HUS cases in 2011, as well as on other possible threats. It included the deliberate addition of the toxin Ricin to the food chain and a simultaneous intentional contamination with Tularaemia pathogens at a major public event. The LÜKEX 13 scenario focused primarily on crisis management actors and structures involved in the health, health-related consumer protection and internal security sectors. Due to the large number of sick individuals involved, the scenario started mainly affecting the health sector. During the course of events, one of the clinical pictures was identified as stemming from a food-borne disease. Proof of deliberate food contamination found on the second day of the exercise led to the initiation of police investigations, thereby making it a matter for internal security. In the course of the exercise, events therefore developed from a health issue to one of consumer protection and finally to a security issue.

The **main purpose** of the exercise was to examine and improve cooperation structures at Federal and Länder level, as well as at the strategic level of crisis management in enterprises and organisations. Another focus was on internal and external crisis communication.

Evaluation of the LÜKEX exercises is based on a qualitative approach derived from a number of different sources. These include, first and foremost, observations and assessments by participants and resulting recommendations for improving German strategic crisis management in cases of exceptional biological threats.

This *Comprehensive Exercise Report LÜKEX 13* includes chapters on (1) participants, (2) crisis management-related findings, (3) technical findings relating to the exercise topic, (4) LÜKEX process analysis and a (5) summary.

Chapter 1 introduces and describes the role of intensively involved participants in the process of preparing and conducting the exercise, some of which exercised within their actual crisis-management structures. **Chapter 2** describes findings relating to the work of crisis staffs, the manning and role of crisis committees, as well as other administrative crisis-management processes.

Chapter 3 discusses technical issues in the context of ‘exceptional biological threats’ from the perspective of the health, health-related consumer protection, internal security and civil protection sectors. In **Chapter 4** the focus is on the LÜKEX process itself, as an instrument with which to optimise national crisis management. The **Summary** outlines the key observations and findings from the LÜKEX 13 exercise series.

1.

Participation

Content and extent of participation

Content and extent of participation is determined by the topic of the exercise, its agreed objectives and the exercise scenario. The different levels of involvement depend on each participant's projected use of resources. This results in varying degrees of involvement in the exercise phase and determines whether a participant's actual crisis management structures are involved in conducting the exercise (exercising participant) or whether participation is simply in the form of a simulation cell (SimCell). Manning and structure of exercising command units should be the same as those with responsibility during an actual crisis.

LÜKEX 13 participants were actors of national government, the federal states, the private sector as well as non-government bodies and international organisations and were involved to different degrees. A total of about 2,000 individuals were involved in the exercise conduction either as active participants in crisis staffs or as members of the exercise control organisation.

Active participants included, in particular

- › Six federal departments,
- › 19 federal authorities,
- › Three federal states with intensive participation, referred to as 'intensively exercising states': Berlin, North Rhine Westphalia and Thuringia,
- › Six federal states with less intense participation, referred to as 'exercising federal states': Baden-Württemberg, Brandenburg, Lower Saxony, Saarland, Saxony and Saxony-Anhalt,

- › One company with intensive participation, referred to as an 'intensively exercising enterprise',
- › 23 businesses and associations with less intense participation,
- › Three Poison Control Centres (Giftinformationszentren),
- › Four relief organisations and the Federal Agency for Technical Relief (THW),
- › One diplomatic mission,
- › European and other international participants.

A number of scientists from the academic field were also involved in preparing and conducting the exercise. LÜKEX 13 also received technical support from the Commission on Civil Protection of the Federal Ministry of the Interior.



Fig. 3: Holistic approach to exercise participation:
LÜKEX as a platform for developing interdepartmental and interdisciplinary crisis-management networks.

Simulation cells (SimCells)

SimCells have a dual function as they are half-way between exercise control and active participants. As exercise control, they know the exercise structure and all details of the scenario. In their role as active participants they represent authorities, organisations, businesses or individuals that – despite not being actually involved in the exercise – are required for its realistic setting. In this role they only use that knowledge available to the active staff unit at any given time. A realistic response to technical issues is assured.

Exercise control organisation

In a strategic exercise, exercise controllers are the authorised representatives of the individual participants commissioned with planning, preparing and conducting the exercise. As opposed to active participants, they are familiar with the exercise scenario and the desired objective. The exercise control organisation consists of project team members that were responsible for planning the exercise during the implementation phase. They also include exercise observers.

2.

Crisis Management-related Findings

2.1 Länder Level

Participants rated crisis management at federal-state level as being overall successful and effective. In the course of the exercise, the **intensively exercising states** (Berlin, North Rhine Westphalia and Thuringia) called up crisis staffs that would also carry responsibility in an actual crisis. Furthermore, they exercised some of their key structures (crisis committee of federal state government with one department being in charge). On top they also had to deal with a switch of overall responsibility from the department being in charge to centralized crisis management structures. **Exercising federal states** on the other hand created interdepartmental SimCells.

There was cross-departmental consensus that a sounder personnel base would be required to effectively deal with a long-lasting crisis.

The scenario written for the federal state of **Berlin** was planned in such a way that exercising staff would have to trigger a disaster alert during the exercise, thereby allowing the activation of Berlin's special crisis management structures. These structures include Central Crisis Management Berlin, resp. Central Operational Command Berlin, being Berlin's principal coordinating crisis committee. In view of their overall responsibility for the area around the capital Berlin, a close cooperation between staff units from federal states Berlin and Brandenburg, was thought to be essential and found to have functioned well during the exercise. The participation at various administrative levels (region, technical administration, central crisis management) during the exercise also proved effective. In the federal state of Berlin, a diplomatic mission also became involved in the exercise conduction phase. The Berlin police already maintain direct communication plans with diplomatic missions. This was successfully included in the exercise and proved useful in coping with the situation.



Fig. 4: Briefing on LÜKEX 13 for the head and staff command of the Senate Administration for the Interior and Sports in the federal state of Berlin.

In North Rhine-Westphalia, the scenario was managed by way of general crisis management structures and area-specific crisis management structures, especially in the field of consumer protection. At top level, the state crisis staff attached to the Ministry for Internal Affairs and Municipal Issues operated consistently under the direction of the primarily affected Ministry for Climate Protection, Environment, Agriculture, Conservation and Consumer Affairs.



Fig. 5: In crisis situations North Rhine Westphalia will install a control centre for food and feed safety in the North Rhine Westphalian State Agency for Nature, Environment and Consumer Protection.

These structures have proved to be robust and capable of effecting prompt cross-departmental consensual decisions with all the technical authorities concerned. In general, this also applies to alliances

with business enterprises involved. Existing crisis staff structures at federal-state and municipal level were also successfully implemented.

Also shown to be effective, were the **Thuringian crisis management structures**, which provide for the coordination and regulation through a state crisis staff supported by a specialist team from state ministries. Linked documentation systems ensured the immediacy of information, providing an up-to-the-minute decision-making basis for staff units. On the second day of the exercise, the inter-ministerial task force was called to reach an inter-departmental consensus and define a common safety strategy.



Fig. 6: Preparation meeting of exercise participants in the Free State of Thuringia

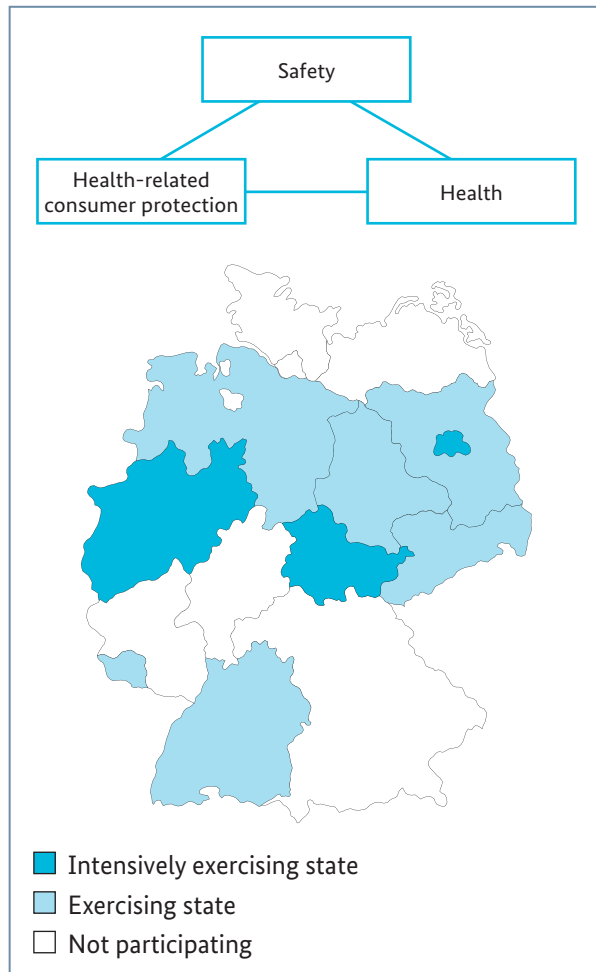


Fig. 7: LÜKEX 13 focused on health, health-related consumer protection and internal security issues, both at Federal level and the level of federal states ("Länder").

Recommendations for crisis management at Länder level

- › An IT-supported operations, information and reporting system (with defined interfaces) to provide information and a decision-making basis for staff units should be implemented as widely as possible in order to link all crisis management participants wherever they are. A back-up system should also be provided to counteract system failures. Defined communication structures and reporting channels should be an integral part of national crisis management.
- › Interfaces between technical and strategic levels must be carefully examined with regard to reciprocal information needs (overall situation report).
- › The respective authorities and federal departments, as well as the other states should also be informed whenever one federal state declares a disaster situation or activates disaster alert.
- › A permanent personnel pool (back-up team) should be made available to avoid a shortage in human resources for staff work, compensate personnel bottlenecks and accommodate longer-lasting situations.

2.2 Federal Level

With the disclosure that biological agents had been introduced during the fictitious exercise scenario, the situation developed as intended from purely being a health issue to a combined issue involving consumer protection and ultimately one of internal security. This was therefore the special challenge intended by the exercise and, in accordance with the changing situation, a leadership changeover was executed, with responsibility passing from the Federal Ministry of Health (BMG) to the Federal Ministry of Food and Agriculture³ (BMEL) and – on the second day – to the joint BMI/BMG crisis staff with the extended

participation of BMEL, whilst maintaining respective departmental crisis management units. The changeover was generally managed efficiently.

In this context, telephone conferences – and video conferences, where necessary – were an essential and suitable instrument for reaching a consensus on assessments and taking short-term decisions at federal level. However, some technical and organisational weaknesses have been identified during the exercise.

2.2.1 Health Sector

The **BMG crisis staff** was able to successfully apply its new crisis management structures for the first time. The new special structural organisation therefore allowed a rapid consensus to be reached on language regime and FAQs⁴ within the crisis staff involved, including the Robert Koch Institute (RKI), the Federal Center for Health Education and a citizens' hotline operated by the service provider Telemark Rostock.

It proved expedient that liaison officers from the business sector were either present at crisis staff meetings, or took part via videoconference. This meant timely comprehensive decisions could be taken (including prognoses).

2.2.2 Health-related Consumer Protection Sector

The allocation of specific tasks within **BMEL** also proved expedient, as well as effective and extremely efficient for dealing with a crisis of similar dimensions as LÜKEX 13. This has created a good basis for the allocation of tasks between the BMEL, Federal Office of Consumer Protection and Food Safety (BVL) and Federal Office for Risk Assessment (BfR).

Overall, this confirmed the immense significance of swift information transfer between an authority's cross-departmental committees and its participants in the exercise.

3] Until December 2013 BMELV, Federal Ministry of Food, Agriculture and Consumer Protection

4] The acronym FAQ (frequently asked questions) means a set of often asked questions and coordinated responses on a specific subject matter. In this case, FAQ refers to anticipated queries from citizens and the media.

2.2.3 Internal Security and Civil Protection

In specific situations, efficient crisis management can involve the formation of interdepartmental crisis staffs modelled on the BMI crisis staff. Repeated participation in crisis exercises and its proven structure resulted in a highly professional operating standard of the **joint BMI/BMG crisis staff with extended BMEL** participation, which was activated on the second exercise day. Federal

security services also participated with a joint SimCell, which ensured both the necessary assessment of the situation, as well as the flow of scenario-relevant information from the federal state authorities. The federal security services were required particularly with their central offices or **coordination function**.



Fig. 8: Meeting of the joint BMI/BMG crisis cell with extended participation of BMEL in the exercise context.

2.2.4 Inter-organisational and Cross-departmental Cooperation

The cooperation between **BMI and BMG** was good, efficient and smooth. The exchange of liaison personnel between staffs proved largely effective. It was shown that established structures and procedures were an important instrument in the BMEL/BMG cooperation and the respective subordinate authorities, especially when identifying the source of food-borne outbreaks. In particular, the permanent presence of the RKI in the crisis committee for health-related consumer protection was found to have positive impact.

The presence of department and federal agency representatives authorised to take decisions in the **joint BMI/BMG crisis staff in its extended form with participation of BMEL** ensured that decision-making was timely and effective. Mere technical communication without the involvement of individuals would have resulted in frictional losses. Whereas the **health and health-related consumer protection** sectors operate more or less well together due to a basis of common experience in actual cases, cooperation with the **security forces**, particularly in the field of food-related crises, is still unusual.

Collaboration between technical authorities and the **BBK** proved reliable. Outcomes included a report by the German Joint Information and Situation Centre (GMLZ), which was agreed on and released in the context of the exercise.

Diplomatic missions that participated or were represented in the exercise in close consultation with the Federal Foreign Office expected comprehensive information on their nationals concerned and timely notification by the competent authority. Requests for information often conflicted with data protection laws on the disclosure of personal data.



Fig 9: Software-based situation report/digital situation map

Crisis management recommendations at Federal level

- › A departmental leadership changeover at Federal level during a crisis situation should be immediately communicated at federal state level.
- › From the perspective of the federal states, it would be desirable to have a single point of contact at national level for the duration of the joint crisis management.
- › Concerning Federal government, the Länder suggest setting up common crisis staff structures for specific crisis situations – in addition to those already existing – with all the departments concerned, or at least to hold joint meetings.
- › Stronger linkage of BMEL and BMG crisis staff, e.g. through joint meetings or the creation of joint structures, could facilitate even more efficiency and accelerate the joint response in an emergency.
- › The participation of representatives with decision-making mandate in joint crisis staffs should be continued. Arising conflicts and shortages in personnel are to be offset by replacement schemes planned in advance.
- › To increase planning security and make better use of resources, anticipated regulatory requirements in emergency situations, such as coordinating bottleneck resources or public relations, should be addressed prior to a developing crisis.
- › The departments bearing responsibility in an emergency must resolve data protection issues in line with the disclosure of the personal details of affected individuals, e.g. by the health authorities or diplomatic missions.
- › Improvements are to be made to the technical facilities for telephone conferences.

2.3 Cooperation between Federal Government and State Governments

The cooperation between Federal and Länder governments generally functions well and is of a high professional standard. In this context, it also became apparent that the designations of crisis

management facilities with corresponding functions and competence differ between different actors and can therefore not always be correlated.

2.3.1 Health Sector

Collaboration in the health sector, especially in respect of telephone conferences involving the working group of the highest Länder health authorities and the associated infection-protection task forces was shown to be professional, practiced

and structured. The *General Administrative Act on the Coordination of Infection Protection in the Event of Epidemics* passed on 12 December 2013 shortly after the exercise will provide the future basis for continuing the effective work.

2.3.2 Health-related Consumer Protection Sector

In the light of previous relevant experience⁵, collaboration in the field of health-related consumer protection was generally effective. This applied, in particular, to regular, federally mediated (BMEL) telephone conferences with the **Food and Feed Safety Crisis Council and the Food and Feed Safety Crisis Staff**. They were conducted effectively and consensus-oriented, allowing the comprehensive exchange of information and far-reaching resolutions on further actions. The Technical Information System for Consumer Protection (FIS-VL) was utilised to organise the Food and Feed Safety Crisis Council and the Food and Feed Safety Crisis Staff. As this is a prerequisite of crisis management, it should be developed further.

In collaboration with the RKI, the Food and Feed Safety Task Force set up by decision of the crisis staff within the BVL, has become an established and significant expert body in the field of determination of causes. Details of the role, assignment and methodology of the Food and Feed Safety Task Force between Federal government and the Länder could be better coordinated and more transparently communicated. For the most part, procedures laid down in a cooperation agreement between both parties for an emergency involving food and feed safety have proved effective. Participants' collaboration was characterised by a high degree of professionalism. The Länder, however, still see some room for improvement in the agreement, expressing the wish, for example, for even greater involvement of the health sector in appropriate scenarios.

5] 2010 'The dioxin scandal' around dioxin-contaminated feed fat; 2011 'EHEC/HUS epidemic' due to the presence of germs on sprouts; 2012 'Noro-strawberries' – outbreak of norovirus enteritis in mass catering due to deep frozen strawberries contaminated with the norovirus; 2013: 'Horsemeat scandal' due to the sale of food declared as beef products, but actually containing horsemeat.

Excerpts from the cooperation agreement between the Federal government and Länder governments on food and feed safety in an emergency

§ 2 Crisis council on Food and Feed Safety

- (1) The crisis council comprises [...] the heads of Federal and Länder departments for food, resp. feed safety and the chairperson of the crisis staff. The Länder shall be represented in the crisis council. [...]
- (3) The crisis council shall agree
 - a mutual assessment of the situation,
 - basic requirements for overcoming the emergency situation,
 - crisis communication at political level, and
 - other fundamentally important issues, political or otherwise.
- (4) If necessary, the crisis council shall convene a Food and Feed Safety Task Force [...]

§ 3 Crisis Staff Food and Feed Safety

- (1) The crisis staff comprises [...] representatives of Federal and Länder-ministries with responsibility for food and feed safety, as well as the office manager representing the Task Force, if applicable. Meetings are ordinarily held at head-of-department level. [...]
- (3) The crisis staff is tasked with ensuring the efficient and effective coordination of competent authorities' involvement in the crisis situation. [...]

§ 5 Task Force Food and Feed Safety

- (1) In the event of a crisis council decision [...] a task force comprising experts from Federal government and Länder governments will be set up. [...]

2.3.3 Cross-departmental

The health sector believes that, in an emergency involving food and feed safety and despite having interfaces with the health sector, consumer affairs are underrepresented in the cooperation agreement between Federal government and the federal states set out above. It takes the view that there should be a stronger involvement of federal state healthcare and BMG divisions.

Recommendations for improving Federal government – Länder cooperation

- › The exercise confirmed that an agenda is required for a more precise definition of the role, tasks and methods of the Food and Feed Safety Task Force. This agenda should also take into account all participants as mentioned in the 'cooperation agreement between Federal government and the Länder in an emergency involving food and feed safety'.
- › Greater use must be made of existing structures in the Technical Information System for Consumer Protection to transmit information.
- › To simplify staff work, the designations of different crisis management facilities should be reviewed to establish whether they could be harmonised.

2.4 International Cooperation

The exercise also included health, health-related consumer protection and internal security sectors at an international level. This involved, first and foremost, servicing official reporting obligations and procedures, the exchange of information and responding to enquiries from the European Union.

There was an expected level of communication between the various authorities within the **operational area of the BMEL** with the corresponding authorities at European and international level.⁶ The network of the European Rapid Alert System for Food and Feed (RASFF) was also triggered during the exercise. The exchange of information between states via rapid alerts also proved its worth.

Communication between the operational area of BMEL authorities with the corresponding authorities at European and international level⁷ did take place as expected. In particular, the Early Warning and Response System (EWRS) reports and the International Health Regulations (IGV) reports, as well as status reports from the RKI, informing European and international level of events, were transmitted in English.

Police cooperation at European level was simulated by including a representative of Europol in the Federal **safety and security authority** SimCell.

2.5 Special Issues

2.5.1 Involving Enterprises

Critical Infrastructures (KRITIS)

Critical infrastructures are organisations and facilities that are hugely important to the state. Their failure or disruption would result in long lasting supply shortages, considerable disruptions to public safety and other dramatic outcomes.

BMI (pub.) (2009): Nationale Strategie zum Schutz Kritischer Infrastrukturen (KRITIS-Strategie), 17 June 2009, Paderborn, URL: <http://www.bmi.bund.de/SharedDocs/Downloads/DE/Broschueren/2009/kritis.html> [21.05.2014].

6] At international level the European Commission was represented in the consumer protection sector by the Directorate-General for Health and Consumers DG SANCO (G4, Food, Alert System and Training). Other participants in this sector were the European Food Safety Authority and the INFOSAN network, operated jointly by the World Health Organisation and the Food and Agriculture Organisation of the United Nations.

7] At international level, the European Commission participated in the health sector with the Directorate-General for Health and Consumers DG SANCO (Unit C3, Health Threats) as well as the European Centre for Disease Prevention and Control and the World Health Organisation.

In situations involving risk and damage, comprehensive interdepartmental collaboration and effective crisis management always involve interactions between public and private crisis management committees in the areas affected. This alone will enable the creation and application of synergies, both in respect of experience, as well as material resources. It especially applies to those KRITIS enterprises that, if compromised, would result in supply shortages or public disturbances.

In the context of the scenario of a food-related exceptional biological threat, the significance of the role played by enterprises and associations in the food industry became apparent.⁸ Private players in the health sector, such as clinic operators, were only marginally affected by the exercise scenario. Due

regard was given to the perspective of the economy by the partial inclusion of experts in staffs at Länder level.

A focus of the exercise was the cooperation between private players and the responsible authorities at municipal, Länder and national level. An additional factor was the key role played by private-sector interactions, including associations. Participating enterprises also took the opportunity to put their internal crisis management structures into practice. This included such integral aspects as handling contaminated foods, dealing with sick individuals in the company, tracking and tracing products, product assurance and product recall, as well as the notification of authorities and internal and external communication.

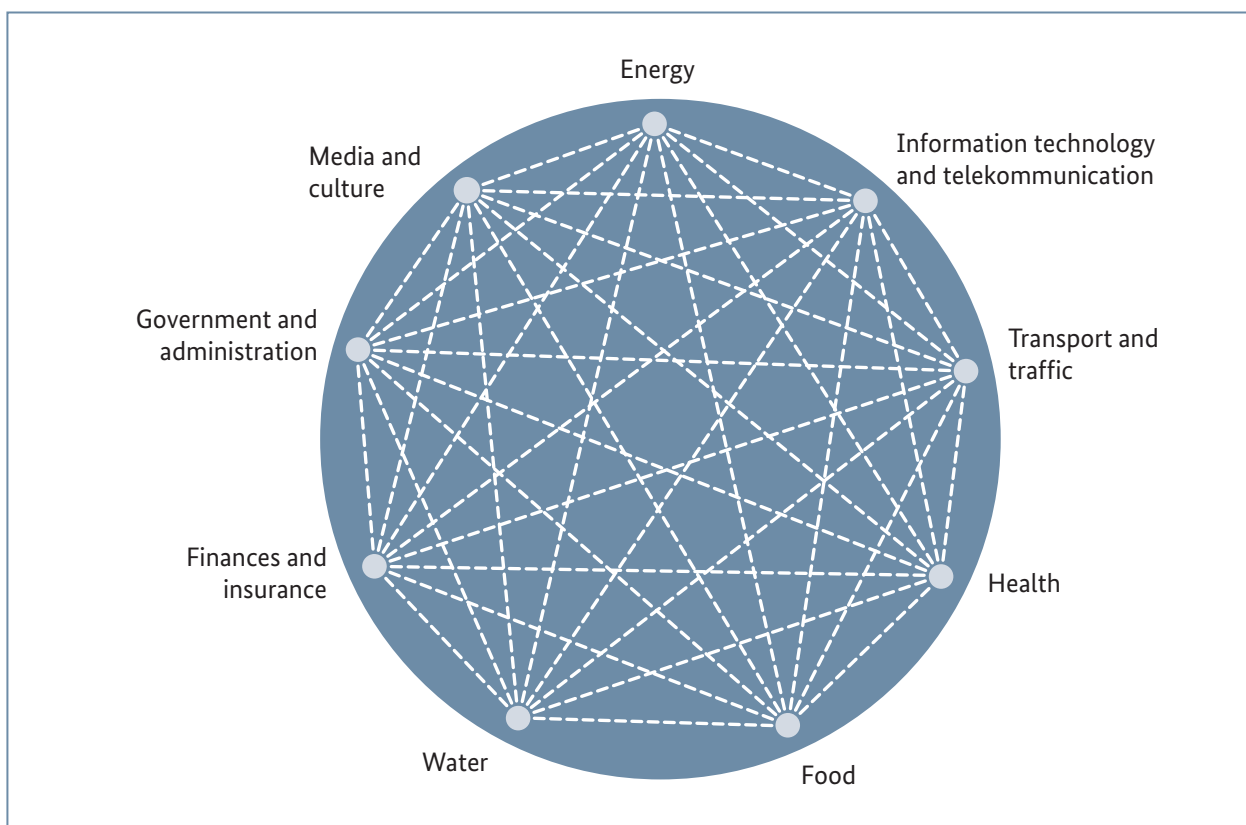


Fig. 10: Interdependencies in the field of critical infrastructures.

8] Also affected in the context of the exercise were manufacturers in the wholesale and retail industry, a company for quality assurance and safety, as well as associations/umbrella associations from the food industry and retail trade.

Regarding the interaction between representatives in the economic sector and politics the exercise revealed some potential for optimisation. In contrast to plans in the run-up of the exercise, there was no ‘closing of ranks’ in the form of a joint coordination session during the exercise as agreed by the business and political sectors in the aftermath of the EHEC crisis. The overall result is that for a number of

reasons, the interests of the respective enterprises are not sufficiently taken into account by public sector crisis staff units. A particular problem during the exercise was the lack of information flow. The direct cooperation between enterprise and municipal and technical authority was, however, described as productive and expedient.

Recommendations for the inclusion of KRITIS enterprises

- › The inclusion of the business sector in general security tasks and crisis management must automatically result in this support receiving a permanent place in crisis management relating to the degree to which it is affected and at the appropriate level. This involves the further formalisation and institutionalisation of collaboration between the public and private sector. This can be best achieved by building on existing structures and collaborations.
- › Prompt information exchange with the enterprises concerned must be guaranteed in crisis situations.

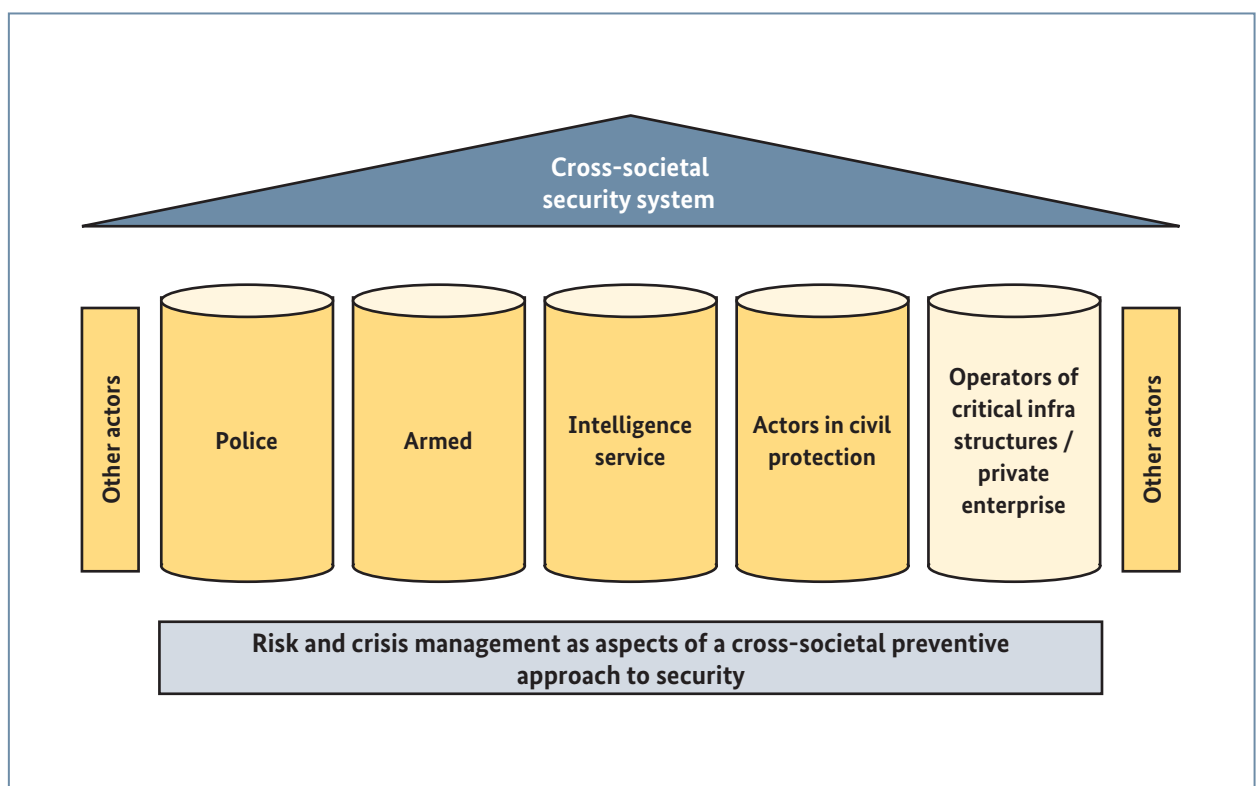


Fig. 11: Private-sector actors are mainstay of society's security system.

2.5.2 Crisis Communication

In accordance with its relevance for successful strategic crisis management, crisis communication was identified and dealt with as a key factor by participant staff units. The exercise took into account the public's increasing and direct use of the Internet, social media, hotlines and telephone numbers for public authorities.

Wherever expedient, media work was integrated into crisis management. With regard to press releases, press invitations and media queries, public relations, cooperation with the BMEL, the BMG, the BMI, BVL, RKI and the BfR, cooperation was good and ran smoothly. The advantages of installing joint staff units or coordination centres for crisis communication were again demonstrated. These should therefore be advanced further.

The challenge is still to coordinate media and public relations work between the Länder and national level as well as respective Federal departments if harmonised and consistent communication is to be attained. The fast availability of consistent information is a decisive issue in official public relations. A common platform on which press releases by government and federal state staff units can be viewed at any time seems to be essential. It also became apparent that public authorities were releasing too much conflicting information.

The exercise also showed the importance of precisely describing official measures in external communication. The public must be given clear information about who does what in a crisis. In the context of health-related consumer protection at



Fig. 12: Journalists at a press conference during the exercise.

Federal and Länder level, the exercise participants generally observed and adhered to the principles of crisis communication laid down in the *Cooperation Agreement between Federal Government and the Federal States in an Emergency involving Food and*

Feed Safety. The development of a list of FAQs for specific crisis scenarios prior to a crisis proved both expedient and necessary. Merging and linking FAQs, homepages and guidance for the public also proved helpful.

Recommendations for crisis communication

- › In a crisis, appropriate human resources must be maintained to make certain the required volume of press and situation reports can be prepared each day and ensure the press officer is available at all times.
- › The expediency of installing a citizens' information centre at federal level in the event of an emergency should also be considered. This central office should edit content from the respective competent authorities, resp. crisis staff units, and prepare it for specific target groups (e.g. link to website) thereby avoiding loss or distortion of information.
- › The aim should be to provide the appropriate federal state office with advance information on the subject and content of press releases or press conferences.
- › The exchange of information between official sides and CI enterprises should be strengthened (via trade associations, if necessary) – also prior to a crisis.
- › When important information about a crisis becomes available, the aim should be to inform the public immediately by providing at least a preliminary assessment on how potential victims are required to act.
- › It is extremely important to explain to the public as soon as possible what the current status of events is, what measures are being taken to combat the crisis, and how tasks have been allocated. Uncertainties and the lack of information should also be communicated.
- › The introduction of a central data management system could also facilitate processing and the release of FAQs. FAQs prepared by the Federal authorities should be brought up to date and made available to federal state authorities as soon as possible.

2.5.3 Internet and Social Media

As communication with the public – including via social media – is a key factor in successful crisis management, the same assessments apply that have already been described in the general section of the chapter on crisis communication. Overall, it can be established that the various means of communication simulated during the exercise clearly showed the importance of making information available via Internet and social media. As social media users expect extremely fast response times, the respective offices (usually the press office) responsible for the active use of social media for public relations must ensure a robust and

resilient personnel structure is available to fulfil this expectation.

As online communication is also fast becoming a key factor of crisis communication, it is essential to address the issue of internet communication. The passive use of social media, i.e. monitoring, to assess the overall situation during the exercise also proved practical. It is extremely important that the language used to communicate via social media is easily understood, especially in a biological-health situation such as addressed in the LÜKEX 13 scenario.

Recommendations for the use of social media in a crisis

- › Information provided via internet must be suitably presented for this medium (e.g. by using graphics and video clips).
- › It is recommended to create a social media review, analogous to a conventional press review.
- › It is recommended that each authority or enterprise develops an appropriate concept for the use of social media for public relations – including the possible use of monitoring instruments. If an individual need is identified, a social media strategy should then be developed for the respective field.
- › A review should be carried out to establish whether the public would be interested in an RSS feed reader (subscriber function) of the kind currently being used for storm warnings, insofar as it is not already available.

2.5.4 Involving the Population/Psychosocial Crisis Management

The exercise highlighted the importance of crisis staff units responding adequately to reactions from the civil population in crisis situations, as well as the need for interaction with the public in a critical situation. There have been general improvements in psychosocial crisis management and awareness of the wants and needs⁹ of the population in complex situations involving damage, but there is still room for further improvements in the future. In the exercise, for example, reactions to the need of psychosocial care for the population were only cautiously included in overall crisis management and delayed, until the second day of the exercise. In respect of a standard line of communication, information consistency must also be improved to ensure transparent and timely information transfer to the civil population, as well as own staff.¹⁰

In a complex situation involving damage, crisis hotlines are an important source of information for the public, as well as being an important means of circulating information. The quality of the information via hotlines during LÜKEX 13 varied.



Fig. 13: BBK staff calls the exercised hotlines pretending to be worried citizens.

A positive aspect was that information provided by a caller was immediately acted upon and researched, so that subsequent callers could be given more up-to-date information. Also positive was the comprehensive nature of the information and counselling, especially in the case of individuals at risk (expectant mothers, the aged, individuals with pre-existing illnesses and worried parents). The hoped-for hotline network and coordination was generally successful and no contradicting information was given out.

Recommendations for involving the civil population in a crisis

- › To raise awareness among those in command for the strategic significance of psychosocial crisis management in overcoming complex situations involving damage, it is recommended to train them to deal with this aspect of such situations, as well as to monitor the extent to which psychosocial crisis management experts have been integrated into the respective crisis staff units for such situations.
- › In coping with the situation, risk and crisis communication should specifically aim at actively involving members of the public as competent partners.
- › Internal information management between crisis cell and staff, e.g. via hotline, should be improved and practiced. It is recommended to make greater use of social media to inform the public.

9] In the context of psychosocial crisis management, the following distinction is made between wants and needs. The wants of those concerned refer to the subjective expression of a concern (what does the person concerned want in a given situation?). Needs, on the other hand, refer to the question of what, from the professional perspective, should be offered to the person concerned.

10] cf. chapter 2.5.2, Crisis communication

2.5.5 Civil-military Cooperation

LÜKEX 13 provided the opportunity to practice the organisation and procedures involved in civil-military alliances at strategic level. In accordance with established procedures, assistance was provided through connecting elements, in particular with regard to the possibility and limitations of administrative assistance from the Federal Armed Forces (Bundeswehr). In the context of a civil-

military cooperation, LÜKEX 13 also provided the opportunity to demonstrate the special abilities of the Federal Armed Forces in the field of medical protection against biological hazards. In the federal states, the cooperation with Federal Armed Forces liaison personnel in staff units was good and constructive. New structures and personnel changes, however, make further training necessary.

Recommendations for civil-military cooperation

- › Federal Armed Forces' competences should be integrated into crisis management, in particular in respect of its specialist skills.
- › The new structures, responsibilities and civil-military cooperation procedures created during Bundeswehr restructuring must be communicated both to civil staff units, as well as to internal active command authorities.

3.

Technical Findings on the Subject of ‘Exceptional Biological Threats’



Fig. 14: Analysis of dangerous pathogens at the laboratory

3.1 Health

LÜKEX 13 subjected health system structures to a substantial enduring test. The exercise showed that the German health system is able to ensure medical care for the population, even in a major health crisis situation.

For critical outbreaks in the case of rare or deliberately caused diseases or unusual toxin poisoning, an increased need for counselling is to be assumed at Länder and national level. Further improvements to the civil health protection system therefore require the development of specific, technical, possibly also multi-agency recommendation for actions.

In the case of biological threats, the rapid determination of a cause is also extremely important if the outbreak is to be stopped quickly. The task of determining the number of cases, however, is challenging. The exercise highlighted the importance of the speedy availability of figures relating to outbreaks of illness as well as related deaths. Poison Control Centres¹¹ also play a significant role in the field of surveillance, i.e. the systematic and continuous observation of sickness or deaths. The identification and characterisation of the pathogenic agent is also a decisive factor in containing an outbreak. This is done by means of the **laboratory diagnostics** of patients' samples. Priority should be given to local analysis facilities.

If diagnostic capacities are limited, patients' and other test samples are to be prioritised and specifically requested – through and from Länder health and veterinary authorities, if applicable, and in close cooperation with the RKI.

Special protective measures and experience are required to **remove and analyse environmental**

samples from potentially contaminated buildings and areas. To do this, the Länder require the support of specialist work groups. An Analytical Task Force Biology (Task Force Bio) with four sites for the receipt of primary samples, e.g. suspicious objects, is currently being set up. In addition, the Task Force Bio is currently undergoing practical testing at the RKI. The Federal Armed Forces' medical service has a highly mobile biological laboratory belonging to the Task Force for Medical NBC Protection¹².

A loophole was revealed in respect of toxins. It was discovered that the federal states' obligation to notify the RKI according to the Act on Infection Protection only applies to toxin poisoning if the symptoms are similar to those of an infection and the pathogenic agent is unknown. However, it is relevant that for a comprehensive overview of the likely development of the incidence of a disease such notifications can also be made once the toxin has been identified.

In the run up to the exercise, intense discussions were held in respect of resources and skills that could be affected by supply shortages in situations involving major damage. Such supply shortages were also revealed at local level during LÜKEX 13. These affected the areas of:

- › stationary medical care, such as hospital beds, isolation beds, medical-technical equipment, and, in particular, human resources;
- › mobile medical care such as in doctors' surgeries, medical care centres, nursing services;
- › medical supplies, drugs, personal protective equipment.

11] A list of the roles and important activities of the Poison Control Centers, as well as links to the different locations in the entire German-speaking area can be downloaded from the following website German society for clinical toxicology, URL <http://www.kliniotox.de/3.0.html> [21.05.2014].

12] NBC protection is the defence against nuclear, biological and chemical dangers, as well as the decontamination of individuals and objects following large-scale damages or catastrophes. In the field of civil protection, the term NBC is frequently replaced by the synonym CBRN (Protection against the effects of chemical, biological and radiological and nuclear dangers). Cf. definitions in the BBK glossary; http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/Praxis_Bevoelkerungsschutz/Band_8_Praxis_BS_BBK_Glossar.pdf [26.05.2014].

It was not possible to provide a clear situation report with regard to the availability of resources, e.g. record of the number of hospital beds available nationwide. Owing to a lack of clear regulations during the exercise, the GMLZ took over nationwide coordination for part of the required resources.

A particular challenge was the **absence of hospital personnel due to illness**. The same applies to the closure of entire hospital wards.

In the event of exceptional biological situations, not only must timely recommendations be given on protection against infection (prophylaxis, personal protective gear), but treatment may also be required.



Fig. 15: Warning of risk of infection in a hospital in the context of the LÜKEX 13 scenario.

Recommendations for the health sector

- › Specific, specialist, but possibly also multi-agency recommendations for actions for health-related civil protection are to be developed and made available. Public health services must be provided with sufficient qualified personnel to cope with crises caused by an outbreak of sickness.
- › Nationwide mortality surveillance (the systematic and continuous monitoring of fatalities) is recommended. Important is the current generic number of deaths according to age and region, not the cause of death.
- › Continuous morbidity surveillance (syndromic disease surveillance) including monitoring hospitalised cases, especially for person-to-person transmittable respiratory diseases, is recommended, as is the extension of such surveillance to pathogens in an emergency.
- › In connection with outbreaks of diseases, an agreement is needed between the RKI and the federal states on the prioritisation of patients' samples and sample transport. The same applies to health-related consumer protection.
- › In addition, a small number of laboratories for the diagnostics of highly pathogenic agents and toxins should be strategically located around the country. Laboratory networks – including at European level – should also be encouraged and developed to overcome deficiencies and facilitate Europe-wide surveillance.
- › In respect of laboratory networks, regulations are required for dealing with notification obligations pursuant to Infection Protection Law and the law on Protection from Hazardous Substance (Law on Chemical Substances), particularly to improve surveillance.
- › The potential role of Poison Control Centers in crisis management (early identification, monitoring and guidance) and the availability of the required resources should generally be reviewed.
- › In respect of dealing with potential resource shortages, the following recommendations are made, whereby recommendations apply both to the health sector and the (health-related) consumer protection sector:
 - › Strategies and regulations aimed at averting potential resource shortages at short notice should be developed at Federal and Länder level. Before that, a survey is to be made of existing health-crisis strategies in the federal states. The coordination of available resources throughout the federal states, especially in the field of stationary medical care (bed capacities), as well as in respect of medical supplies, drugs and human resources should be addressed by the federal states' highest health authorities' task force.
 - › In the field of mobile medical care, early integration of the German Association of Statutory Health Insurance and Medical Chamber (Kassenärztliche Vereinigung und der Ärztekammer) in crisis management is necessary to ensure an adequate mobile medical care for the public.
- › Supplies of drugs, medical supplies and personal protective gear at national and federal state level should be reviewed and updated, if necessary. Supplies should be centrally catalogued and maintained, if necessary, in a common database at the GMLZ.

3.2 Health-related Consumer Protection

The LÜKEX 13 scenario clearly confirmed the path taken in health-related consumer protection. Satisfactory competence and expertise to overcome such situations is available both at Federal as well as Länder level.

The issue of the **legal basis** of responsibility for securing and destroying food contaminated with ricin could not be established during the exercise,

as participants' main objective was to deal with the situation pragmatically. The exercise revealed a need for improvements to the interaction between official laboratories when dealing with food samples, including with laboratories in the private and academic sectors, where applicable. This could involve drawing up a joint list of respective examination methods.

Recommendations for the health-related consumer protection sector

- Procedural issues concerning responsibilities for the collection and (deliberate) disposal of food contaminated with highly toxic substances should be jointly reviewed by all authorities affected, and the result communicated to the responsible authorities, enterprises and respective associations. A guideline for dealing with accordingly contaminated food should also be developed.
- In respect of food sample testing it is recommended to create, consolidate and update a central register of examination methods used by competent official laboratories, including laboratory capacities in private and academic facilities, if applicable.
- As National Reference Laboratories under Article 33 of Council Regulation (EC) No. 882/2004 link European Reference Laboratories with routine laboratories in Germany, their potential and expertise in crisis management should be taken into account more often than has so far been the case.

3.3 Internal Security Sector

According to the interdepartmental agreement reflected in the exercise framework, the main focus, at least on the first day of the exercise, did not lie on internal security. Accordingly, federal security services participated in the exercise merely by way of a joint SimCell. This, however, rendered communication and coordination far easier than it would be in reality. The **interaction between BMI and Federal Police** with other federal security agencies such as the health authorities (RKI) was generally smooth. **The information exchange between RKI and Federal Police** functioned as well as it does in actual crisis situations. Still the exercise revealed that improvements are possible. Relevant aspects concerning the information exchange process have already been implemented in April 2014 independent of LÜKEX 13.

LÜKEX 13 also required **security agencies and consumer protection authorities to cooperate closely**. The exercise revealed that there is room for improvements concerning the information exchange between authorities in this sector. There were uncertainties with regard to the transfer of confidential information. In April 2014, appropriate procedural improvements were also implemented in this sector, independent of LÜKEX 13. In connection with reporting channels, **cooperation between the criminal investigation offices** of intensively exercising states with consumer protection authorities was good, as in real crisis situations.

Recommendations for the internal security sector

- The health authorities should also notify the security services at an early stage of suspected cases with relevance for internal security.
- The security service should be responsible for the final risk assessment of a situation relating to public safety.

3.4 Civil Protection Sector

Relief organisations are to be integrated into civil protection at federal state and municipal levels. For LÜKEX 13, all organisations became involved at national level to ensure wide-ranging and efficient integration in crisis management.

The agreement to set up a joint central point of contact at the headquarters of the German Red Cross in Berlin, also referred to as 'point of entry' proved expedient in dealing with the queries addressed to relief organisations by ministries and the authorities. The development of a 'joint situation report of the relief organisations' format also proved useful for passing on information to federal ministries, as well as to the GMLZ.

Representatives from relief organisations in the crisis staff units were familiarised with operative tasks in the field of aid beyond regional capacities. Mainly, these were requests for additional means of transportation for emergency services, respirators, treatment capacities, means of transporting patients, support in the field of medical care of sick individuals, personnel to help with the psychosocial care and emergency relief, a Red Cross field hospital (via the relief-organisation coordinator at the BMI) and blood transfusions.

Recommendations for the civil protection sector

- › The cooperation developed between relief organisations in the form of an organisational structure for nationwide crisis management in the context of LÜKEX 13 should be permanently installed.
- › Relief organisations should be integrated into strategic crisis management as technical experts, especially to show or elucidate abilities and strengths.
- › A diagram showing the strengths of the respective relief organisations should be prepared, without this having an effect on the legal requirements regarding their availability for the local involvement of civil protection resources.

4.

LÜKEX Process Analysis

4.1 Exercise Planning

Again, the exercise concept described in the *Guideline for Strategic Crisis Management Exercises*¹³ proved successful in LÜKEX 13.

The exercise showed that, as a basic document, the exercise framework is essential for attaining security of actions and transparency, e.g. in respect of exercise participants. Once again it also proved useful to set up a Steering Committee LÜKEX as highest responsible body for LÜKEX. This ensured the appropriate political support for the entire process by involving representatives from the

respective Federal departments and joint Federal/Länder bodies concerned.

Staff from supporting authorities were relieved of other duties for the duration of the exercise and not only fulfilled planning and organisational tasks, but also provided valuable cross-project support. The same applies to participating KRITIS enterprises. Expedient for the progress of the project was the designation of specific individual contacts by all project participants, or the formation of their own project groups.

Recommendations for the planning phase of the LÜKEX 13 process

- › If the technical requirements and conditions of KRITIS enterprises affected by the scenario, as well as those of other potential exercise participants, are to be taken into account during scenario development, these actors must be integrated at an early stage and commitment to participation must be binding.
- › An IT application that provides participants with a decentralised means of uploading and updating their own data and availabilities is recommended.

13] cf.- Bundesamt für Bevölkerungsschutz und Katastrophenhilfe (pub.) (2011): Leitfaden für strategische Krisenmanagement-Übungen, Bonn, URL: http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/Broschueren_Flyer/Leitf_KM_Uebung.pdf [21.05.2014].

4.2 Exercise Preparation

The overall scenario was well received by exercise participants and generally found suitable for achieving the exercise objectives. The close nationwide collaboration between federal states during scenario and master script development in the planning phase proved particularly effective. The iterative scenario development at the exercise planning stage, which involved Federal and Länder project groups, was also effective. Repeated master script coordination meetings with Federal and federal state master script coordinators proved to be a decisive factor in scenario development.

As in previous exercises, the installation of a **Working Group LÜKEX 13** of representatives from the exercise participants was also expedient. Thematic workshops held in parallel to exercise preparations proved extremely useful.

Recommendations for the preparation phase of the LÜKEX process

- To ensure stronger integration, consolidation and a more compact design of the general scenario, the Federal level, federal states and KRITIS enterprises should work closer together when developing the exercise scenario. The general scenario should be oriented, as before, on the key points of the rough scenario laid out in the exercise framework. Participants should be given ample opportunity to become involved at an early stage.
- Scientific support for the exercise through educational and research facilities and the close cooperation of the Scientific Advisory Board on Civil Defense and Disaster Protection (Schutzkommission beim Bundesministerium des Innern) should be maintained.



Fig. 16: Detailed planning of the chronology of events in the exercise scenario.

Thematic workshops

Thematic workshops serve the sustainability objective of LÜKEX in that central issues continue to be addressed beyond the exercise cycle of LÜKEX 13. To achieve this, the series is generally open to all potentially interested parties and specialists directly affected by the exercise scenario– irrespective of exercise participation. Thematic workshops are therefore an ideal means of knowledge transfer and a more profound study of specific aspects of the exercise scenario, as well as facilitating networking and awareness-raising specialists and also trigger dialogues beyond the actual subject of the exercise. At the same time, thematic workshops also serve the generation of new impulses for the development of the LÜKEX 13 scenario.

4.3 Exercise Conduction

Participants found the scenario and exercise conduction to be generally realistic and appropriately managed during the core exercise days on 27 and 28 November 2013. The creation of a scenario in such detail was an exceptionally complex task, but it succeeded in simulating the required reality.

First meetings with participating staff units were held in the run-up to the exercise (**planning meeting**) as a reliable prelude to exercise conduction. It was here that measures were discussed and decisions made that not only affected the exercise situation, but the entire course of events during the exercise days. The **structure of the exercise control organisation**¹⁴ in central and local exercise control, as well as in SimCells, proved effective. It became apparent that exercise control's technical facilities were generally suitable for implementing the planned exercise at Federal, Länder and enterprise levels. The technical side of the exercise was trouble-free. IT applications used for the exercise remained stable during exercise conduction.

Fictional TV programmes in the form of newscasts were used to acquaint exercise participants with a realistic exercise situation. The overall assessment of **LÜKEX TV broadcasts** was positive. The professional style of the reports contributed considerably to participants' motivation, as well as toward simulating a realistic scenario. Unlike actual TV formats the focus of LÜKEX TV was on statements



Fig. 17: Workplace in the central exercise control in Bad Neuenahr-Ahrweiler

by key participants. **LÜKEX radio broadcasts**, as a current medium, were popular and participants were generally prepared to give interviews.

During the exercise, media work focussed on the **printed press**. Its amount and structure contributed toward a realistic atmosphere. Compared to previous exercises, LÜKEX 13 made increased use of social media as an instrument for crisis communication, as well as a platform for showing the public's reactions. Those taking part in the exercise were able to organise and actively practice their own media appearances via the same server used to host the media game.

14] or further explanation on setup and function of the exercise control organisation: cf.- Bundesamt für Bevölkerungsschutz und Katastrophenhilfe (pub.) (2011): Leitfaden für strategische Krisenmanagement-Übungen, Bonn, URL: http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/Broschueren_Flyer/Leitf_KM_Uebung.pdf [21.05.2014]

Recommendations for the conduction phase of the LÜKEX process

- › LÜKEX TV broadcasts should generally aim for a realistic, balanced mix of situation reports, statements and specific information.
- › Regarding to the printed press, it should be considered whether the number of articles can be reduced in favour of journalists' direct calls to the press office. The press reviews should be sent out more often.
- › Cooperation between the national media centre and local exercise controls should be enhanced.
- › Future exercises should look into how social media can be used to provide a more interactive communication between participants. They should also focus on the interaction between 'traditional' and social media. This should also allow one sector (e.g. social media) refer to content from the other sector (e.g. 'traditional media'), and vice versa.

The media simulation – an important instrument for testing crisis communication

To this end, a virtual media landscape is developed for exercise conduction, which is as similar as possible to the real German media landscape. During exercise conduction, central exercise control will set up a national media centre comprising media specialists and journalists. Specific media injects will be developed on the basis of the master script. Input will be news agency reports, reports and commentaries from regional and national newspapers, radio features, as well as questions by journalists and citizens. Owing to their increasing importance, social media also played a particularly important role in the LÜKEX 13 virtual media game. This included the simulation and use by exercise participants of different channels, such as social networks or microblogs.



Fig. 18: Screenshot of a LÜKEX TV broadcast with news anchor Thorsten Schröder commenting on the fictive health situation.

Actual media relations for LÜKEX 13

Exercise conduction for LÜKEX 13 was accompanied by well-received media relations. Following a joint press conference with the presidents of BBK, BVL, RKI and BfR, 19 representatives from news media (two agencies, two TV stations, two radio stations, three representatives from the specialised press, as well as 10 representatives from newspapers) had the opportunity to conduct individual interviews with the presidents. They were then offered a guided press tour of the central exercise control. Press representatives unable to participate were provided with information in advance. Information (including a photo gallery) could also be downloaded from the BBK homepage.



Fig. 19: Interview with BBK President Unger at the press conference in the exercise context.

Visitors' programme LÜKEX 13

To accommodate visitors' interest in crisis management exercises, a visitors' programme was held parallel to the LÜKEX 13 core exercise days (visitors' programme LÜKEX 13). National and international speakers held lectures on exercise topics and took part in discussions on various aspects linked with the exercise. Around 80 national and international visitors and speakers used the visitors' programme LÜKEX 13 to exchange information and learn about new aspects. The course of the exercise could also be followed from the perspective of central exercise control via live transmission at the Academy for Crisis Management Emergency Planning and Civil Protection, a BBK department.



Fig. 20: A glance into the transmission van during live broadcast for the exercise visitor's programme.



Fig. 21: The LÜKEX 13 visitor's programme consisted of lectures and presentations as well as discussion of topics with relevance to the exercise scenario.

4.4 Exercise Evaluation

The qualitative approach used to evaluate the exercise applied various methods and sources and proved overall expedient. It was shown that knowledge already acquired in the planning and preparation phase can be collated in a structured way and increasingly incorporated into exercise evaluation.

The inclusion of exercise observers during the exercise was beneficial for exercise evaluation, as these proved to be a source of information on the work of participating staff units. Improvements are required in the design and implementation of the online questionnaires used to gain information about the core exercise.

Recommendations for the evaluation phase of the LÜKEX 13 process

- › Evaluation methodology should be further developed in step with actual practice and communicated to ensure participants are aware of their respective roles in exercise evaluation at an early stage.
- › The online questionnaires must be more user-friendly.
- › The question should be addressed, whether and how science can be integrated to a greater extent into exercise evaluation.
- › In the future, there should be further significant consolidation of both initiatives started during the exercise on the one hand and information and knowledge gained in the context of the LÜKEX on the other hand in order to improve sustainability of an exercise cycle.

5.

Summary

The sixth nationwide crisis management exercise LÜKEX 13 was a success. The serious and dedicated involvement of Federal, Länder and private exercise participants should be particularly emphasized, as well as the stringent and constructive approach to pending problems.

The central objective of examining interdepartmental crisis management by federal government and federal states, as well as by enterprises affected in a situation involving an exceptional biological threat, has been achieved. Cooperation between health, health-related consumer protection and internal security sectors was generally good, as was the inclusion of international actors.

Potential for optimization was revealed in the field of resource management (e.g. laboratory capacities) and the allocation of tasks to Federal and federal state committees, as well as in the fields of internal and external communication. Legal and technical issues in connection with the reception and (deliberate) disposal of contaminated food require examination. In the aftermath of the exercise, the possible role of Poison Control Centers

in Federal and federal state crisis management remains to be examined. The clarification of the obligation to report toxic poisoning, the improved surveillance and the drafting of recommendations and guidelines for the management of exceptional biological threats were identified as important spheres of activity.

In respect of sustainability, subsequent activity should also focus on the systematic implementation of knowledge gained from the exercise, particularly the ensuing recommendations. Another requirement is the transfer of knowledge at conventions, as well as in further training schemes held in Federal and federal state educational institutions. To facilitate the development of interaction between authorities involved, (operative) exercises to overcome biological risk situations should also be held at sub-departmental level.

Some of the exercise findings are also suitable for more advanced professional guidelines or associated risk research. The political sphere must address the question to what extent and by what means the public should be informed of the risks arising from a biological threat.

6.

Appendix

A LIST OF ABBREVIATIONS

BBK	Federal Office of Civil Protection and Disaster Assistance
BfR	Federal Office for Risk Assessment
BMEL	Federal Ministry of Food and Agriculture
BMG	Federal Ministry of Health
BMI	Federal Ministry of the Interior
CI	Critical Infrastructures
DG Sanco	European Commission Directorate General for Health and Consumers
EHEC	Enterohaemorrhagic Escherichia coli
Europol	European Police Office
HUS	Haemolytic Uraemic Syndrome

EWRS	Early Warning Response System
FAQ	Frequently Asked Questions
FIS-VL	Technical Information System for Consumer Protection
GMLZ	German Joint Information and Situation Centre
IGV	International Health Regulations
LÜKEX	Interministerial and Interstate Crisis Management Exercises
RASFF	European Rapid Alert System for Food and Feed
SimCell	Simulation Cell
THW	Federal Agency for Technical Relief

B IMPRINT

Evaluation report LÜKEX 13

Exceptional Biological Threats

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