

Improving the European response to biological toxin incidents

A multi-pronged approach



EU VISION

Background to the Project

The threat of biotoxin incidents in which pathogens are released accidentally or intentionally into the community is increasing. Human error, and poorly designed processes increase the risk of accidental laboratory leaks, while the relative ease with which some biotoxins can be produced makes their use in bioterrorist incidents a real possibility.

To protect civilians and responders, Europe requires an effective crisis management capacity that considers the idiosyncrasies of biotoxins. Solutions that provide interoperability across services and EU nation states and a recognised body of biotoxin expertise are urgently required.

Expected Outcomes



Biotoxin incident response

Requirements for a European biotoxin incident response capacity



Rapid Field Diagnostics

Portable devices for rapid on-site field diagnostics and biotoxin detection



Forensic Guidelines

Harmonised guidelines for forensic analysis of biotoxins



Safety Recommendations

Evidence-based recommendations for personal protective equipment and decontamination measures for biotoxins



Unified Approaches

Standardised approaches, interoperability and knowledge exchange

How this will be achieved



Biotoxin Task Force

Creation of a pan-European multidisciplinary task force of biotoxin experts



Enhanced Response Capacity

Revised CONOPs, new training materials, and specification of a biotoxin response capacity



Secure Sampling Procedures

Development of Secure and Legally Valid Sampling Procedures for Enhanced Provenance and Analytical Accuracy



PPE & Decon Testing

Laboratory and field evaluations of personal protective equipment and decontamination measures



Portable Breath & Biotoxin Detection

New portable devices for breath sampling, and biotoxin field detection and analytics



Biomarkers & Susceptibility

New methods for identifying human biomarkers of biotoxin intoxication and individual differences in susceptibility



Biothreat Risk Tools

New tools for biothreat risk assessment



Regulatory Roadmap

Creation of a regulatory and standardisation roadmap



COLLABORATOR ZONE

Partners

EMBRACE, coordinated by Telesto Technologies, has a consortium of 18 partners. From first responder organisations to medical and forensic laboratories, high-tech biolabs to cutting edge technologies, underpinned by standards and policy-facing organisations, EMBRACE provides comprehensive array of crisis management, medical, scientific and technological expertise.

Keep in touch



<https://embracebiotoxhub.eu>



EMBRACE Biotox Hub



@embracebiotoxhub.bsky.social



@EmbraceBiotoxHub

Project coordinator: Dimitrios Drakoulis (dimitris@telesto.gr)