



GANNDALF

NextGen Collaborative Cybercrime Investigation Framework

Building the EU's NextGen investigation framework against advanced forms of cyber threats and cyber-dependent crimes.

AT-A-GLANCE

GANNDALF is an EU-funded Horizon Europe R&D project designed to empower Law Enforcement Agencies (LEAs) and the wider judicial ecosystem in **detecting, investigating, and preventing advanced cybercrime**.

The project develops a secure, modular collaboration framework with privacy-aware data sharing, AI-powered decision support tools, and a customizable sandbox for collaborative investigation.

Beyond technology, GANNDALF promotes policy innovation, professional training, and citizen engagement through its Cyber Hygiene 2.0 approach, helping society recognise, report, and resist cyber threats more effectively.

OBJECTIVES

- ◆ **Cybercrime Detection & Collaboration**
Sophisticated cyberattacks detection and mitigation, KG-enhanced LLMs for cybercrime correlation, and decision support tools for real-time cyber threat prediction and investigation.
- ◆ **Customisable Investigation Sandbox**
A secure, collaborative sandbox and flexible data-sharing tools that meet legal, ethical, and operational needs.
- ◆ **Policy, Training & Awareness**
Develop policy guidance, training programmes for LEAs, and citizen engagement tools for proactive cyber hygiene.
- ◆ **Real-World Validation**
Test tools in operational environments and multi-stakeholder scenarios addressing real-world cybercrime.
- ◆ **Pan-European Reach**
Establish sustainable mechanisms for transnational collaboration with agencies like EUROPOL and ENISA.



TECH STACK

- ◆ **GANNDALF Portal, DSS, Sandbox** - Unified interface for case management, tool deployment, and collaborative investigations.
- ◆ **Integrated SIEM** - Tailored event monitoring and alerting system for cyberattack detection.
- ◆ **AI Scenario Builder** - Uses LLMs and predictive analytics to auto-generate training and policy scenarios.
- ◆ **Crime Psychology Tools** - Behavior analysis to support threat profiling.
- ◆ **Human-Swarm Teaming** - Experimental multi-agent teaming approach to accelerate investigations.
- ◆ **PETs** - End-to-end encryption, data protection and PET recommendations for LEAs.

FACTSHEET

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USE CASES

- ◆ **Cybercrime Prevention & LEAs' Infrastructure Protection**
Financial, investment and data protection fraud. Cyber protection of emergency and critical government services.
- ◆ **Multi-Stakeholder Collaboration**
Data sharing between LEAs, prosecutors, and other stakeholders.
- ◆ **Cyber Hygiene 2.0**
Advanced training and awareness tools for professionals and citizens.



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