Technology Foresight in the drugs field

Mapping and assessing the future challenges and new opportunities for innovative response created by the introduction of new technologies in the drugs area

Project goals

The main aim of the project is to undertake a comprehensive technology foresight study on how technological developments and innovations may impact the drugs field over the next decade. Technology foresight is a strategic process that predicts future technological changes and their impacts, helping organisations and policymakers proactively address potential risks and harness new opportunities within the drugs field.

The research focuses on a medium-term perspective and leverages systematic methodology to assess transformative technologies across five key areas:

Drug Production and Supply

This field explores technologies and innovations that influence how (illegal) psychoactive substances are manufactured, formulated, packaged, trafficked, and distributed. It includes developments that affect the modus operandi, trafficking routes, or behaviours of organised crime groups, as well as the efficiency, traceability, safety, and customization of drug production processes.

Interventions to Address Drug Market Supply

This field explores technologies and innovations that influence how (illegal) psychoactive substances are manufactured, formulated, packaged, trafficked, and distributed. It includes developments that affect the modus operandi, trafficking routes, or behaviours of organised crime groups, as well as the efficiency, traceability, safety, and customization of drug production processes.

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Drug Consumption Patterns and Trends

This field examines technologies that affect the demand side of drug markets, such as the ways in which psychoactive substances are consumed or administered, the types of substances preferred by different populations, and the methods by which they are acquired by people who use drugs.

Interventions in Prevention, Treatment, and Harm Reduction

This field covers technologies designed to reduce the health and social harms associated with drug use. It includes innovations in harm reduction, such as overdose detection, personalized treatment delivery, and tools that support safer consumption practices and recovery. It also includes innovations in prevention, aimed at discouraging the onset of drug use or reducing demand, and in treatment for drug-dependent populations.

Surveillance Capacity for Rapid Detection

This field addresses technologies that enhance the ability to detect or forecast new psychoactive substances, outbreaks, or shifts in drug-related risks at the population level. It includes systems for early warning, data integration, and rapid response to emerging drug threats.

This project will deliver prioritised technology assessments, accompanied by actionable recommendations for policymaking, research, and practice in Europe. The project will support EUDA in setting informed priorities and shaping its research agenda and strengthen EUDA's capacity to conduct future technology foresight activities.

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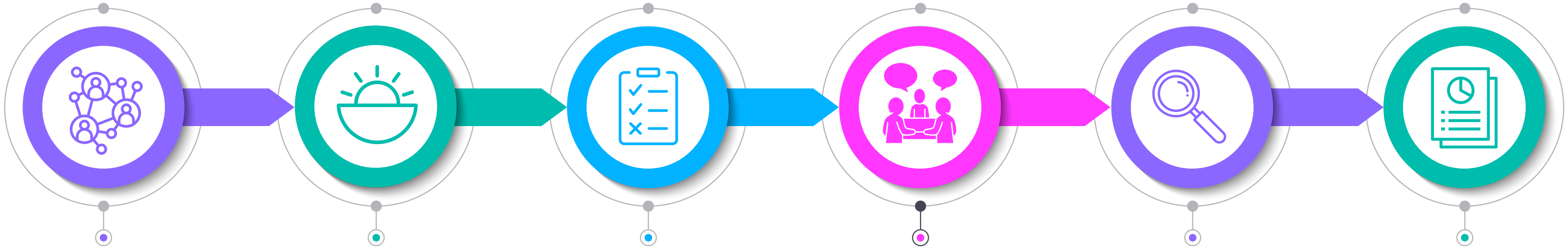
Activities

The project follows a structured, iterative sequence to build from broad scoping to targeted insights and replicable tools.



INITIAL FOUNDATION PHASE

STAKEHOLDER MAPPING AND SCOPING

Identifying relevant stakeholder profiles and sources of information to inform the technology foresight process, including mapping of experts from research, private sector, civil society, and European institutions with technology and drugs expertise.

BROAD SIGNAL IDENTIFICATION

HORIZON SCANNING

Systematically mapping emerging technologies and innovations across the five drugs areas using the Foresight Strategy Cockpit (FSC) tool, to identify relevant trends and signals.

PRIORITISATION VIA ITERATIVE EXPERT FEEDBACK

DELPHI SURVEY

Assessing and prioritising key technology developments through two rounds of anonymous expert feedback, focusing on impact and ‘time to mainstream’ metrics to identify high-potential technologies for deeper analysis.

COLLABORATIVE ANALYSIS

TECHNOLOGY FORESIGHT WORKSHOP

Conducting a workshop gathering 50 experts across the five thematic areas to analyse shortlisted technologies using foresight techniques to understand consequences, enablers, barriers, and synergies.

IN-DEPTH EXPLORATION

DEEP DIVE CASE STUDIES

Developing a couple of case studies investigating specific relevant technology areas for the EUDA identified through the workshops, providing detailed analysis of implementation pathways and implications.

FINAL SYNTHESIS

CONCEPTUAL FRAMEWORK DEVELOPMENT

Creating a replicable methodology framework and supporting tools (including low-tech alternatives) to enable EUDA to conduct future technology foresight exercises independently, with accompanying training materials and guidance.

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Outcomes

- Scoping report containing stakeholder mapping and horizon scanning methodology
- Technology assessment matrix with impact and maturity ratings for identified innovations
- One workshop analysing technology implications across each drugs area
- Final research study report synthesising all findings and policy implications
- One or two detailed technology deep dive case studies with implementation roadmaps
- Replicable conceptual framework and supporting tools for future technology foresight exercises