PROJECT INFORMATION

Project name: NARCOSIS (Non-tArgeted foRensic multidisCiplinary platfOrm for inveStigatIon of drug-related fatalitieS)
Funding Program: Horizon Europe
Funded under: Civil Security for Society
Call: HORIZON-CL3-2023-FCT-01-02: A harmonized European forensics approach on drugs analysis (Option A)
Duration: 36 months
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Coordinated by: Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile (ENEA)
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OBJECTIVES

NARCOSIS aims at developing a fast, robust and reliable non-targeted multidisciplinary approach to harmonise investigations in Drug Related Deaths and drug-related operations by means of an up-to-date and updateable diagnostic platform.

CONNECT WITH US

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NARCOSIS

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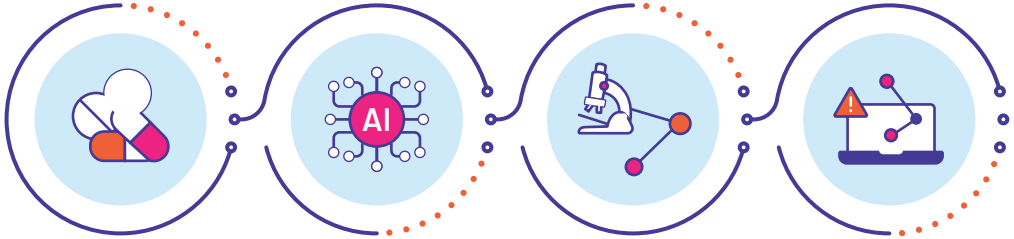

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ABOUT NARCOSIS

The rapidly evolving **New Psychoactive Substance (NPS) market** and the growing number of substances requiring monitoring have challenged early warning efforts in recent years. With the exponential rise in illicit drug classes, the focus has shifted from searching substances to **preliminarily identifying** them as illicit, particularly when dealing with new drugs. Modern instruments with updated libraries now enable rapid drug identification.

Traditional forensic analysis methods are less effective for screening either the parent drugs or their metabolites due to limited structural data and a lack of commercial reference materials.

NARCOSIS will offer a fast, robust, and reliable multidisciplinary platform to harmonize forensic investigations with up-to-date diagnostic tools.

KEY FEATURES OF THE NARCOSIS PROJECT

- **ANALYSIS:** the selected **orthogonal sensors/instruments** (Raman/SERS, IR, HSI, HRMS, NMR) will be adapted to be used with the NARCOSIS platform to deliver a better and more effective analysis capabilities of NPSs and their metabolites (on-site and laboratory analysis).

- **PROCESSING:** create an **AI-assisted spectra management** and **integration toolkit for analytical measurements** (sensor agnostic and comparable between different instruments) to rapidly detect, assess and respond to NPSs (support for the EU Early Warning System)

- **SHARING:** build a **comparable** (cross-instrument) and **shareable** (cross-organisation) **reference spectra** (meta-spectra) **database** for faster detection and identification of drugs of abuse.

NARCOSIS CONSORTIUM

The NARCOSIS project brings together a diverse consortium of **17 Partners and 1 Affiliated Entity across Europe** to develop a cutting-edge approach to harmonise investigations in DRDs and drug-related operations by means of an up-to-date and updateable diagnostic platform.

EXPECTED IMPACTS

- Modern means of analysis of drugs aimed at facilitating the cross-matching of seized drugs to labs and the establishment of links between cases, including by **developing protocols to quickly exchange information on new substances**.

- Improved and uniform EU-wide approach for the **collection of evidence regarding illicit drug-related overdoses** that would allow for choosing adequate responses in countering drug-related problems.

- **Improved collection and availability of forensic evidence** that could be used in court by the authorities.

- Enhanced perception of citizens in public and private spaces that **Europe is an area of freedom, justice and security**.

- Tackle **forensic challenges related to illicit drugs-related overdoses**.

Development of a non-targeted multidisciplinary approach to harmonise investigations in in Drug-Related Deaths and other Drug-Related Operations by means by means of an up-to-date and updateable diagnostic platform (fast, robust and reliable).