Tools for the Investigation of Transactions in Underground Markets

Fact Sheet

Project Information

TITANIUM

Grant agreement ID: 740558

Funded under
H2020-EU.3.7.6.
H2020-EU.3.7.1.

Project website

Overall budget
€ 4 991 600

Status
Closed project

EU contribution
€ 4 991 600

Start date
1 May 2017

End date
30 April 2020

Coordinated by
AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH
Austria

This project is featured in...

RESEARCH*EU MAGAZINE
How tech is taking on terrorism

Objective
TITANIUM will develop novel methods and technical solutions for investigating and mitigating illegitimate activities (relating to either crime or terrorism) involving virtual currencies and/or underground market transactions. Specifically, the project will:

* Establish a research and development environment that enables close and continuous collaboration between researchers, developers, legal experts, and law enforcement stakeholders in several European countries and regions

* Analyse legal and ethical requirements for tools and services, elicit technical requirements from LEA stakeholders, and establish a development ecosystem that ensures compliance with these requirements and supports the generation of court-proof evidence

* Implement tools for the automated aggregation of data from diverse sources, including the dark web, the surface web, and other sources and devices obtained through legal warrants, using multi-modal adaptive crawlers, stealth facilities, and smart filters

* Provide services for the simulation of criminal activities and the generation of synthetic data

* Investigate customizable heuristics, which can operate across different virtual currency transaction ledgers and identify clusters of addresses that are likely to belong to the same real-world entity

* Apply novel techniques based on machine-learning and deep neural networks for revealing patterns, detecting anomalies, and identifying tumblers and mixers used for money laundering

* Deploy forensics tools and services to partner LEAs and conduct Field Labs to assess the effectiveness, ethical and legal compliance, and overall impact of the results and to validate those results at technology readiness level (TRL) 6 or higher

* Prepare curricula and carry out training and joint exercises that will facilitate the take-up of TITANIUM technologies by LEAs across Europe

* Allow European SMEs and RTOs to develop cutting edge tools, to access LEA markets, and to strengthen European competitiveness

**Field of science**

/social sciences/economics and business/business and management/commerce

/natural sciences/computer and information sciences/artificial intelligence/computational intelligence

/social sciences/law

/social sciences/sociology/governance/public services

/natural sciences/computer and information sciences/artificial intelligence/heuristic programming

**Programme(s)**

**Topic(s)**

**Call for proposal**
## Funding Scheme

RIA - Research and Innovation action

## Coordinator

<table>
<thead>
<tr>
<th>AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH</th>
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<tbody>
<tr>
<td><strong>Address</strong></td>
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<tr>
<td>Giefinggasse 4</td>
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<tr>
<td>1210 Wien</td>
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<td>🇦🇹 Austria</td>
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## Participants (14)

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<tr>
<th>NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO</th>
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<tr>
<td><strong>Netherlands</strong></td>
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<td>Anna Van Buerenplein 1</td>
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<td>6020 Innsbruck</td>
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<tr>
<td>KARLSRUHER INSTITUT FUER TECHNOLOGIE</td>
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<td>UNIVERSITY COLLEGE LONDON</td>
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<td>FUNDACION CENTRO DE TECNOLOGIAS DE INTERACCIÓN VISUAL Y COMUNICACIONES VICOMTECH</td>
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DENCE GMBH
Germany
EU contribution
€ 315,062.50
Address
Konigsbrucker Str 124
01099 Dresden
Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
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TRILATERAL RESEARCH LTD
United Kingdom
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COUNTERCRAFT SL
Spain
EU contribution
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Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)
Contact the organisation

BUNDESKRIMINALAMT
Germany
EU contribution
€ 131,900
Address
Activity type
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<td>THE INTERNATIONAL CRIMINAL POLICE ORGANIZATION</td>
<td>France</td>
<td>€ 357 000</td>
<td>Quai Charles De Gaulle 200</td>
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<td>NATIONAL BUREAU OF INVESTIGATION</td>
<td>Finland</td>
<td>€ 122 541,25</td>
<td>Jokiniemenkuja 4 01370 Vantaa</td>
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<td>BUNDESMINISTERIUM FUER INNERES</td>
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<td>€ 38 100</td>
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<td>Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)</td>
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MINISTERIO DEL INTERIOR

Spain

EU contribution

€ 54 000

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Calle Amador De Los Rios 7
28071 Madrid

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Website

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Record number: 209948

Permalink: https://cordis.europa.eu/project/id/740558/

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