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RITHMS

Research, Intelligence and Technology for Heritage and Market Security

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CONSORTIUM

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Italy (Coordinator)

ART CRIME PROJECT
Italy (Affiliated Entity)

EVENFLOW
Belgium

TEKNOLOGIAN TUTKIMUSKESKUS VTT OY
Finland

FONDATSIYA EVROPREYSKI SOFTUEREN INSTITUT
Bulgaria

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Moldova

GRANICNA POLICIJA BOSNE I HERCEGOVINE
Bosnia and Herzegovina

CONCEPTIVITY SARL
Switzerland (Associated Partner)

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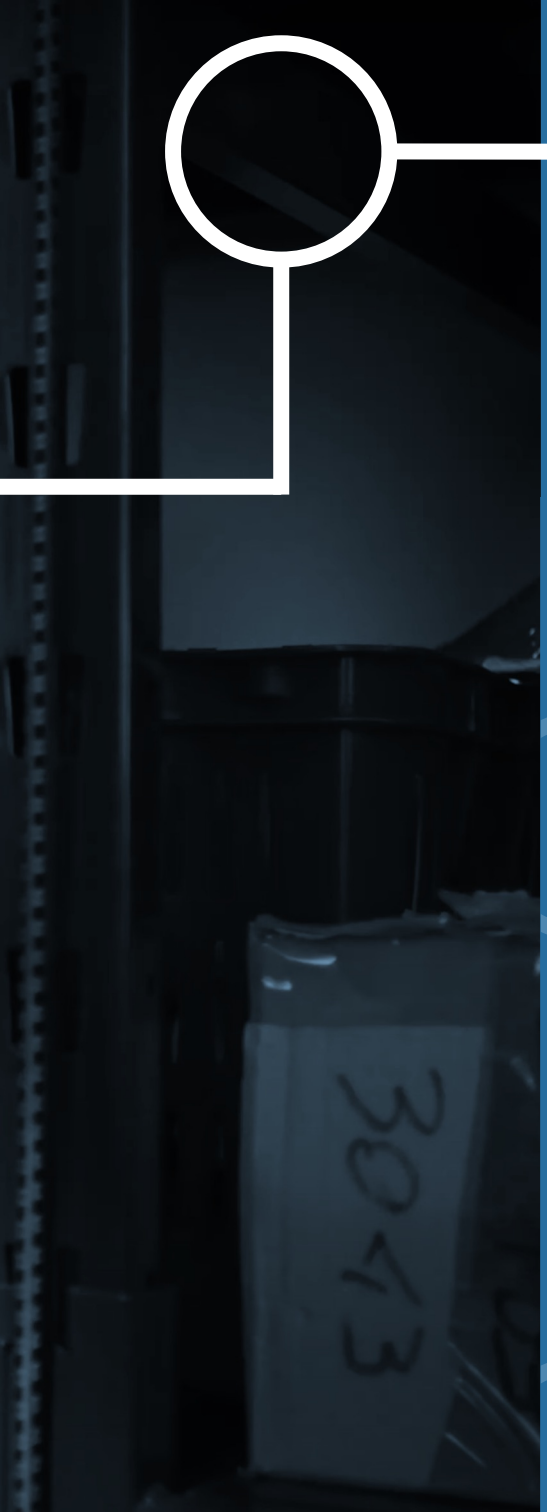

WHY RITHMS?

Misappropriation of cultural heritage represents both an economic issue and a cultural wound that cannot be repaired. The illicit trafficking of cultural goods is not a new kind of crime; nevertheless, recent decades have seen a worrying increase in its impact and reach, particularly in conflict and disaster zones.

What was once a phenomenon with mostly local roots has become a lucrative source of income for wider criminal networks, involving both white-collar and traditional criminals, who can now take advantage of online outlets and social media to expand their market. In fact, the lack of regulations, the inconsistency of different national laws, and the uncertainty of object traceability have facilitated a concerning surge in illicit transactions.

In response to this issue, RITHMS Project was conceived to develop a digital platform capable of supporting the investigations of Law Enforcement Agencies in the fight against the illicit trade of cultural property.

OBJECTIVES

UNDERSTAND THE CRIMINAL PHENOMENON OF CULTURAL HERITAGE TRAFFICKING

Promote cross-sectoral research bringing together all relevant fields (art market, criminology, legal studies, forensic science, etc.) to broaden the understanding of the criminal phenomenon against cultural property and grasp its connections with other kinds of organised crime.

PROVIDE LAW ENFORCEMENT AGENCIES WITH NEW TECHNOLOGICAL TOOLS

RITHMS will provide an operational, technological tool to enhance the investigative capabilities of Law Enforcement Agencies: a digital platform based on SNA methodology, developed and validated according to the users' needs and requirements.

OPERATIONALISE THE COLLECTED KNOWLEDGE AND THE DEVELOPED TECHNOLOGIES

Trigger all the necessary steps to make RITHMS SNA Platform effective, ensure its implementation, longevity, and exploitation after the Project's end, and foster the validity of RITHMS intelligence results as evidence in court.

PROMOTE COOPERATION TO TACKLE ILLICIT TRAFFICKING IN CULTURAL GOODS

Foster collaboration between the different actors involved in countering this type of crime. Given its organised and mobile nature, addressing the phenomenon from different angles and complementary fronts is necessary to tackle it efficiently. RITHMS will increase cross-national cooperation and activate synergies bringing together diverse expertise and research domains.

OBJECTIVES

Interoperable & Multifunctional

Multiple analysis and query tools available

Social Network Analysis (SNA)

Powered by Social Network Analysis (SNA): a method of mapping, studying, and visualising relationships among entities

Cultural Network Mapping

Able to identify, evaluate, and analyse relations and connections between criminal and non-criminal actors involved in the trafficking of cultural goods

RITHMS SNA-BASED PLATFORM

Image: Example of Social Network Graphs (SNG)

KEY FEATURES

LEA Support

Deployed only at segregated Law Enforcement Agencies (LEAs) premises. Designed to provide LEAs with enhanced intelligence on criminal networks to steer their investigations

OSINT & Restricted Data Integration

Equipped to integrate LEAs restricted data with the collected Open Source Intelligence (OSINT) data (i.e., websites, social media, repositories)

Provenence Data Management

Capable of offering LEAs a large, continuously updated provenance database of cultural property

Automated web & Social Media Scraping

Powered by 47 scraper software gathering information from 51 public websites, cultural goods repositories, and social media outlets

RITHMS Operational Scenario 1

LOOTED OBJECT
with SUSPICIOUS PROVENANCE

• Officers check out antiquities on **auction/sale** (art fair, gallery, auction house).

• Officers identify an archaeological object with incomplete provenance, no import/export documentation, only accompanied by an expert declaration of authenticity.

• Officers input acquired data into the Platform and start running multiple scrapers.

RITHMS highlights the networks of:

- **Auction house/seller's connections** (previous sellers, buyers, conferrers, usual experts):
  e.g., the expert authenticating the item stands out as the authenticator of several items recently seized as looted; a usual seller stands out for previous indictments for illicit importation.
- **Previous movements of the item** (previous sellers, buyers, collectors, auctions, art galleries):
  e.g., a missing link to a suspicious collector emerges.

• Officers enhance their investigation following the new leads.

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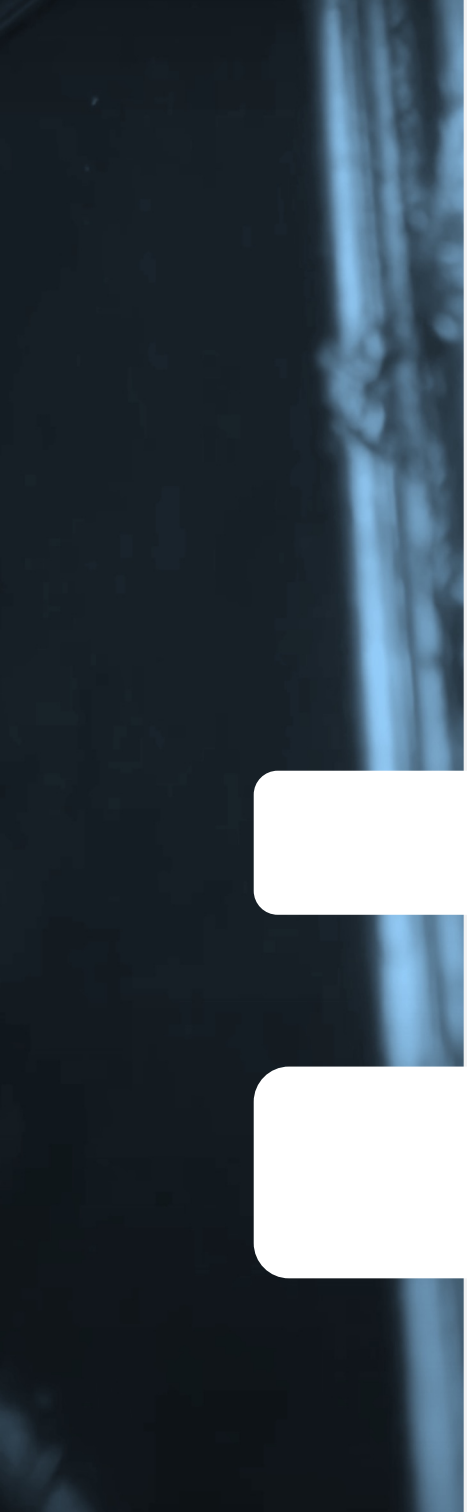

ART THEFT

- A painting is stolen from a **museum** at night.

- CCTV footage reveals two individuals, and one of them is identified based on records of previous criminal activities.

- Officers upload the name and selected data from previous investigations to the Platform.

RITHMS highlights the network of multiple criminal connections revolving around the identified thief.

- Interrogations and traditional investigative procedures lead to the arrest of the intermediary who facilitated the fencing of the painting; the name is then uploaded.

RITHMS highlights the network of relations connecting the two individuals, suggesting:

- **Additional persons of interest** to interrogate
- **Potential routes** for the stolen painting

- Officers enhance their investigation following the new leads.

COMMUNICATION & DISSEMINATION MAIN RESULTS

RITHMS INTERNATIONAL CONFERENCES

- ***Kick-off Conference***
  Venice, October 2022
- ***Trafficking in Cultural Property. A Criminological Perspective***
  A Coruña, April 2024
- ***Beyond Restoration***
  Bruxelles, December 2024
- ***Final Conference***
  Venice, September 2025

EXHIBITION

Arte Ritrovata. Ritorni in Laguna
Venice, December 2023 - February 2024

DOCUMENTARY

Threads of Heritage. Down the Rabbit Hole of Art Crime (2025)
Produced by the Centre for Cultural Heritage Technology (Istituto Italiano di Tecnologia) & No Panic Agency, Directed by Brian Parodi
Awarded the second place at the International Archaeological Film Festival in Florence, 2025

CONTACTS

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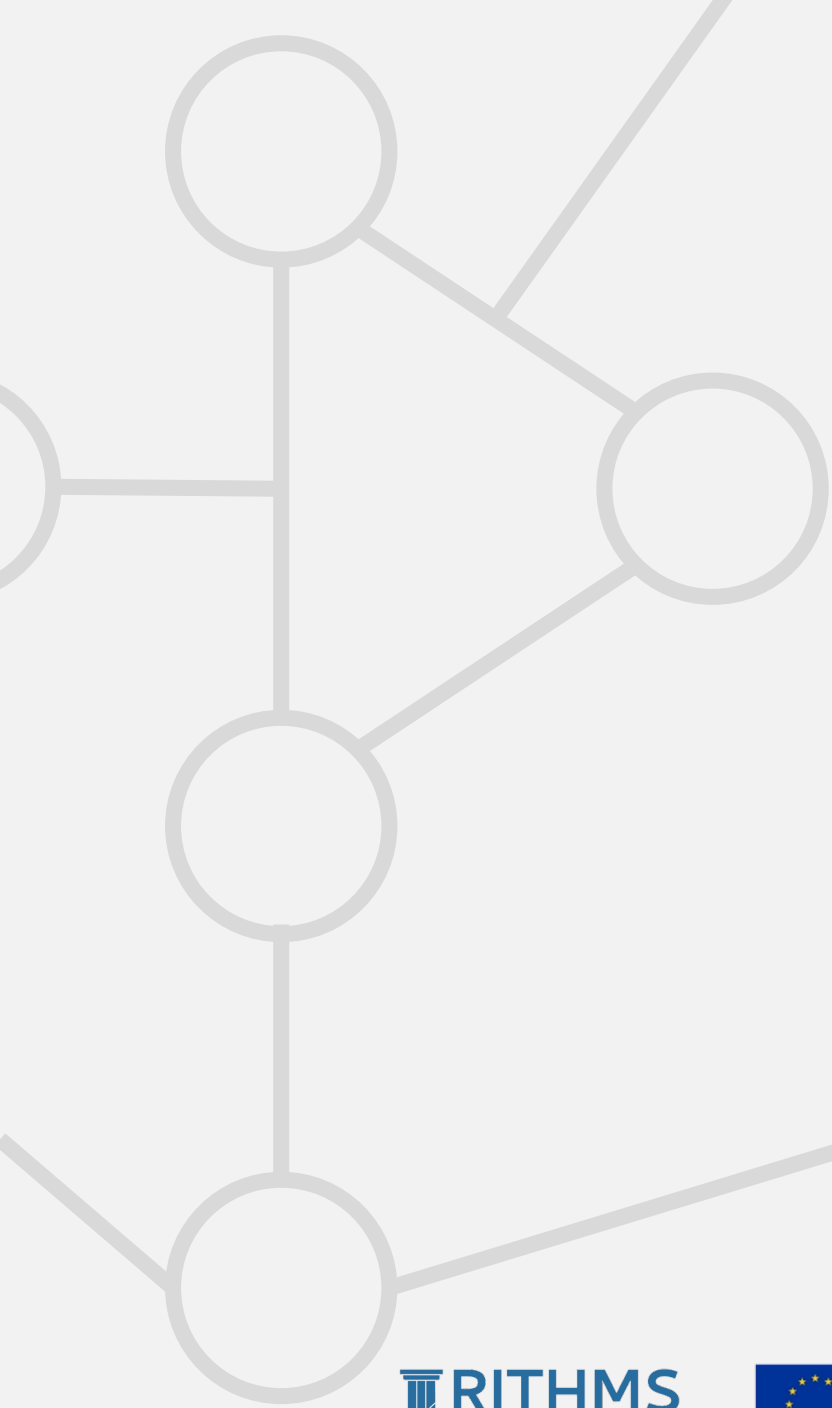

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