

Research Needs

Skiby, Jeffrey Edward; Bang-Berthelsen, Iben ; Knutsson, Rickard

Publication date:
2013

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):
Skiby, J. E., Bang-Berthelsen, I., & Knutsson, R. (2013). Research Needs. Uppsala, Sweden: National Veterinary Institute (SVA).

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

TASK 6.2

RESEARCH NEEDS





TASK 6.2

RESEARCH NEEDS

TASK LEADER

Jeffrey Skiby, Technical University of Denmark (DTU)

TASK PARTNERS

National Veterinary Institute (SVA)

University of LUND (ULUND)

Swedish Board of Agriculture (SJV)

AUTHORS OF THIS REPORT

Jeffrey Skiby (DTU), Iben Bang-Berthelsen (DTU),
Rickard Knutsson (SVA)

HOW TO REFER TO THIS DOCUMENT

Skiby, J., Bang-Berthelsen, I., Knutsson, R. (2013),
Research needs, ISBN number 978-91-87147-18-0

The AniBioThreat project was in 2010 awarded a grant by Directorate General Home Affairs under the programme “Prevention of and Fight Against Crime”. One issue stated in the call text in 2009 under this programme was animal bioterrorism threats. The focus of AniBioThreat is therefore based on threats to living animals, animal feed and food of animal origin. As part of this, it is foreseen that the project will enhance international cooperation and promote networking for bridging security with animal and public health.

The objectives are furthermore based upon some of the identified actions in the EU Chemical, Biological, Radiological and Nuclear (CBRN) Action Plan (2009), the recommendations of the CBRN Task Force Report (2009) and especially the work that took place in the Biosubgroup threats to animal, and food and feed for animals (2008), and the Biosubgroup detection and diagnosis (2008, June).

The project is divided into the following six work packages (WPs); WP1 the establishment of a network between law enforcement, forensic institutes, first responders, intelligence, veterinary institutes, public health agencies and universities, WP2 threat assessment, WP3 early warning/ detection, WP4 European Laboratory Response Network for animal bio-terrorism threats, WP5 detection and diagnostics and WP6 dissemination.

SPECIFIC OBJECTIVES OF THE WPS ARE AS FOLLOWS:

- To facilitate effective international cooperation, improve training and establish a network between law enforcement, forensic institutes, first responders, intelligence agencies, veterinary institutes, public health agencies and universities (WP1).
- To improve monitoring and threat assessments (WP2).
- To investigate early warning and rapid alert for animal disease outbreaks caused by criminal acts (WP3).
- To establish a European Laboratory Response Network approach to counter animal bioterrorism threats (WP4).
- To enhance research and development of detection methods of animal diseases, such as anthrax, botulism and viral diseases caused by criminal acts (WP5).
- To disseminate the outcome of the project to relevant stakeholders through exercises, workshops, publications, and academic courses and to strengthen research through existing EU projects (WP6).

The overall objective of AniBioThreat is to improve the EU's capacity to counter biological animal bioterrorism threats in terms of awareness, prevention and contingency.

CAPACITY AND CAPABILITY

The overall goal of the EU CBRN Action Plan is an all-hazards approach to reduce the threat of damage from CBRN incidents of accidental, natural or intentional origin, including acts of terrorism.

This deliverable has improved EU's capacity and capability to counter biological animal bioterrorism threats in terms of awareness, prevention and contingency in following areas:

- Education and training capacity and capability
- Research capability**
- Risk assessment capability
- Cooperation/interoperability capability**
- Surveillance and rapid alert capability
- Diagnostic and laboratory response network capacity and capability**
- Forensic awareness capability**
- Contingency planning capability
- Joint exercise capacity
- Readiness assessment and medical countermeasure capacity
- Communication and information sharing capability**
- Strategic, tactical and operational decision making capability

ABSTRACT

The aim of the AniBioThreat project is to improve the EU's capacity to counter biological animal bioterrorism threats in terms of awareness, prevention and contingency. As a pilot project, AniBioThreat has demonstrated that research projects (action grants) such as this are a viable way of achieving the goals set forth in the EU CBRN Action Plan. Task 6.2 focused on research needs. Through project surveys, peer-reviewed publications, and group activities, gaps in research, additional research needs, and areas where networks and training that should be developed have been identified. Through a dissemination conference, the project results and next steps will be communicated to the funding body and stakeholders so that they may take action and move towards an improved EU capacity to counter CBRN threats and events. AniBioThreat has produced a number of scientific peer-reviewed publications related to biopreparedness research. These publications are based on social and natural science reflecting the multidisciplinary needs related to biopreparedness. The EU funding concerning biopreparedness is at the moment fragmented at various Directorate Generals and it might be a better strategy to take a more long-term and comprehensive EU approach to develop an integrated funding program to allocate the resources to stimulate multidisciplinary R&D activities within biopreparedness.

DELIVERABLE ACCORDING TO GRANT AGREEMENT

Reports, manuscripts submitted for publication in peer-reviewed journals.

DESCRIPTION OF DELIVERABLE

This Deliverable is a report on the various actions taken to share information about current research activities in the animal biological threat or event arena, to identify additional research needs, and to disseminate research results.

CONTENTS

Abstract	4
Bridging Statement	6
Link to EU CBRN Action Plan	6
Other relevant Actions	6
Contribution towards overall objective of AniBioThreat	6
Task leader	6
Task partners	6
Authors of this report	6
Aim	6
Background	7
Methodology	7
Results and Discussion	11
Conclusion	13
Future Outlook and Recommendations	14
Acknowledgements	15
References	15
Appendix	17

BRIDGING STATEMENT

Each of the three disciplines involved in Ani-BioThreat (security, safety and research) rely or have relied on basic scientific study to develop the discipline, provide new methods or protocols, or identify analysis/interpretation skills. Through this task,

- current research has been published in a peer-reviewed journal,
- new and additional research ideas have been collected,
- a secure web portal was developed to share work efforts amongst the Consortium and
- a dissemination conference event was developed to disseminate the research achieved and gaps identified throughout the project.

LINK TO EU CBRN ACTION PLAN

H.63

The Member States together with the Commission should improve the aggregation and spread of research results both at EU level as well as at national level across the EU Member States. For unclassified materials, this should be done by way of organising conferences and setting up a dedicated research web-portal (for all of CBRN security) which would contain a summary of the relevant research projects and contact information where further details can be obtained, as well as opportunities for future research collaboration and work.

OTHER RELEVANT ACTIONS

None

CONTRIBUTION TOWARDS

OVERALL OBJECTIVE OF ANIBIOTHREAT

This task contributes to the overall objective of AniBioThreat by gathering useful knowledge, experiences and tools from major EU-projects within the 6th and 7th framework programs, such as BIOTRACER, Epizone, PlantFoodSec and with security projects/efforts within different member states (e.g. Samverkansområdet Farliga Ämnen (SOFÄ)). This will help to establish bridging mechanisms for facilitating raising awareness and dissemination activities.

TASK LEADER

Jeffrey Skiby, Technical University of Denmark (DTU)

TASK PARTNERS

- National Veterinary Institute (SVA)
- University of LUND (ULUND)
- Swedish Board of Agriculture (SJV)

AUTHORS OF THIS REPORT

- Jeffrey Skiby (DTU)
- Iben Bang-Berthelsen (DTU)
- Rickard Knutsson (SVA)

AIM

The aim of this task is to outline future research needs. To achieve this, participants will be surveyed, publish research papers, and present current research results along with recommendations for future research support through a dissemination conference.

BACKGROUND

As identified in the EU CBRN Action Plan (1) and recommended in the CBRN Task Force Report, there is a need to identify and specify relevant research needs within the CBRN area. Some aspects that need to be taken into account include good practices on dealing with security threats, the assessment of research and scientific publications against security aspects, the enhancement of synergies to avoid duplications, the improvement of the use of existing networks, and the encouragement of funding organisations to take security aspects into account. This task provides a strategy to strengthen future research.

METHODOLOGY

A dedicated and secure project research web portal was set up containing a summary of relevant information, including contact information, as well as work areas for research collaboration. Surveys and activities were conducted to identify future research needs. A publication policy was developed and implemented in the project in relation to security aspects. Scientific manuscripts were submitted to a peer-reviewed journal to disseminate research results obtained during the project. A pan-European dissemination conference has been arranged at the end of the project to spread research results at the EU level as well as at a national level across the EU member states.

Surveys

Throughout the project surveys were conducted to gauge the participants' opinions about different aspects of the project. Sometimes these surveys were also used to gather information from the participants. In this task, we used surveys to gather information about research needs from

the project participants at various points of the project duration. The surveys occurred at mid-point in the project and towards the end of the project. The surveys were conducted in relation to an evaluation on how the project was running (months 1–18, and months 16–29), as well as in relation to the SAMBIO 2013 Observers Programme (Task 6.3), and a specific Task 6.2 Research Needs survey.

The project evaluation surveys (months 1–18 and months 16–29) included one question each specifically regarding research needs, 'What do you think are the future research needs after the project is completed?' (Question #23 in months 1–18 survey), 'What opportunities for cooperation do you expect after AniBioThreat (e.g., new EU projects, etc.)?' (Question #12 in months 16–29 survey). These surveys were sent to all AniBioThreat participants. The survey from SAMBIO 2013 Observers Programme asked 'After participating in the SAMBIO 2013 Observers Programme, what areas of research or development are needed to improve the EU's capacity to counter biological threats or events in terms of awareness, prevention and contingency?' (Question #11 in the survey). This survey was sent to participants in the SAMBIO 2013 Observers Programme. Some of the respondents may not have been participants in the AniBioThreat project.

The Task 6.2 Research Needs survey focused on training and research needs after the AniBioThreat project ends. This survey was sent to all AniBioThreat participants after month 30. The Research Needs survey aimed to get a more general picture if more research or development was needed, and if so, what areas needed it, and how best to fund such needs.

All responses to the relevant questions in the surveys are available in the *Appendices 1–4*.



Figure 1. Research mini-symposium held in Budapest, Hungary.

Research Mini-Symposium

During the second annual meeting of the AniBioThreat project (April 2012, Budapest, Hungary), a research mini-symposium was held. This was a one-day event that provided an opportunity for the PhD students in the project to present their recent results and for the project participants to take part in a creative activity for developing research proposal call text.

Part of the research mini-symposium explored future research needs through a small-group activity.

After reading call-text from the EC or another funding agency, researchers may have asked themselves, 'Who wrote this?' The subject matter can be too broad, or the funding scheme not right, or the limit to project period too short. The project participants were challenged to write proposal call text for themselves.

In small groups, participants had the opportunity to write their 'dream call-for-proposal text' in the context of follow-on projects to AniBioThreat. What is the next step after AniBioThreat? In small groups, the participants identified what

topics were of interest, what type of projects would fit best, how long each project should be and what impact the project should have.

The small groups were provided with a template to complete, and afterwards, they returned to plenum to share some of the ideas.

A blank template form and the completed template forms can be found in *Appendix 5*.

SOFÄ – Workshop on the Deliberate Spread of Hazardous Substances

AniBioThreat is a consortium that merged from various EU projects and national networks, such as BIOTRACER, EPIZONE, Med-Vet-Net, Co-Vet-Lab and the national network Swedish Network Samverkansområdet Fraliga Ämnen (SOFÄ), and in English Cooperation Area Hazardous Substances. AniBioThreat has interacted with members of these projects and networks.

A workshop was held in January 2012 on the deliberate spread of hazardous substances in Uppsala, Sweden.

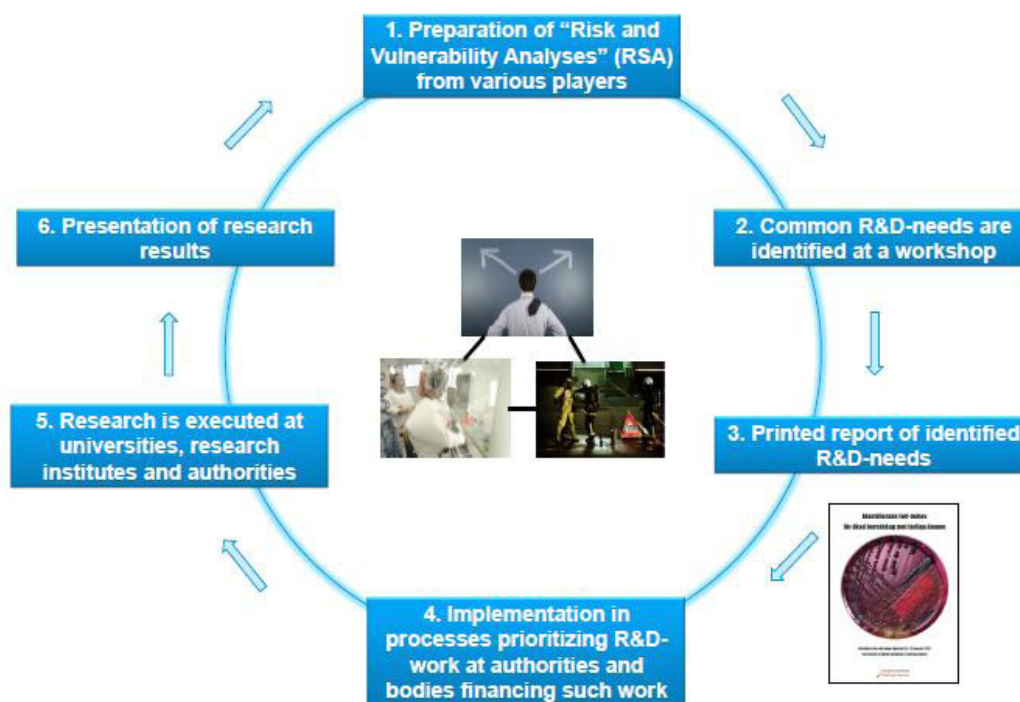


Figure 2. Illustrating the cyclic R&D process developed by SOFÄ (2), which includes six steps. Step no. 6 is linked to EU CBRN Action Plan, action H63.

In Sweden, certain authorities have a specific responsibility for societal emergency management, i.e., to reduce societal vulnerability and to deal with emergencies and disasters when they occur. These authorities are divided into groups based on identified cooperative needs, known as cooperation areas (CA).

The Cooperation Area Hazardous Substances, or SOFÄ, aims to ensure that society and the responsible authorities can mitigate risks, identify threats and respond to emergencies. SOFÄ is currently working on the following:

- Joint threat and risk assessment
- EU and other international cooperation
- Cooperation on research and development (R&D)
- Support to regional stakeholders

During 2011, SOFÄ developed a proposal for a cyclic R&D process to improve the cooperation between agencies, organizations and stakeholders (2). The first step was gathering information regarding agency risk and vulnerability. The second step was a workshop to identify joint R&D goals. The theme of the workshop was antagonistic CBRNE threats and risks. The results from the workshop are identified R&D needs and proposals for future R&D projects (3).

New R&D activities have been initiated and step six in the process is linked to Action H.63., see Figure 2.

AniBioThreat and Task 6.2 are clearly linked to this workshop through the CBRN Action Plan, action item H.63. Other EU projects linked to this workshop besides AniBioThreat were BIOTRACER and PRACTICE.

Published Articles

As with any project that has research involved, articles published in peer-reviewed journals is a way to disseminate research results, acknowledge research funding and support, develop networks of researchers, and identify next steps in research needs. AniBioThreat was no different in this regard.

However, experience with other research projects guided the project participants to seek to publish a supplement issue to a journal, meaning all articles in that issue would be written by members of the project Consortium and report on results, research gaps and trends identified within the project.

During the second annual meeting of AniBioThreat (April 2012, Budapest, Hungary), the 'Special Issue Working Group' was introduced and the journal *Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science* was announced as the journal selected for the supplement (as decided by the Steering Committee). Project participants were encouraged to develop articles related to their work in the project to 'tell the story of AniBioThreat'.

Working titles and abstracts were collected in the late summer of 2012. By October 2012, some 42 titles/abstracts were collected. By January 2013, 35 manuscripts were submitted to the journal to be reviewed for possible publication in a supplement issue. The published supplement includes 29 original articles and four introductory notes. The topics covered in the articles really do tell the story of AniBioThreat. Articles range from detection methods to crisis communications, and from scenario modelling to risk ranking, and from decision making to vaccine preparedness.

The articles in the supplement are organized like the EU CBRN Action Plan: Prevention, Preparedness, Detection and Actions Applicable to CBRN Prevention, Detection and Response.

Each article can also be related back to a specific action item from the EU CBRN Action Plan.

In addition to the supplement issue of *Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science*, other articles, book chapters, and theses were published based on work from AniBioThreat. Lists of published work can be found in each of the Task Deliverables.



AniBioThreat Dissemination Conference
Bridging Security, Safety and Research

Dissemination Conference

From the very start of AniBioThreat, it was clear that a dissemination conference at the end of the project that brought together project participants, stakeholders, European Commission stakeholders and Members of European Parliament would be one of the key opportunities to disseminate project results and knowledge, expand networks beyond project participants, and identify research gaps and propose development needs to improve the EU's capacity to counter biological animal bioterrorism threats in terms of awareness, prevention and contingency.

The BIO PREPAREDNESS EU: At a Crossroads AniBioThreat Dissemination Conference takes place on 11 September 2013, Brussels, Belgium.



Figure 3. More than 200 stakeholders have been invited to the At a Crossroads Dissemination Conference.

Those invited to the conference include participants in the project, Members of European Parliament who sit on relevant committees (Security and Defence; Environment, Public Health and Food Safety; and Agriculture and Rural Development), stakeholders from international organizations (WHO, INTERPOL, FAO, EFSA, OIE, etc.), stakeholders from national organizations (Ministry of Security and Justice, The Netherlands; Stockholm International Peace Research Institute, Danish Emergency Management Agency, etc.), Member State Experts on the DG Home Affairs CBRN panel (Bio and general CBRN members), and Director Generals from the organizations participating in the project.

The conference is organized to present the project AniBioThreat and how it came to be, present results from the project through three areas (Based in Science, Accent on Prevention, and Building a Collaborative Culture), identify the needs for future support and research gaps, and provide recommendations for next steps to Members of European Parliament, the European Commission representatives and stakeholders.

RESULTS AND DISCUSSION

The five areas of work identified under the Methodology section are analysed and interpreted in the following section.

Surveys

Initially, when developing this task, the thought behind research needs was basic research, meaning laboratory research. However, over the course of the project, the definition of research needs expanded to include development needs or gaps in development. For example, it was not until a table-top exercise that it was realized a network of legal representatives should be developed regarding biological threats and events. AniBioThreat has started this network.

There are also other development needs, one is the desire for support for additional exercises, at national, regional and international levels, and another is training that should be developed and implemented.

Regarding research and development gaps and needs, the surveys revealed a desire for funding, not just from the European Union or European Commission, but also more funds available in ‘matching’ funds from the EU to national or regional consortia.

Appendices 1–4 contain the survey results.

Research Mini-Symposium

The results and conclusions from the research mini-symposium parallel those from the surveys. The calls for proposals that AniBioThreat participants wanted to see from the European Commission ranged from pure research (laboratory) support to communication training and network development.



Figure 4. During the research mini-symposium research results and next steps were presented.

From the 11 responses, there was a strong call for work in the decision-making and communication areas as well as linking field detection activities with laboratory work/standards. All of these ideas had a European/cross border aspect as well.

Appendix 5 is the report from the event.

SOFÄ – Workshop on the Deliberate Spread of Hazardous Substances

The purpose of the SOFÄ workshop was to create a platform and a dialogue for user identified R&D needs. Discussions during day 1 of the workshop were organized in three scenario-based discussions. Day 2 of the workshop continued in the form of eight thematic sessions covering strategic decision-making, operative decision-making, information strategies, cooperation and interaction, threat and risk assessments, laboratory capacity, emergency medicine, and the economy.

The workshop generated a list of 88 different needs, some of which could be developed through R&D efforts. Two areas were recommended for future R&D investment (3):

- The capability to operate and perform life-saving activities also before the true nature of the CBRN agent has been identified, must be improved.
- The capability to interact with intelligence and to use intelligence information before and during a CBRN event, needs to be improved.

The two above-mentioned priority areas for R&D also demonstrate similar findings from AniBioThreat in that there are both laboratory research needs and non-laboratory development needs.

Published Articles

A perusal of the AniBioThreat supplement journal from the Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science exhibits page after page of results from the project, but also research gaps, development needs and next steps. They range from the goal to achieve rapid diagnostics of animal botulism to a common method of education to develop indicators that can form the basis for early warning.

Again, what was learned from developing this deliverable was that the need for additional research or work in this area is not limited to laboratory research, but also support for work in the development of education tools, detection methods, and communication guidelines.

Dissemination Conference

At the writing of this deliverable, the At a Crossroads Dissemination Conference has not occurred yet. Therefore, it is difficult to discuss a result. However, in developing the concept for the conference, issues regarding presenting the results from a project of this size have arisen.

AniBioThreat was a pilot project to demonstrate that projects such as this could provide a way forward to improve the capacity of the EU to counter CBRN threats and events in terms of awareness, prevention and contingency.

The best way to share the findings from a project such as AniBioThreat is to bring stakeholders together to respond to the findings, conclusions, and identified needs.

CONCLUSION

Work within this task has led to the following conclusions.



Figure 5. Working in diverse teams helped to bridge the gaps between the different disciplines in the project.

Surveys/Research Mini-Symposium/ SOFÄ – Workshop on the Deliberate Spread of Hazardous Substances/Published Articles

Based on the results from the surveys, research mini-symposium, the SOFÄ workshop, and the published articles, it can be concluded that additional work is needed, not just in laboratory research, but also in the development of education, training, and development of networks and communication tools.

Network and training – to further facilitate international cooperation, training needs have been identified and a need to establish networks between law enforcement, forensic institutes, first responders, intelligence services, veterinary institutes, public health agencies and universities has also been identified.

Threat Assessment – to further improve monitoring and threat assessments. A risk ranking of biological agents and toxins of security concern has been developed. Further investigation and validation should be conducted. Networks for vaccine issues should be developed.

Early Warning – further development of a European surveillance system for rapid alert for animal disease outbreaks is needed. Early warning, decision-making and crisis communication training programs are needed so that response to a threat or event that crosses borders does not receive an unbalanced response.

European Laboratory Response Network – further analysis regarding the Laboratory Biorisk Management Standard should be taken on by a European authority.

Detection and Diagnostics – the research and development of detection methods of animal diseases must be enhanced and new protocols and methods adopted as standard.

Dissemination – broader dissemination of outcomes from projects such as AniBioThreat needs to be supported by international funding. Additional exercises, training, education courses and workshops, as well as conferences can not only disseminate research results and experience, but also help to develop the networks needed when responding to an international event or threat. Dissemination and implementation of R&D activities are important tasks to improve response to and mitigate animal bioterrorism threats. In June 2013, it was discussed at the CBRN Advisory Group Meeting under the lead country initiative that H.63 shall be an action that will be continued and more work will be done on this action item.



Figure 6. Bringing together the different disciplines/organizations who respond to biological threats and events is important to improve the EU's capacity.

FUTURE OUTLOOK AND RECOMMENDATIONS:

The name of the task currently being discussed is Research Needs. As the project developed and evolved, Research Needs expanded to also include the identified research gaps, development needs and networking opportunities.

This task, along with the other tasks in the AniBioThreat project have highlighted what is lacking, what needs to be done next, and what should be done to better improve the EU's capacity to counter a biological threat or event.

The Directorate General for Home Affairs should consider developing additional calls for proposals to continue collaborative projects such as AniBioThreat that bring together security, safety and research organizations. Other Directorate Generals (such as Research and Innovation and SANCO) could also consider similar calls for proposals.

In particular, an international exercise event could provide not only the opportunity for an international exercise, but also develop the net-

working needed to strengthen the EU's capacity, and also create a consortium of universities to develop curricula to educate the next generation of CBRN preparedness experts.

Research (laboratory) projects are needed to further develop detection methods and standards for not only biological agents and toxins, but also for chemical, radiological and nuclear agents that could be of threat.

Funding of research and development projects can also be reviewed so that more partnerships or 'matching funding' opportunities could be exploited. Many individual nations or regional groups of countries have expertise, but lack the ability to fund such projects on their own. Matching funding from the EU could tip the balance and allow for greater cooperation and development of EU-level capacities. The EU shall also consider developing a long-term funding approach for biopreparedness research within the EU.

A list of published articles from this project can be found in Appendix 1 of Deliverable 1.2.

ACKNOWLEDGEMENTS

The framework of the EU-project AniBioThreat (Grant agreement: HOME2009/ISEC/AG/191) with support from the Prevention of and Fight against Crime Programme of the European Union European Commission – Directorate-General Home Affairs. This publication reflects the views only of the authors, and the European Commission cannot be held responsible for any use which may be made of the information contained therein.

REFERENCES

1. Council conclusions on strengthening chemical, biological, radiological and nuclear (CBRN) security in the European Union – an EU CBRN Action Plan – Adoption. 2009 (Last Updated). <http://register.consilium.europa.eu/pdf/en/09/st15/st15505-re01.en09.pdf>, Date of access: 5-9-2012.
2. SOFÄ, 2012a, Forskning och Utveckling inom Samverkansområdet Farliga ämnen: Möteskompendium FoU-workshop med temat avsiktlig spridning av farliga ämnen, Dnr SVA2012/1, ISBN 978-91-87147-00-5, Trycksaken i Uppsala, Sweden.
3. SOFÄ, 2012b, Identifierade FoU-behov för ökad beredskap mot farliga ämnen: Resultat från workshop i Uppsala 24-25 januari 2012 med temat avsiktlig spridning av farliga ämnen, Dnr SVA2012/573, ISBN 978-91-87147-01-2, Trycksaken i Uppsala, Sweden.

APPENDIX

Appendix 1:
Internal evaluation of AniBioThreat
months 1–18, research needs question

Appendix 2:
Internal evaluation of AniBioThreat
months 16–29, research needs question

Appendix 3:
SAMBIO 2013 Observers Programme evaluation,
research needs question

Appendix 4:
WP6 Research Survey, full report

Appendix 5:
Research mini-symposium report



Partner: SVA

Type: Evaluation

Reg. no.: ABT2012-PO-20

Project: HOME/2009/ISEC/AG/191

Date: 2012-04-05

Levels of classification:

EU Restricted

Internal use

Open/Unclassified


Choose classification level:

Internal Evaluation of AniBioThreat Months 1-18

Aim: This document provides a summary of a questionnaire sent out to the staff in AniBioThreat. The answers on the various questions are summarized in the document. The evaluation will be used to follow up and improve the work in AniBioThreat.

Open/Unclassified

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com

 With the financial support from the Prevention of and Fight against Crime Programme of the European Union
European Commission – Directorate – General Home Affairs



Classification level: Open/Unclassified

21. What opportunities for cooperation do you expect after AniBioThreat (e.g., new EU project, etc.)?

Response
-
- new EU projects
- better cooperation between the countries
- new EU projects
- collaboration with regard to trainings or workshops
* Further cooperation regarding the lab biorisk man standard (maybe audits at each others institutes etc)
* I think it would be a waste if we just end up with the results from this project and see there are more things that needs to be done and don't try to indentify them and move them forwards in some way.
AniBioThreat has put me in contact with several poeple from other institutes which make it easier to apply for EU projects.
Big opportunities I think I hope
bioinformatic help, and other collaboration making faster reserach and results
Except for the obvious opportunities brought about the networking I believe that the EU will invest in further research within the field as well as bringing bridging to new levels.
follow-up project would be welcomed
Hopefully new applications and project will be the outcome. A lot of knowledge and experience is built up so it would be a pitty if we could not continue.
Hopefully new EU project within the same field
Hopefully this can be followed up with new projects.
I am sure that the collaboration among the different scientific Institution will continue for the future. An EU project with these institutions is my hope.
I expect partners to be interested in prolonging the EU wide effort to impede and mitigate bioterrorism in the form of new projects.
I expect that there will be other projects coming out of ABT.
I expect to put into application the results of development of the project by training and experimental essays in real, collaborating with police office.
Also, the DG justice is too restrictive about the budget. More flexibility is really important.
I hope that it will be another EU-project within this area. This project is just a beginning when it comes to develop the crisis management in the biorisk sector.
I hope that the "laboratories net" created during AniBioThreat will continue in the future for new EU project
I hope the close contacts between institutes in the ABT network will lead to more collaboration and joint applications for EU projects
I see a lot of future funding opportunities after AniBio Threat especially in the areas concerning research and the bridging of safety, security and research.
I think there is good opportunities for a build-on-project after ABT since we have a lot of international contacts established. Would be great with a continuation or a

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com



Classification level: Open/Unclassified

new slightly modified EU-project afterwards. I think we've learnt a lot during this project and such knowledge should lead to a better formed start of the project. It feels a bit like RPS and such authorities think the project lacks a well defined deliverable and project plan (although this differs from task to task). For the next project we need to focus the resources towards a common goal.
Integration
It will be easier to find people to work together on international projects due to the network of AniBioThreat in which you have worked together
it's very important that the structure and the deliveries get continues - there is a need for a continuigies planning so that the project lives after it's ending
NA
new EU project
New EU project or other national or international projects. Cooperation with other EU reference labs.
New EU-projects!!!
new projects in the near futures
No idea
Similar works with more focus on chemical threats although it has started already. Faster communication and better cooperation regarding for example outbreaks or crises that spans over several countries.
the network of expert laboratories built in the project can be helpfull to answer to future international calls on closely related topics.
This will depend on ABT outcomes and delivery
It is essential to meet the aligned requirements in the EU action plan
Investment in security research is likely to remain high
We have established a good network for new applications.
With some of the partners

Conclusions: Many are interested in maintaining the consortium. The network is important.

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com



Classification level: Open/Unclassified

22. What do you think are the future training needs in AniBioThreat?

Response
- recognition of suspicious transactions
* In labs - maybe biosecurity or biorisk training in practice
* Risk assessment - because everybody needs to do that in one way or the other
1. ring trials between partners
2. face to "real life" exercises.
bio informatic training, and sharing knowledge of the different tasks
Biosecurity
Communication between different actors
Co-operation between different groups of professionals will always need to be trained.
Decisionmakers and their needs of training
Do not know.
exercises in agroterrorism is needed; the experience is that it takes forever to organise something like that, but only one big exercise is not enough
In basically all part of the project. Security, Safety and Research parts need education about the different fields as well as pure technology transfer.
It would be nice to have more workshops concerning safety, security and research where other participants than the researchers can attend. The workshops should therefore be more focus on introduction to different subjects.
joint decision making
More applicability in the field.
More training for first responders and also some kind of training for staff to increase the knowledge.
NA
no comments
No thoughts
Process
Reaction, response and communication in a sharp situation. not just plans and words.
The knowledge developed during the project should be disseminated in trainings for laboratories and police forces.
The workshop schedule seems appropriate
they are Ok and sufficient.
Training in what different types of exercises are done.
I think a follow-up social media training/workshop should be held.
training of the decision-makers based on AniBio result, position papers and achievements

Conclusions: Suspicious transactions, training for first responders, decision making, etc.

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com



Classification level: Open/Unclassified

23. What do you think are the future research needs after the project is completed?

Response
-
- rapid diagnostic tools for unusual agent-matrix-combinations
- research on agents - data bases with information on the specific agents - risk assessment with criteria to rate the "dangerousness" of agents
A project place which is easy to follow
After the project some topics should be studied in depth creating smaller entities focused in specific research area
Decision processes, risk management processes, detection methods and techniques, information sharing-methods, crisis communication especially social media
Development of new analytical methods, and new techniques will always be needed
Do not know.
Hard to tell at this moment, please ask me again after the Budapest meeting
Harmonization and validation of methods. Research on other pathogenic organisms.
I expect this area of research to continue to grow after ABT
I believe that there is still a large disparity between research based on 'information' and decisions based on 'intelligence' -
I expect research to move to different agents and to move towards real time detection and real time decision support
I have to think about that...
I think that during the Biotracer and AniBioThreat project we have developed different rapid methods for the detection of some microbiological risks (bacteria and viruses) in foods, water and in animal samples. Recently other EU project Plant and Food Biosecurity coordinated by Prof. Gullino started, this project deals with the biosecurity of the plants. Different EU alerts and outbreaks recently have been correlated with plant products as E.coli O104 in Germany, Listeria monocytogenes in melon in USA, Salmonella in seed in USA, Salmonella Napoli in Italian rucola in Norway and Sweden. Some of these outbreaks produced a very huge number of cases and demonstrated that we don't have sufficient scientific information on the microorganisms naturally present in vegetables. Sometimes we don't have methods able to detect this microorganism (S. Napoli present in Italian rucola is very difficult to recover from vegetables using standard methods; we don't know the persistence and behaviors of this organism on plant products and also we have very few information on the effect of the treatment that the plants have during the industrial treatments). Moreover a natural or voluntary contamination of these products (plant products) should cause a lot of food-borne cases or outbreaks. A collaboration between our project and Gullino project should be a core for defining a new project in bioterrorism that has to include also the classical infective food-borne agents (Salmonella, Listeria, E.coli, Campylobacter and Yersinia) and also the toxigenic bacteria (B.cereus, new subtypes of BoNT producing Clostridia). Since a strong

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com



AniBioThreat

Classification level: Open/Unclassified

correlation among clinical and foods or environmental isolates is requested by EU secondary legislation (Directive 2003/99/EC and subsequent amendments and integrations) could be interesting make attention also to molecular sub-typing techniques. In particular MultiLocus Variable number of tandem repeats Analysis (MLVA) and SNPs seem to represent a new way for rapid sub-typing of isolated strains. These techniques can be horizontally applied to the most common food-borne, water-borne and zoonotic pathogens.

I think there is a lot of research needs especially regarding development of new fast and reliable detection methods that can be used by the forensic, researchers and first responders. Another topic is the bridging of safety, security and research – how do we communicate with each other during an accident.

I think there will be a need for a terminology project.

I think a project on new detection methods for the most important pathogens/agents.

I think a further project on communication between different disciplines needs to be done, at least at a national level.

I think this question should be a topic for group discussions at the upcoming Annual Meet in Hungary. There are so many aspects that need to be considered.

Fundamental research/ applied research, new areas, "new" pathogens, new groups of professionals?

Investigating the easiest way to retrieve capacity to execute a bioterrorism attack and inventory of capability in relevant antagonists. the resilience of society, capability of joint decision making. vulnerability assessment of decision chains.

It depends on the outcome of the project. But I think more research is needed that has an application in biopreparedness and not just a theoretical application.

It is hard to predict since the final outcome is not finished.

NA

No comments.

not yet clear to me, we need some more time in the project to be able to say something about this.

That is a small question with a 2 big answer for this web based evaluation....

Trace recovery on animal crime-scenes. Criminal poisoning in animals. Training of the first responders especially veterinarians.

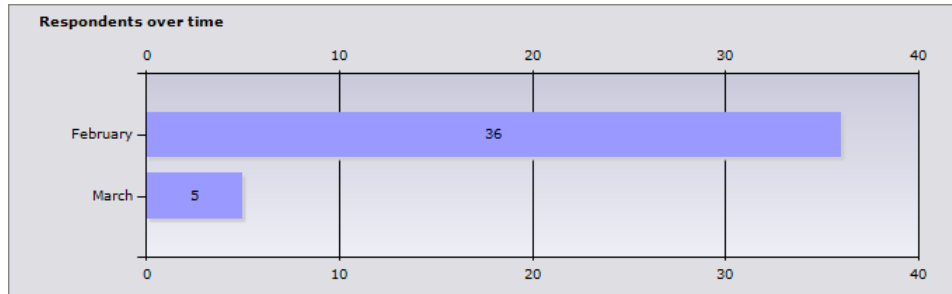
Will continue, standard methods not at the horizon, continuous innovation and improvements expected

Conclusions: Many different future research needs are identified. Needs to be discussed in Hungary.

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com



Classification level: Open/Unclassified




Recipients	Not reachable	Respondents	Response frequency
88	2	41	47.7%

Conclusions: The network is very valuable.

OVERALL CONCLUSIONS: The evaluation has identified actions for improvement. Integration is important for the next coming 18-months and to maintain the network and consortium.

Open/Unclassified

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com

 With the financial support from the Prevention of and Fight against Crime Programme of the European Union
European Commission – Directorate – General Home Affairs



Partner: SVA

Type: Evaluation

Reg. no.: ABT2013-PO-31

Project: HOME/2009/ISEC/AG/191

Date: 2013-04-19

Levels of classification:

EU Restricted

Internal use

Open/Unclassified

Choose classification level:

Internal Evaluation of AniBioThreat Months 16-29

Aim: This document provides a summary of a questionnaire sent out to the staff in AniBioThreat. The answers on the various questions are summarized in the document. The evaluation will be used to follow up and improve the work in AniBioThreat.

12. What opportunities for cooperation do you expect after AniBioThreat (e.g., new EU projects etc)?

?	Open/Unclassified
	not sure, bioterrorism is a narrow field, but expect to have better/more contacts with Dutch security service and Min. Agriculture about this item; will continue to have contacts with SVA etc. more than usual
	new collaborations and new projects, maybe also exchange for post-doc
	More EU projects.
	new eu projects
	Hopefully cooperation through new EU projects and/or Nordic projects. Also cooperation through exchange of master or PhD students, e.g. to try different equipment or methods.
	We hope absolutely that the collaborations with the different partners will follow in the future. A new EU project is a very nice hope, and an important opportunity for the EU to create a important network to contrast of bioterrorism acts in different fields (human, animal and environment).
	Existing network in AniBioThreat will hopefully live on in some way, especially in research tasks. But every ABT member has a personal responsibility to keep up the contacts and their network. Of course it would be good with cooperation in some way, with a chairman in each network.
	Hopefully new interreting Projects.

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com

With the financial support from the Prevention and Fight against Crime Programme of the European Union
European Commission – Directorate – General Home Affairs



Classification level: Open/Unclassified

WP 5.2 developed a lot of activities and I hope to collaborate with the partners for other projects.
new EU projects, COST action or a kind of network of excellence to maintain the already established connections among the stakeholders and for information exchange
The subject area will continue to be active - I expect to do more research in this area and, potentially, research in this area will spill over into other fields (e.g. food chain forensics and economically motivated events)
There should be possibilities for cooperation within "forensic microbiology", not necessarily with crime fighting ambitions but also for "civilian" biotracing...Maybe the experience in scenario development and exercises could be maintained by creating some kind of "mobility grant" where (trusted) persons from partner authorities assist in construction of (biothreat-) scenarios, planning of exercises (also small ones like Insider) and evaluation. This might be combined with the development of some kind of "scenario development support toolbox", for example a repository of case reports, manuals, simulation tools. Security would be an important part.
I hope there will be more projects started since this is such a good network. At the moment I experience that people are a little tired of the project and perhaps it needs to rest a little bit before starting new applications
Further projects like AniBioThreat.
I am very interested in continuation of the cooperation. So if there are any opportunities we need to fill in.
I believe that there will be several new EU proposals including some of the partners submitted in the next coming years.
I would like, but do not expect, to participate in the next generation of project that follows up on ABT's results. I think the Ambassadors should be those people that are most likely to coordinate the next generation of ABT project.
None, but it would be great if that would be the case.
Tighter collaborations, especially within Sweden, on specific analytical issues. Either as part of bigger projects, or driven by contacts made during the project.
-
new EU projects would be desirable (see EU Bio Patrol)
I hope that the wealth of knowledge and experience could be useful for future projects in animal health, food safety or antimicrobial resistances studies. Furthermore the human capital and relationships consolidated with this project are the real succeeded objective
Confidential
Every opportunity

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com




Classification level: Open/Unclassified

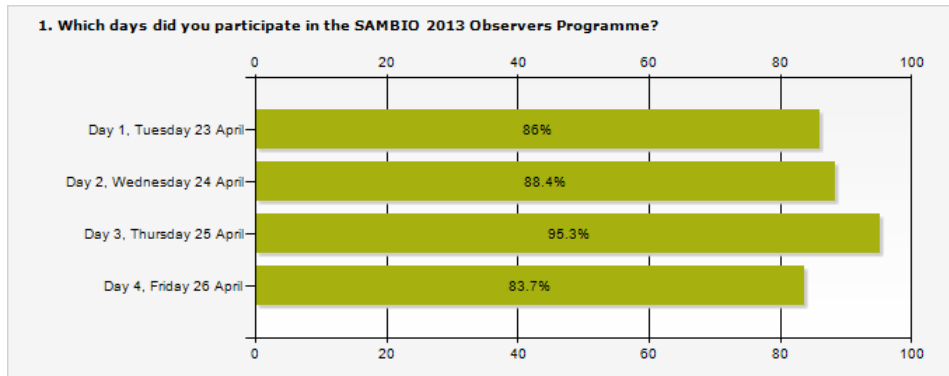
new EU project
Hope there will be upcoming projects
Would be nice with a new EU project, but if not, continue the networking which is so important. Maybe apply for funds (MSB) to perform training, excercises etc?

Open/Unclassified

AniBioThreat. Bridging security, safety and research. www.anibiothreat.com

 With the financial support from the Prevention of and Fight against Crime Programme of the European Union
European Commission – Directorate – General Home Affairs

SAMBIO 2013 Observers Programme



	Percentage	Count
Day 1, Tuesday 23 April	86%	37
Day 2, Wednesday 24 April	88.4%	38
Day 3, Thursday 25 April	95.3%	41
Day 4, Friday 26 April	83.7%	36
Respondents		43
No response		0

11. After participating in the SAMBIO 2013 Observers Programme, what areas of research or development are needed to improve the EU's capacity to counter biological threats or events in terms of awareness, prevention and contingency?

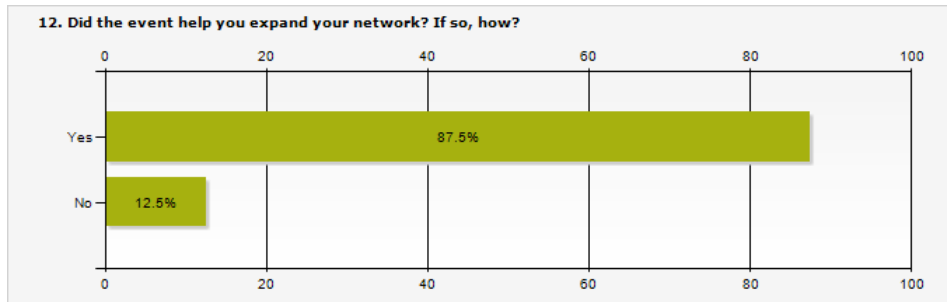
Response
To train Corporation in a country and between countries. To use Experts in different countries.
much more effort should be put into having animal health organizations work together with police and forensics to have an oiled machine that knows how to act during an attack. Still not familiar with each other is not a good starting point, you need to know each other in order to work side by side.
to have more communication between different countries especially that of field work and use their experience to improve our system in terms of disease control
Inter agency cooperation, visibility outwards
More preparatory work to identify legal problems (plus lifting central issues to the political level for clarification) could be useful for the central actors.
Still I think cooperation between different stakeholders is what needs to be improved.
Most important is to continue with this kind of work, to work together and introduce and inform people of different disciplines to each others work areas.
Communication and smooth co-operation among the different agencies could be the key point.
More exercises, preferable international, for other likely or representative scenarios.
I would like to learn more about the links between policy makers and strategists with responders and commanders
Not clear how lessons learned from exercise, observers programme will be used and disseminated
I think there is a great need for larger exercises in order to improve the collaboration and communication between the different institutions involved in a crisis.
Perhaps more European-wide exercises should be undertaken.
There is still a gap between law enforcement and other agencies. Perhaps there should be a joint training and more communication- even if a crime is not suspected.
Co operation. Witherspoon law enforcement agencies and science.
I am not able to give any feedback, as we were not involved.
Clearly, the collaboration between science and police and policy makers got a boost by this programme. I think that this should be done in a border-crossing exercise as well, this will make it even more complicated. raising awareness of the problems and how to deal with these difficult issues are very important. This training should be followed up on a larger scale to raise more awareness.
alarm way, communication.
I think that decontamination capacities (clothes or instruments used to face a bio terrorist attack) should be improved.
The programme has been very useful to disseminate the level of security and the opportunities we have to face a threat
Medvetenhet på alla nivåer. Viktigt att samverka och bygga nätverk som blir användbara i händelse av kris.
Interoperability across borders needs more work.
Development of common approaches to biosecurity across human/plant/animal pathogen sciences would be useful.
International response command and control systems may not be as well defined as would be liked - for example who takes the lead in the EC when a zoonotic impacts on human health following criminal actions.
Field sampling, microbial forensics related to Laboratory Response Networks (LRNs).
Better identification and detection methods
More standardisation of personnel protection used by different actors.
Study on risks with use of plant pathogens and how to improve protection
More crosssector interaction between law enforcement and various agency for crises management, human, animal and plant health. Realistic exercises that involve many agencies and higher levels of government, ministries

Support cross Nordic research in these areas and establish centres of excellence

Interactive cooperation

to address the new threats and the means of they could be delivered, to have procedures in place for sampling and analysis of unknown and exotic agents. To have sufficient scanning procedures in place. Enhancement of the collaboration between different authorities and different countries.

I still think the collaboration and networking between the different areas involved in a biological threat situation is very important and that the work that's started in ABT should in some way continue.



	Percentage	Count
Yes	87.5%	35
No	12.5%	5
	Respondents	40
	No response	3

Comments:

Just talking to people was a great experience.

Maybe a little
I talked to other observers that were normally not part of AniBioThreat, and that was good; I communicated after the meeting with some of them by e-mail on specific subjects.

I met a lot of new people also from disciplines where I don't have a large network beforehand. Good with the mixed groups during the exercises as we were "forced" to get mix with people from other disciplines and countries.

New communities, stakeholders
Always good to have a face and a name. Makes it easier to contact someone later.

It was nice to meet so many people from outside the Project.

Not really, but maybe it will in the future
More social events in the evenings could have improved network building.

I had a good opportunity to talk with some veterinary scientists and explore the role of risk assessment in their operations
Good to meet people working in related fields to your own. However little or no contact with exercise participants so limited.

I made new connections with Interpol and MSB.

Informal meetings
To think more on risk management
Contact outside the scientific research area e.g. the police and Interpol. Was very important to have them all present.

I met some people I already knew and was pleased to make contact with some colleagues I had lost contact with
Very useful mixture of scientific and incident management skills.

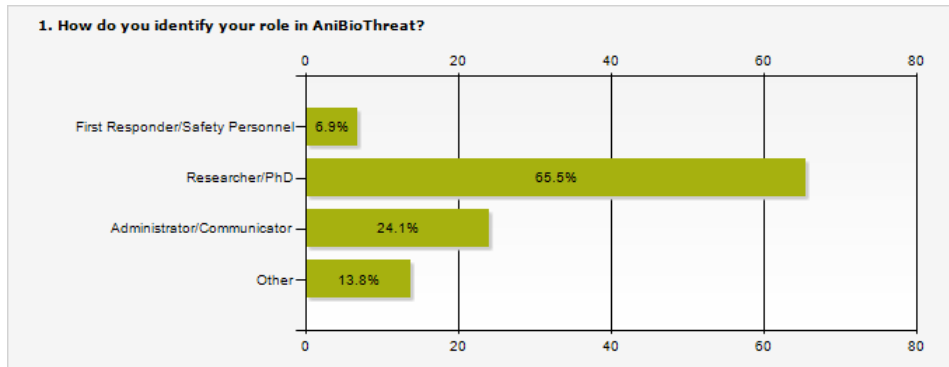
Contacts in animal health area
It helped me to understand the network better also in my home country related to bioterrorism. It was also useful to understand the capacity and capability of other authorities and professionals. Networking with other countries started already after the exercise.

There were a lot of "non ABT" people in the observers programme and in that case you had the opportunity to network and discuss. Good!

Recipients	Not reachable	Respondents	Response frequency
69	0	43	62.3%

WP6 Research Survey

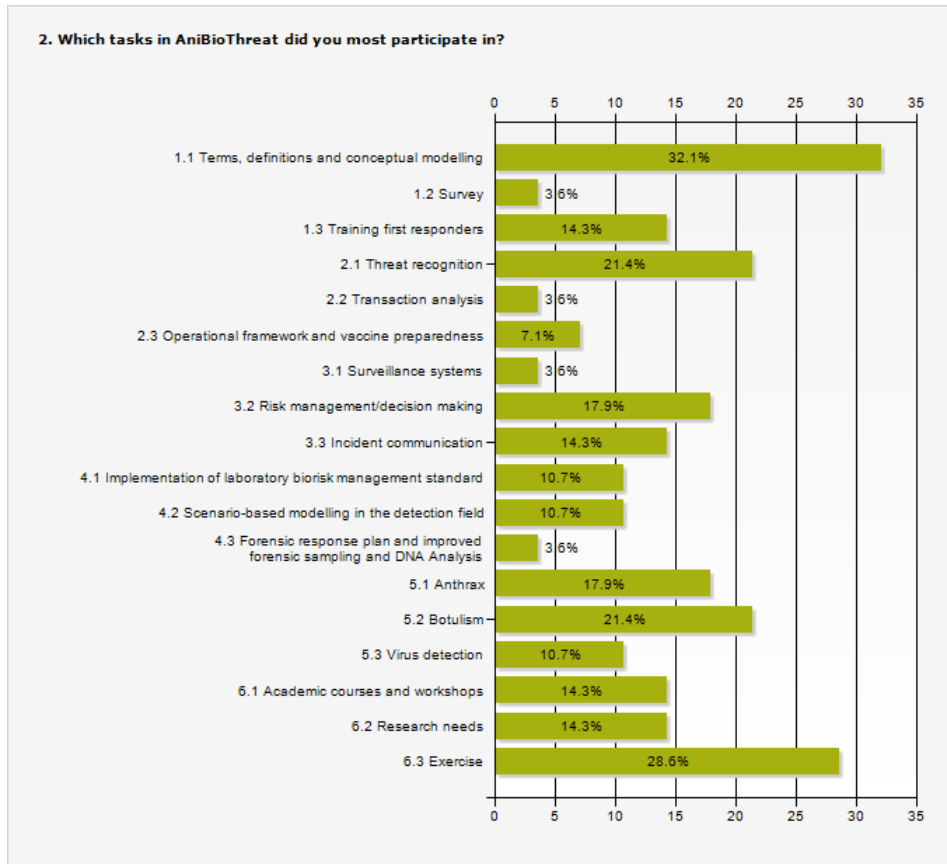
Standardrapport



	Percentage	Count
First Responder/Safety Personnel	6.9%	2
Researcher/PhD	65.5%	19
Administrator/Communicator	24.1%	7
Other	13.8%	4
Respondents		29
No response		0

If "Other", please specify:

Police
pathologist and microbiologist
Senior adviser

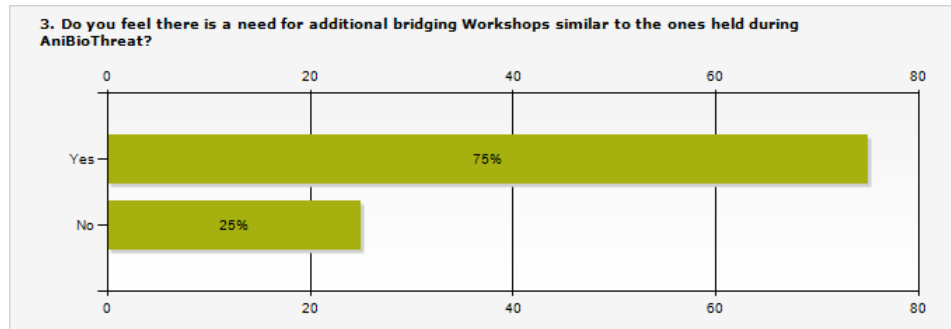


	Percentage	Count
1.1 Terms, definitions and conceptual modelling	32.1%	9
1.2 Survey	3.6%	1
1.3 Training first responders	14.3%	4
2.1 Threat recognition	21.4%	6
2.2 Transaction analysis	3.6%	1
2.3 Operational framework and vaccine preparedness	7.1%	2
3.1 Surveillance systems	3.6%	1
3.2 Risk management/decision making	17.9%	5
3.3 Incident communication	14.3%	4
4.1 Implementation of laboratory biorisk management standard	10.7%	3
4.2 Scenario-based modelling in the detection field	10.7%	3
4.3 Forensic response plan and improved forensic sampling and DNA Analysis	3.6%	1
5.1 Anthrax	17.9%	5
5.2 Botulism	21.4%	6
5.3 Virus detection	10.7%	3
6.1 Academic courses and workshops	14.3%	4
6.2 Research needs	14.3%	4
6.3 Exercise	28.6%	8
Respondents		28
No response		1

Comments:

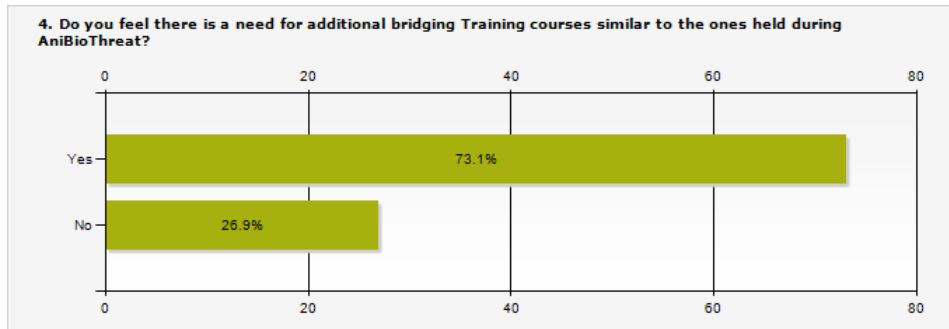
non of the above points. I only made the financial reports

The 'experience' of multidisciplinary activity is as important as any individual task



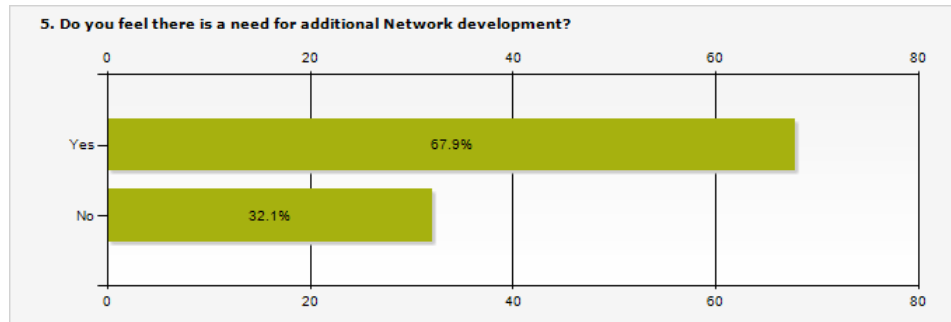
	Percentage	Count
Yes	75%	21
No	25%	7
	Respondents	28
	No response	1

If YES, what would the title be and who would participate?
Enhancement of interdisciplinary communication as workshop (regularly) to educate personnel of multiple disciplines
linking law enforcement/security with animal health
Continue the work within AniBioThreat. Try to arrange a workshop with security, safety, research and get also the disciplines from another MS except Sweden to participate.
On communication and decision making in cooperation.
There is a need for the legal advisor's network to meet and discuss different legal issues - workshop could be a good form for such work - and to find ways to cooperate with decision makers.
For botulism management is essential maintain an high level of cooperation among the European laboratories involved in the diagnosis. To this aim it is desirable to organize further workshops on this topic.
However, vets and epidemiologists share common interest with law enforcement people to mitigate the disease-related losses and protect life. There is an antagonism between their practice as the general disease countermeasures may destroy the evidences. It would be useful to work out a common sampling protocol and have a practice to co-operate shoulder-to-shoulder in an outbreak.
Both the disease prevention and the crime prevention.
A workshop for non-scientist on: What kind of biological agents may we find?
Information on the most relevant bacteria and viruses in connection to an outbreak (deliberate or non-deliberate).
Participants: first responders (police and fire brigade).
Responding to a Bio event or threat, participants: Police and Forensic people
Communication and social media: Communicators from Universities, first responders, research institutes, etc.
More "pure-breed" communication people from both police and other agencies
Enhancement of interdisciplinary communication
participants: all ABT participants for regular refreshment of the knowledge
CBRNE holistic workshop and Legal adviser support
Workshop about "train the trainer". It is important that the trainer have a good introduction for training multi-agency participants.



	Percentage	Count
Yes	73.1%	19
No	26.9%	7
	Respondents	26
	No response	3

If YES, what would the title be and who would participate?
periodically repetition of first responder training courses would make sense
Rapid detection tests for main biological threat agents
Education of first responders in B agents.
See above. Method for cooperation between legal advisors and decision makers might be a good topic for a course.
One training course might be not enough. Maybe an advanced course for custom and police officers could be useful.
Both the disease prevention and the crime prevention.
Crime scene investigation - Who should take the samples police, veterinarians, forensics or others? Participants: first responders (police, fire brigade, veterinarians, forensics).
First responder training to bio event. first responders and those knowledgeable about bio agents
Early Warning, what should we look for: any ABT participant
Police. other safety people and other who may be a first responder such as veterinarians
CBRN First responder course
Bio molecular techniques for pathogen genetic characterization.
Participants: epidemiologists, veterinary laboratory personnel
See above



	Percentage	Count
Yes	67.9%	19
No	32.1%	9
Respondents		28
No response		1

If YES, what would be the title of the network and who would be members?

Interactions and links between authorities and scientists: how to organize and maintain efficiency of our network.

Scientists and authorities

Network of communicators, decision makers and legal advisers.

See above.

Since animal botulism is not mandatory in EU, an European Reference Laboratory is not still considered by UE. We can maintain the network created during the project to harmonize the laboratory activities performed at EU level.

One of the main achievement of this project that representatives of very different disciplines can meet and share their experiences. Steering Committee members of AniBioThreat project should ensure that this network survive at last in a basic form after closing the project.

There will always be a need regarding new networks between the disease prevention and the crime prevention and others.

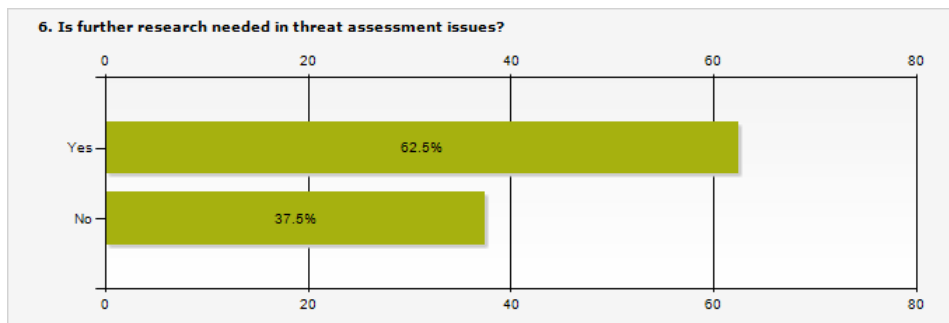
A database network where the countries upload information on outbreaks (strain ID, location, type of outbreak etc..). This can be used for multi-country outbreaks.

Communication network: all communication professionals from any ABT partner or stakeholder

Constitution of an European expert panel (at different levels) to harmonize the approach to notifiable disease or possible bio-terroristic attacks.

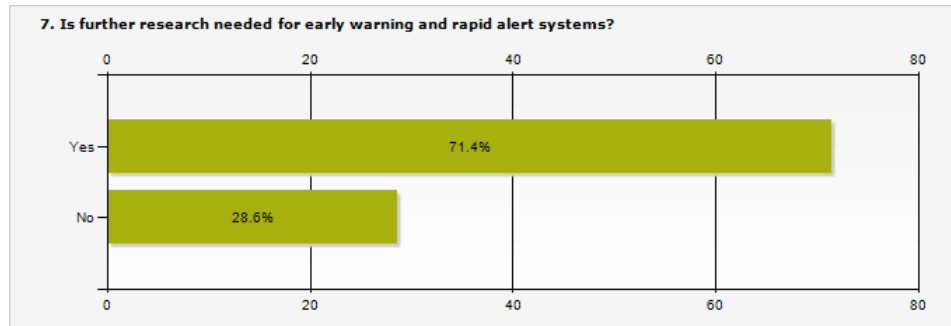
The project's strength is to create and develop networks within the area and focus - this has to continue and get implemented after the project - "The project is the rocket---the outcome is the moonlander

Perhaps trying to have more European partners and even non-European partners.



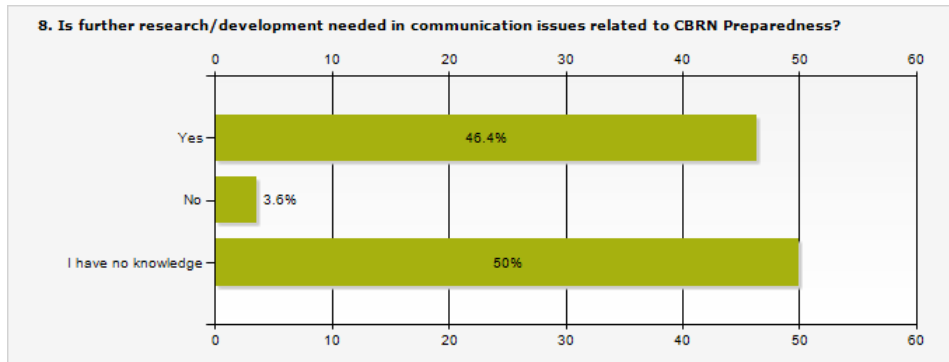
	Percentage	Count
Yes	62.5%	15
No	37.5%	9
Respondents		24
No response		5

If YES, what kind?
Risk ranking database should undergo further development to simplify application and presentation from excel database format to web-based database format
don't know
Assesment issues should be updated regularly based on uptodate research infos.
Do not know
Need a standard list of threats to animals and humans. Agreed across EU and others
further development in objective risk assessment for high pathogenic biological agents
Drug resistances, multiresistant pathogens detection
Developmentt of methods ad processes
Rapid threat assessment.



	Percentage	Count
Yes	71.4%	20
No	28.6%	8
Respondents		28
No response		1

If YES, what kind?
integration of information from security and animal health
Computer science for use in surveillance
The pilot course was very interesting, and could be given to a broader group, especially early warning officers and analysts.
To use and extent the existing RASFF (Rapid Alert System for Feed and Food)
We have to maintain the network created during the project. We need also to improve this network including others EU countries.
Early warning and rapid alert system should be updated regularly based on uptodate research infos. Regular praactice of reactivity of the system is also needed.
Machine based learning from unstructured data sets
Between the disease prevention and the crime prevention and others
Further implementation in the field.
There is a need for more research on how to collect and decipher all the information on the internet (twitter, Facebook etc..) to know what to react on and what not to.
I think more training in early warning.
First responders needs to be aware that they ARE first responders. How to preserve evidence and who to contact.
The AniBio needs a common 3D EW system and it ha to implement i training and exercises
3D-warning applied to biotreats



	Percentage	Count
Yes	46.4%	13
No	3.6%	1
I have no knowledge	50%	14
Respondents		28
No response		1

If YES, what kind and how should it be conducted?

don't know, but probably yes.

to train EU politicians on the real needs!!

Risk communication and early warning systems on internet

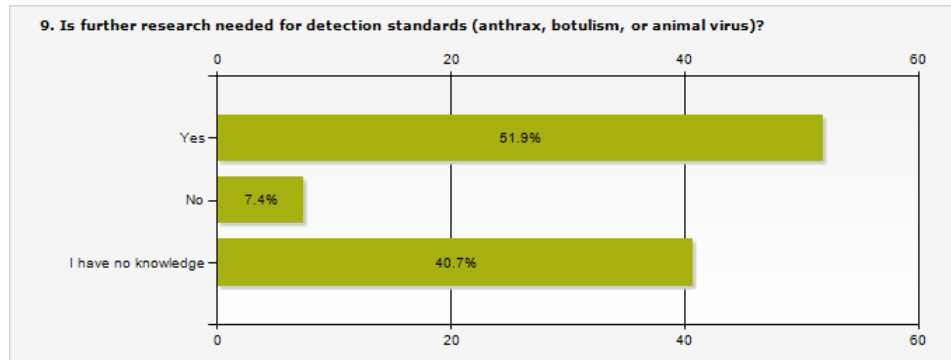
In this respect the use and feasibility of social media should be evaluated how to provide solid information to the public, which may overcome the negative effect of rumours. Officials, authorities usually react quite slowly in this respect by the time many misleading and false pieces of information are on the net causing panic or making hard the cooperation between public and authorities in crisis.

Between the disease prevention and the crime prevention and others

More training in communication between different players - first responders, scientist, politicians, journalists etc..

I think a network should be developed and further workshops/training should be done in communication issues when there is a crisis.

Monitoring of twitter and other social media to improve awareness about communication issues for strategic analysts.



	Percentage	Count
Yes	51.9%	14
No	7.4%	2
I have no knowledge	40.7%	11
Respondents		27
No response		2

If YES, what specific research is needed?

high throughput methods, validated methods for food and feed

don't know

To maintain up to date databases of pathogens sequences, to develop up to date diagnostic tests in order to be able to detect viruses which have evolved or new viruses

the 3 miorgs taken were just a starter

During the project we have developed several methods we can use as detection standard and that we can submit to European Committee for Normalization.

These standards should be updated regularly.

quantification of sensitivity and specificity

There is a need for more in-field detections e.g., lab-on-a-chip system that fast can give an indication on what type of pathogen it is.

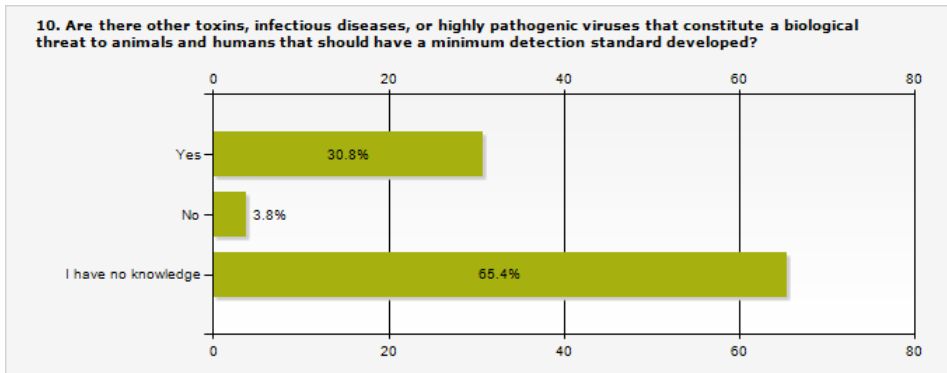
research into unbiased detection of pathogens

high throughput and detection in the field necessary

different matrices (food)

Botulism: European reference centre (or network) that can support the diagnostic and the therapeutic needs recognising specialized laboratories and constituting vaccines and antitoxin banks for emergencies

Sampling for microbial forensic purposes.



	Percentage	Count
Yes	30.8%	8
No	3.8%	1
I have no knowledge	65.4%	17
	Respondents	26
	No response	3

If YES, which ones?

don't know

Schmallenberg

where are the bacteria?? We should talk of bacterial toxins otherwise we open the book of 25.000 chemicals

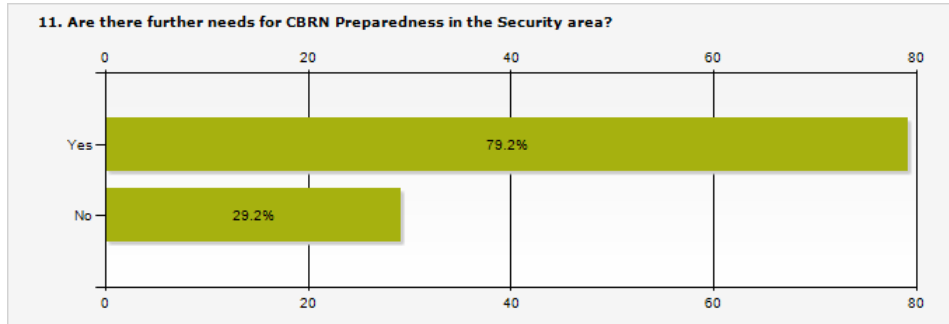
Myco- and phyto-toxins

During the project lifespan only certain selected agents were analysed, however, even the AniBiothreat "pathogen list" is longer. The whole pathogen list should be explored.

yersinia pestis, francisella tuleremia, brucella, burkholderia, lassa virus, ebola virus, monkey pox, and more from lists of biothreat agents

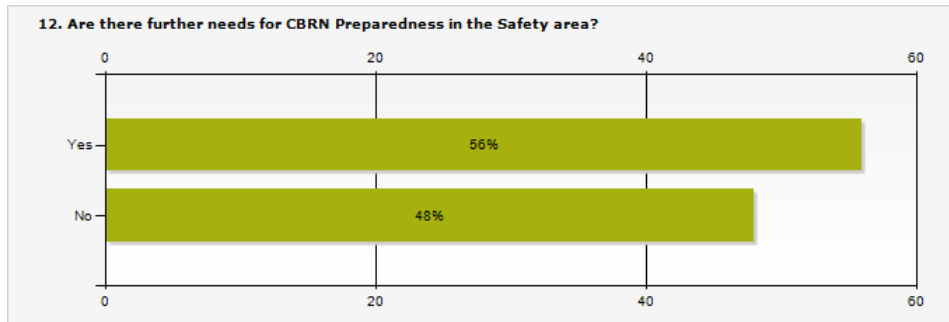
Plague, tularemia

Toxin:Ricin, Zoonotic diseases such as C. burnetti (Q-fever) but also consider other animal and plant pathogens.



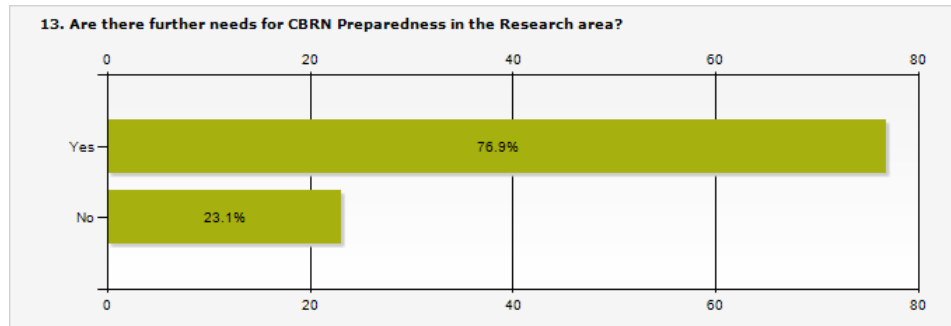
	Percentage	Count
Yes	79.2%	19
No	29.2%	7
	Respondents	24
	No response	5

- If YES, what are they?
- Vulnerability analysis in the production and food supply chain (e.g. by CARVER) should be intensified on EU- and worldwide international level
 - don't know
 - Education of personnel
 - I guess, but don't have any specific knowledge.
 - The cooperation between security sector and academia should be (further) strengthened!
 - More collaboration between the different players. This should be done by making exercises both national and international.
 - I think the security side more exercises, and possibly more training in CBRN events.
 - improvement of vulnerability assessment (e.g. CARVER)
 - Definitely lots of gaps identified and the work must continue
 - Rapid implementation of R&D results into exercise planing and security training.
 - Interoperability between various organizations.
 - The current prepaerdness applies to just a few. It needs to be spread.



	Percentage	Count
Yes	56%	14
No	48%	12
	Respondents	25
	No response	4

If YES, what are they?
don't know
depents on what issue to look at; a lot has been done on biosafety: the gaps have to be identified
Education of personnel
I guess, but don't have any specific knowledge.
In fact, many of the practises are not implemented. So further dissimination is necessary.
Do not know
I would like to see the LRN expanded.
Rapid implementation of R&D results into exercise planing and safety training. Interoperability between various organizations.
Probably the same as security but current status is better.



	Percentage	Count
Yes	76.9%	20
No	23.1%	6
	Respondents	26
	No response	3

If YES, what are they?

training courses for students/next generation of researchers to arise awareness

ABT has opened the book, the real work would start now!!

Sampling, sample preparation should be linked to forensics

Early warning knowledge

I guess, but don't have any specific knowledge.

Again, awareness of the role of the feed chain in the food chain.

The results of state-of-art research should be implemeneted into the CBRN preparedness. As research is an ongoing procedure, which surface newer and newer results, approaches, data, the implementation should also be a constant and parallel procedure.

Faster lab-on-chip detection systems

research into unbiased detection (as mentioned earlier)

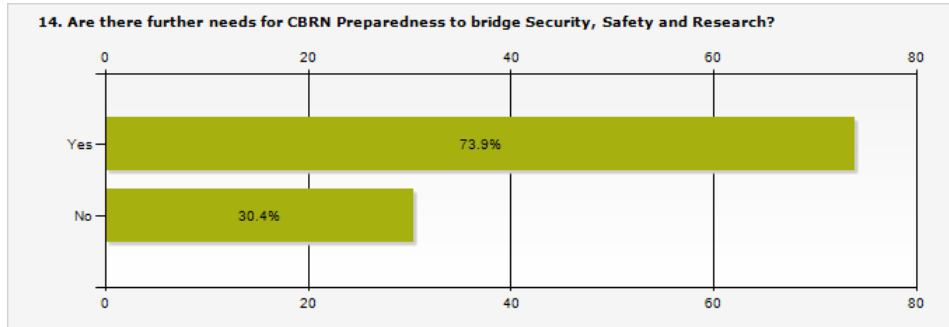
I think there needs to be new standards for detection, updated standards.

training courses for students working with CBRN agents (awareness raising)

Implementation of R&D activities into operational CBRN capabilities. Especially interoperability needs.

Further research in typing methods could be interesting.

How to recognize that the seemingly harmless thing I am working on can be used in a malicious act.



	Percentage	Count
Yes	73.9%	17
No	30.4%	7
	Respondents	23
	No response	6

If YES, what are they?

yes, development of platform that integrates information from security/law enforcement and animal health

I guess, but don't have any specific knowledge.

Again, awareness of the role of the feed chain in the food chain.

networking the stakeholders

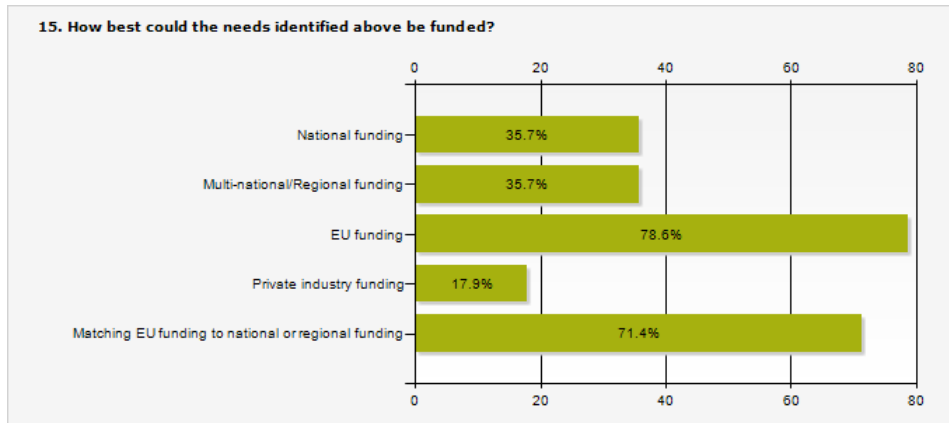
Exercises with focus on collaboration

I think a SAMBIO type exercise that is a multi-national exercise would be a good event.

Absolutley! We just experienced that the communication between law enforcemnet and a other company is poor. That since the police had no information about the salmonella outbreak. We still cant say that it is not a crime in that situation.

Baseline studies to get better background data. Multi-disciplin education, Adaptation of legal system to allow joint response for joint readiness.

Again at a larger scale.



	Percentage	Count
National funding	35.7%	10
Multi-national/Regional funding	35.7%	10
EU funding	78.6%	22
Private industry funding	17.9%	5
Matching EU funding to national or regional funding	71.4%	20
Respondents		28
No response		1

Comments:

I think a combination is probably best.

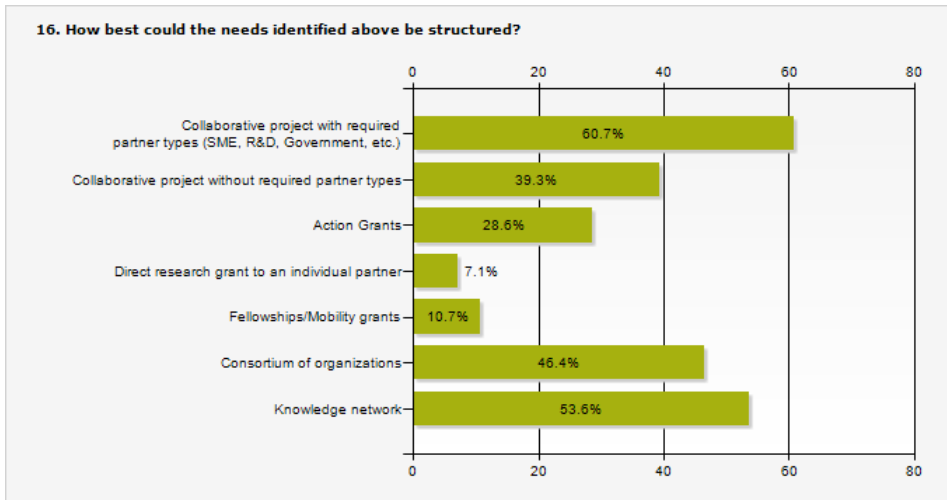
The problems exists in all countries so need for awareness and knowledge of threats etc are to a high degree common, while solutions to a certain extent remains national.

Possibly in collaboration with a US project

The funding should come from EU, regional and so on, since it is international questions /needs that should be addressed.

I think nations would be willing to supply matching funding to an EU grant. I think more funding is needed from the EC to support an exercise project, and fund networks for this type of crisis or event

The EU funding allows to have many public partners and coupled with a private industry funding could allow to include also private partners.



	Percentage	Count
Collaborative project with required partner types (SME, R&D, Government, etc.)	60.7%	17
Collaborative project without required partner types	39.3%	11
Action Grants	28.6%	8
Direct research grant to an individual partner	7.1%	2
Fellowships/Mobility grants	10.7%	3
Consortium of organizations	46.4%	13
Knowledge network	53.6%	15
Respondents		28
No response		1

Comments:

Preferably in a program with less administrative work load

I don't have extensive knowledge of the different structures, but collaboration and networks makes future contacts easier, both for research, preparedness and handling of incidents.

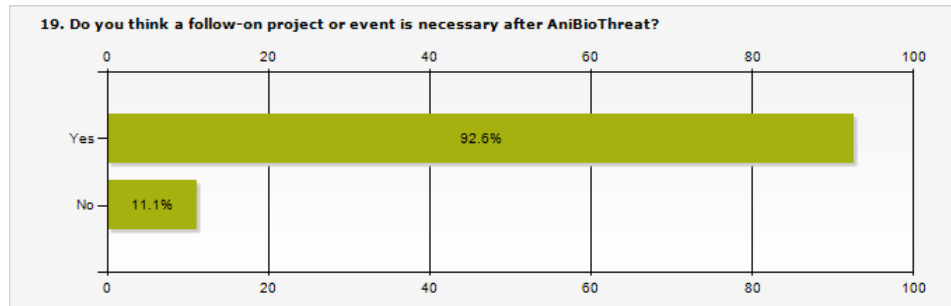
Simple structures without much demands on who or percentage of budget can go to what type of partner.

17. What research question or hypothesis did your work in AniBioThreat inspire in you?

Response
making an idea about better early warning into a practical tool (but science supported)
Development of new diagnostic technologies, simplified in order to be used directly by veterinarians or livestock farmers in the field to make very very quick diagnostic
Several, since head of an institute that has various parallel projects to ABT, The consequences of legal versus illegal import/handling of animals and food is an important issue with regard to upcoming diseases rews. monitoring their likeliness, just to name 1 ex.
m
Allowing rapid virus detection in field
Micobial forensics applied to genotyping methods
Collaboration with authorities, nationally and internationally
-
We need to improve our knowledge on genomics of BoNT-producing clostridia related to animal botulism. We also need to improve rapid methods for subtyping these organisms.
virus diagnosis in general and how law enforcement and animal and public health experts can work together in a bioterror case.
How to work with uncertain variables that can not be represented as chances? What is the relationship between information and intelligence? How do we separate what we know from what we think we know?
need for harmonization
How can social media help and hinder communication needs during a biological threat or event?
It is a long way to go before we have a equal standard in CBRN (E) training First Responders. But, it is possible!
The Politics of crisis management -- challenge is to develop capability to decisionmakers - and also the Stimsonreport on Intelligence needs for 21th century
These approaches gave us at red tread/guidelines and av neutral languages to discuss and develop
Research that combines experts from various disciplines.

18. How can the current outputs (reports, deliverables, methods) from AniBioThreat be used? What are the next steps?

Response
publications
further development is necessary in the Risk ranking database (should undergo further development to simplify application and presentation from excel database format to web-based database format and extend range of agents)
don't know
methods developed in anibiothreat project and results have to be published to inform scientific persons, and the diagnostic tests have to be validated to be commercialized to enhance diagnostics
should be discussed at the Rome and Brussels meeting
Enhance cooperation between public and law enforcement authorities. Education
See answers 3-5.
AnoBioThreat should disseminate results not only by published papers, deliverables, methods and the next dissemination conference at Brussel, but also organizing at national or regional lever workshops, meeting.
This deliverables cannot be handed as research results, but should be provided to police, decision makers.
Perhaps it would also be very fruitful if based on these deliverables further trainings or courses were organised for the stakeholders.
Work more in the areas that we identified lack knowledge.
The outputs of AniBio Threat together with the dissemination conference will provide EU will a list of topics where more research is needed.
optimization of existing methodology
The EC needs to take the Deliverables and use them as a basis for new calls for proposals.
Detection methods results needs to be reviewed for new standards.
Network of vet labs needs to be strengthened.
For me, the next step would be to present a First Responder training that fits both law enforcement and civilian companys.
publications, further collaborative projects
dissemination in specialized workshops, training courses etc.
Transferring to agencies and stakeholders and implemented in their daily organization and processes
Hopefully a new projects that can continue the work that has not been finished in AniBioThreat
There is lots of ideas and knowledge gained. All this should be put together and put to use. The risk now is that it stays as nice reports and only in the minds of the participants.



	Percentage	Count
Yes	92.6%	25
No	11.1%	3
	Respondents	27
	No response	2

If YES, describe it?

Sustainability of all results should be supported by a following project

yes, time was too short for real progress; there are too many loose ends now.

network with private industry for large scale manufacturing of the diagnostic tests developed in order to eradicate the diseases that we worked on in AniBioThreat

But NOT with all institutes/partners, since in my eyes some have not sufficiently supported or have up to today not understood the real mission

There is still much to do in the bridging process

We built a strong network and developed a lot of tools which could be beneficial to use in future projects

This was just the beginning!

I think many of the conclusions would benefit from continued support from a project organisation. Relying on line organisations to implement the results can often mean a lack of resources.

It is important to build further on the networks.

AniBioThreat focused on some problems related to biological threats. About botulism we need to improve the researches developed during the project.

AniBioThreat was a good initiative, but even because of the complexity of project several tasks and duties (see above exploring the risk analysis of the potential pathogens) are only partly explored on account of the lack of time. Follow-on project could promote this activity and all deliverables and project results can be deeper implemented into the stakeholders. All these activities can result in that law enforcement and academia people may cooperate more smoothly in a real crisis situation, which could be an untold advantage.

Very similar but with a very different funding process - perhaps in collaboration with a parallel US project

Further implementation activities.

Several smaller more specific spin-off projects should come out of AniBio Threat

I think a new project that funds the dissemination of project results, national ambassadors, and a new exercise is needed.

A exercise again in one year to see if we still have the same level of preparedness and knowledge.

To actually do the things that we have worked for- training First responders in different counties so that all countries within EU have the same method of working with CBRN agents. That would ensure that securing evidence in a contaminated environment and method of work is the same. That is needed so that law enforcement can fight these crimes. Animalbioterrorism is not bound by borders and therefore we need to be able to work together across borders.

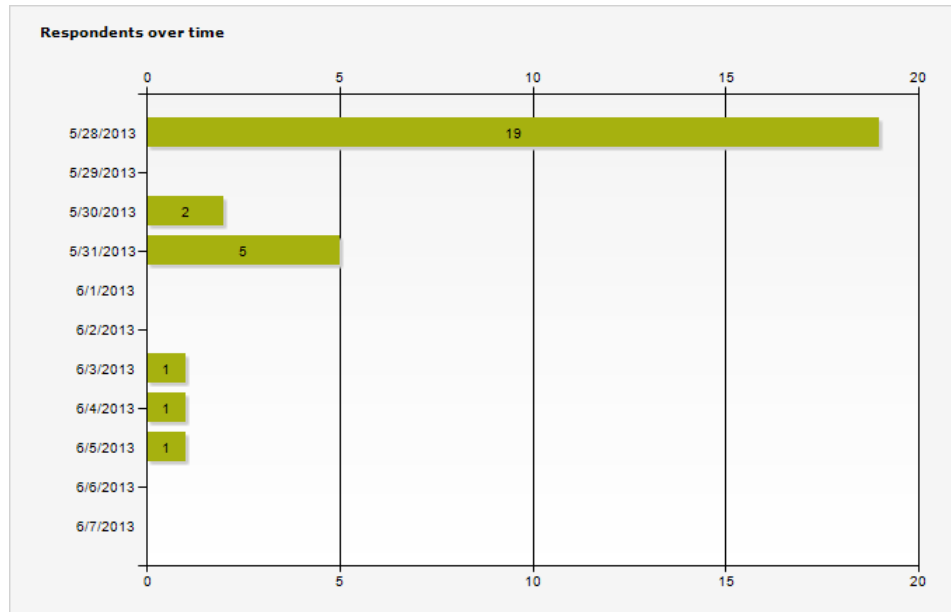
It's easier to develop in a project -faster and without bureaucracy

More focus on interoperability and visualization tools.

The answer is in question 20. Work must go on.

20. How can we not 'lose' what was achieved during AniBioThreat?

Response
-continue working together in networks
-application for further projects with interested partners of ABT
by follow-up projects
Dissemination of the work done is the key
Stay in contact, support the network and start further half-year meetings circulating between interested and potential partners (the inviting institute would organise the meeting, the guests would care for their own costs). BfR has already offered this kind of support to SVA-Sweden to at least start with a bilateral partnership and, hopefully, more partners to join in
Formalize the network and apply for new fundings.
Continue the collaboration between partners involved in ABT
Keep up the network. Start new projects.
See above, implementation is key!
By not doing as in q19.
We need to maintain the network created during the project.
The best would be a follow-on project, but at least a basic network should be maintained.
Work to follow on
Keep the networks and continue the work
By yearly regular meetings. Setting up collaborative research projects.
By keeping the network alive after AniBio Threat and through collaboration between the different partners in various future projects.
The EC should have a library of deliverables from these types of projects, and also to offer a next generation of project, a follow-on project to the Consortium.
Meet again, exercises.
further collaborative projects with partners from ABT; dissemination of results achieved in ABT
by means of new research project that involve the same consortium
Keep up the networks and the spirit and initiatives from participants. Make demands to the EU to quality secure the output
follow-on project & implementation
People start to work in other areas after AniBioThreat



Recipients	Not reachable	Respondents	Response frequency
65	1	29	45.3%

Quota	Confirmed	Not confirmed	Screened out



Research Mini-Symposium

Research Mini-Symposium Activity—Developing call text

The aim of the AniBioThreat project is to build bridges between disciplines, competencies and countries in order to be prepared for an animal bioterrorism threat or incident.

As identified in the EU CBRN Action Plan and recommended in the CBRN Task Force Report, there is a need to identify and specify relevant research needs within the CBRN area. Some aspects that need to be taken into account include good practices on dealing with security threats, the assessment of research and scientific publications against security aspects, the enhancement of synergies to avoid duplications, the improvement of the use of existing networks, and the encouragement of funding organizations to take security aspects into account.

Having PhD students as part of a project such as AniBioThreat provides a unique opportunity to develop the 'ultimate bridging tool'. As the participating PhD students are the next generation of experts in the field of CBRN and biopreparedness, they will bring an original perspective to the field, one that takes into account the safety, security and research issues, and one that crosses disciplines, competencies and countries.

Part of the Research Mini-Symposium explored future research needs through a small-group activity.

After reading call-text from the EC or another funding agency, have you ever asked yourself, 'Who wrote this?' The subject matter can be too broad, or the funding scheme not right, or the limit to project period ridiculous. Wouldn't it be better if you could write the call-text yourself?

In small groups, participants had the opportunity to write their 'dream call-for-proposal text' in the context of follow-on projects to AniBioThreat. What is the next step after AniBioThreat?

In small groups, the participants identified what topics were of interest, what type of projects would fit best, how long each project should be and what impact the project should have.

The small groups were provided with a template to complete, and afterwards, they returned to plenum to share some of the ideas.

The next two pages are a blank template. The pages following are the work of the various small groups.



Research Mini-Symposium

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

PROBLEM STATEMENT: What is the current problem to be solved?

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

- _____ % SME (industry)
- _____ % R&D (university/institute)
- _____ % Government (agency, law enforcement, etc.)
- _____ % Other (NGO, consumer groups, etc.)
- Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT



Research Mini-Symposium
GROUP 1

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery**
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Detection systems, sampling (including negative samples), forensics, evaluation of results
Scenario (as bridging tool), risk assessment, inter-operability, international—3rd countries
Networking

PROBLEM STATEMENT: What is the current problem to be solved?

How/when do you know it is safe after an outbreak/incident?
How do you communicate it?

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)**
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

_____ % SME (industry)
_____ % R&D (university/institute)
_____ % Government (agency, law enforcement, etc.)
_____ % Other (NGO, consumer groups, etc.)
Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT



Research Mini-Symposium

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response**
- C) CBRN Recovery**
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

The role of wildlife with international spread of infectious diseases.
Disease, ecology, international spreading, interoperability

PROBLEM STATEMENT: What is the current problem to be solved?

It is relatively easy to spread infected wildlife (e.g., insects, rats) or invertebrate diseases among wildlife. History has shown that when one disease has been established among wildlife it is very difficult to get rid of it. It is also very difficult to study this process experimentally.

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)**
- D) Other _____



Research Mini-Symposium

GROUP 2

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

- _____ % SME (industry)
 - _____ % R&D (university/institute)
 - _____ % Government (agency, law enforcement, etc.)
 - _____ % Other (NGO, consumer groups, etc.)
- Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT

Early warning system
Communication strategy
Methodological approaches



Research Mini-Symposium
GROUP 3

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response**
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Key factors for identifying intentional spread of biological agents
Combining field and laboratory findings.

PROBLEM STATEMENT: What is the current problem to be solved?

Intentional introductions of disease agents are rare and may be difficult to distinguish from natural occurrences.
Field operators tasked with monitoring too many factors lose their edge over time when the true events are rare.
Existing information pathways such as the CVO network do not take raised threat levels and suspected intent into account.

EC RELATION:

- A) DG Home Affairs**
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)**
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant**
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

____ 10_% SME (industry)
____ 20_% R&D (university/institute)
____ 70_% Government (agency, law enforcement, etc.)
_____% Other (NGO, consumer groups, etc.)
Geographical Distribution (region, INCO countries, etc.)

European Union

EXPECTED OUTPUT/IMPACT

Early detection capabilities for intentional introduction
Means of securing potential evidence
Improved communication between member states, between public/veterinary health agencies and intelligence communities



Research Mini-Symposium

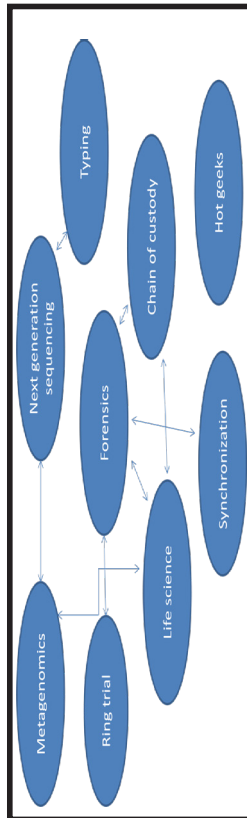
GROUP 4

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response**
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords



PROBLEM STATEMENT: What is the current problem to be solved?

How can sample handling / genomic / metagenomic approaches be synchronized and be used by forensics and life science institutes taking chain of custody into account?

EC RELATION:

- A) DG Home Affairs**
- B) DG Research and Innovation**
- C) DG Sanco (Health and Consumer)
- D) Other FP7 SEC?



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence**
- C) Network of Excellence**
- D) Collaborative Project**
- E) Other _____

CONSORTIUM STRUCTURE:

- _____ % SME (industry)
 - 50 % R&D (university/institute)
 - 50 % Government (agency, law enforcement, etc.)
 - _____ % Other (NGO, consumer groups, etc.)
- Geographical Distribution (region, INCO countries, etc.)

European Union

EXPECTED OUTPUT/IMPACT

Increased preparedness and better synchronization between forensic and life science institutes, regarding bioterrorism-related detection and identification, taking chain of custody into account.



Research Mini-Symposium
GROUP 5

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Integrated prevention of emerging, incidental, accidental and intentional events/outbreaks
Keywords: Detection, surveillance, communication, crisis management, awareness

PROBLEM STATEMENT: What is the current problem to be solved?

There is evidence of inconsistent and variable border controls and inspection of food and feed due to global markets within the EU and neighboring countries, which has consequences for consumer safety and the stable economy.

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

20 % SME (industry) transport food/feed
70 % R&D (university/institute)
5 % Government (agency, law enforcement, etc.)
5 % Other (NGO, consumer groups, etc.)
Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT

Increase awareness and safety
Consistency
Minimize risks
Multi-agency cooperation



Research Mini-Symposium

GROUP 6

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

CBRN prevention and response

Area of work = 'fork to plate'

Title =

Keywords: Natural contamination, outbreak, bioterrorism, food/feed, human, animal, epidemiology, customer, communication, media

PROBLEM STATEMENT: What is the current problem to be solved?

Natural/deliberate outbreak, in human and animal of pathogens, specifically new agents
 Source of contamination —trading/identify
 Communication information release
 Training for scientist

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

___ 20___ % SME (industry)
 ___ 40___ % R&D (university/institute)
 ___ 40___ % Government (agency, law enforcement, etc.)
 ___ % Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

Europe / INCO countries

EXPECTED OUTPUT/IMPACT

Databank of methods to detect pathogen agents
 Low-cost methods
 Technical output that could be used in the field
 Increased understanding of the risk at the social level



Research Mini-Symposium
GROUP 7

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other Leadership/Management in CBRN field

SUBTOPIC: Area of Work/Title/Keywords

Communicative leadership

Developing relation between decision-makers, experts and communicators; increasing professional awareness, clarifying roles, etc. through training and education programmes.

PROBLEM STATEMENT: What is the current problem to be solved?

Bridging the current gaps between decision-makers, experts and communicators; between actors involved as well as within actors involved—nationally as well as border-crossing.

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

10 % SME (industry)
20 % R&D (university/institute)
60 % Government (agency, law enforcement, etc.)
10 % Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT

Output: An improved crisis management within and between authorities, making a common situational awareness.

Impact: A better, faster and safer communication with citizens affected in a CBRN crisis/incident situation.



Research Mini-Symposium

GROUP 8

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Cross border and interoperability
 focus on B-agent
 connected to cross border project
 cooperation
 Coordination
 education and training
 evaluation and implementation
 = lessons learned

PROBLEM STATEMENT: What is the current problem to be solved?

Complex
 Standardization
 Information sharing
 Terminology
 Scenario

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other DG Enterprise _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

_____ % SME (industry)
 10 % R&D (university/institute)
 50 % Government (agency, law enforcement, etc.)
 40 % Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT

Common structures, organization
 A spider in the organization
 Standardization, quality assurance
 Increased knowledge-sharing, understanding, learning



Research Mini-Symposium
GROUP 9

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response**
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Engaging new stakeholder groups into the CBRN process and CBRN research

PROBLEM STATEMENT: What is the current problem to be solved?

Current interactions between CBRN specialists and other stakeholder groups are unstructured, difficult to measure, and inefficient. Communications include elements of uncertainty, variability and secrecy which combine to give loss of trust and a reluctance of many to engage or participate in the CBRN process. Research is required to improve the engagement process, advance sharing and comprehension, and increase trust in the CBRN process and CBRN research.

EC RELATION:

- A) DG Home Affairs**
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project**
- E) Other _____

CONSORTIUM STRUCTURE:

_____ % SME (industry)
 33 % R&D (university/institute)
 33 % Government (agency, law enforcement, etc.)
 33 % Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

All regions and cultures (no boundaries)

EXPECTED OUTPUT/IMPACT

The project should demonstrate initiatives to communicate and share CBRN research and so improve trust and well-being experienced by coherent stakeholder groups.
 Improved dialogue of engagement should lead to participation and efficient progression of CBRN initiatives.



Research Mini-Symposium

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response**
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Animals in food chain, emerging diseases, zoonotic diseases, screening, diagnostic methods
 First responders vs. laboratories
 Vaccine availability

PROBLEM STATEMENT: What is the current problem to be solved?

Need for quick, reliable tests on farm level
 Need for improved communication and transfer of knowledge and information between labs and first responders
 Need for harmonization within the EU

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)**
- D) Other _____



Research Mini-Symposium

GROUP 10

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

___10___% SME (industry)
 ___40___% R&D (university/institute)
 ___50___% Government (agency, law enforcement, etc.)
 ___ ___% Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

EU, non-EU countries

EXPECTED OUTPUT/IMPACT

Limit the impact of infection on the food chain and consumers.



Research Mini-Symposium
GROUP 11

ACTIVITY: Increasing Security of Citizens

TOPIC:

- A) CBRN Prevention
- B) CBRN Response
- C) CBRN Recovery
- D) Other _____

SUBTOPIC: Area of Work/Title/Keywords

Development of field detection tools for virological . . .
 Keywords: molecular, detection, screening, multiplex
 Metaviramic development
 Keywords: evolution, biological properties, functional genomics, pathogenesis, comparative virulence

PROBLEM STATEMENT: What is the current problem to be solved?

In order to be able to respond to an outbreak of intentional or unintentional nature, we propose to develop methods for typing and evolutionary screening, as well as monitoring the viral population. The gained insights into the viral populations will then be extrapolated into field detection equipment and methods.

EC RELATION:

- A) DG Home Affairs
- B) DG Research and Innovation
- C) DG Sanco (Health and Consumer)
- D) Other _____



Research Mini-Symposium

FUNDING SCHEME:

- A) Action Grant
- B) Centre of Excellence
- C) Network of Excellence
- D) Collaborative Project
- E) Other _____

CONSORTIUM STRUCTURE:

___ 30 ___ % SME (industry)
 ___ 70 ___ % R&D (university/institute)
 ___ % Government (agency, law enforcement, etc.)
 ___ % Other (NGO, consumer groups, etc.)
 Geographical Distribution (region, INCO countries, etc.)

EXPECTED OUTPUT/IMPACT

Community will have fast and accurate detection methods in the field.
 Training and dissemination of diagnostic methods.
 Dissemination of genomic information through shared networks.

TITLE

**“Bio-preparedness measures
concerning prevention, detection
and response to animal
bioterrorism threats”**

ACRONYM

AniBioThreat

TOTAL COST

€7.003.992,26

FINANCES

**With the financial support from
the Prevention of and Fight against Crime
Programme of the European Union.
European Commission –
Directorate-General Home Affairs.**



GRANT AGREEMENT NR

HOME/2009/ISEC/AG/191

START DATE OF THE PROJECT

1 October 2010

DURATION

3 years

COORDINATOR

**National Veterinary Institute
SVA, Sweden**

BRIDGING SECURITY, SAFETY AND RESEARCH

The aim of the project AniBioThreat is to improve the EU's capacity to counter biological animal bioterrorism threats in terms of awareness, prevention and contingency.

The project will contribute to create a safer and more secure world. To succeed, we need to carry on a borderless dialogue.

AniBioThreat builds bridges across boundaries dividing countries, competencies, and disciplines.

In our work, we strive to be Collaborative, Learning, Efficient, and Alert, to be a Robust organization. Keep it CLEAR!

