

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

Start date: 1 November 2024

End date: 31 October 2027

Total cost: € 4 635 295,00 (EU contribution € 4 410 856,25)

Coordinated by: Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile (ENEA)

Project Coordinator: Francesco Colao (francesco.colao@enea.it)

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

Contact at ENEA: francesco.colao@enea.it

Website: www.narcosis-project.eu

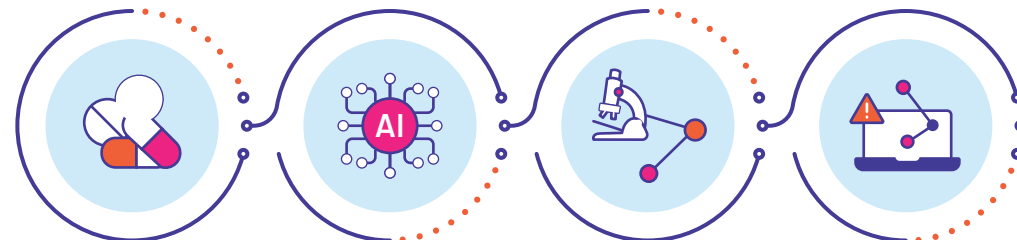
Reach us through our website and social channels:  



Non-tArgeted foRensic multidisCiplinary platfOrm
for inveStigation of drug-related fatalities



www.narcosis-project.eu



ENEA

POLICIA NACIONAL

Isdefe

Fraunhofer ICT

KiMiA

DIN



UNICF



UNIVERSITÀ
CATTOLICA
del Sacro Cuore



VTT

EIR

PARTICLE

Metrohm

UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO

TOR VERGATA
UNIVERSITÀ DEGLI STUDI DI ROMA

Universidad
de Alcalá



This project has received funding from the European Union's HORIZON EUROPE innovation programme under grant agreement No. 101168195

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 Drug-Related Deaths and other Drug-Related Operations by means of an up-to-date and updateable diagnostic platform (fast, robust and reliable)

