

Imperial College London Participation

Cluster 3: Civil Security for Society

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Using cosmic rays for better, more portable and efficient analysis
and detection for customs

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Introduction

This booklet lists the Horizon Europe Cluster 3 'Civil Security for Society' projects Imperial participates in as a Beneficiary or an Associated Partner. Funding from EC or UKRI Horizon Guarantee.

Using cosmic rays for better, more portable and efficient analysis and detection for customs

Fact Sheet

Project Information

CosmoPort

Grant agreement ID: 101121379

DOI

[10.3030/101121379](https://doi.org/10.3030/101121379) 

EC signature date

19 September 2023

Start date

1 October 2023

End date

30 September 2026

Funded under

Civil Security for Society

Total cost

€ 3 035 260,50

EU contribution

€ 2 480 335,50

Coordinated by GSCAN OU

 Estonia

Objective

The number of goods and parcels shipped is growing with unstoppable speed. With more individual shipments the means of logistics have changed from central locations to small logistics companies, postal agencies, airports, ports, private vehicles etc. However, the analysis and detection capabilities of such locations are very low, making it an easy target for transporting illicit goods.

Currently, there are no effective technologies available that would be able to cope with this growing problem. Despite the widespread use of X-ray technologies, they are still inefficient when it comes to mobile scenarios. In addition, their detection capability is based solely on visual imaging with no way to examine the exact material

content of small shipments.

We are proposing a completely novel, yet highly effective solution for this. The CosmoPort project will develop the next generation of scanner systems using Atmospheric Ray Tomography (ART). Such systems are equipped with advanced Machine Learning-based risk assessment tool. As muon tomography itself is a technique already in use, then we will develop the first mobile solution combined with AI/ML tools to enhance material and object classification for the first time ever.

Keywords

[atmospheric ray tomography](#)

[drug detection](#)

[mobile scanners](#)

[drug analysis](#)

[postal services](#)

Programme(s)

[HORIZON.2.3 - Civil Security for Society](#)

MAIN PROGRAMME

[HORIZON.2.3.2 - Protection and Security](#)

Topic(s)

[HORIZON-CL3-2022-BM-01-03 - Better, more portable and quicker analysis and detection for customs](#)

Call for proposal

[HORIZON-CL3-2022-BM-01](#)

[See other projects for this call](#)

Funding Scheme

[HORIZON-IA - HORIZON Innovation Actions](#)

Coordinator



GSCAN OU

Net EU contribution

€ 1 294 825,00

Address

**Mustamae linnaosa, maealuse tn 2/1,
12618 Tallinn**

 **Estonia** 

SME 

Yes

Region

Eesti > Eesti > Põhja-Eesti

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

€ 554 925,00

Participants (7)



FONDAZIONE BRUNO KESSLER

 Italy

Net EU contribution

€ 713 635,50

Address

Via santa croce 77

38122 Trento 

Region

Nord-Est > Provincia Autonoma di Trento > Trento

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

€ 0,00



MAKSU- JA TOLLIAMET

 Estonia

Net EU contribution

€ 51 250,00

Address

Lootsa 8a

11415 Tallin 

Region

Eesti > Eesti > Põhja-Eesti

Activity type

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

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

€ 0,00



VALSTS IENEMUMU DIENESTS

 Latvia

Net EU contribution

€ 51 250,00

Address

Talejas iela 1

LV-1978 Riga 

Region

Latvija > Latvija > Rīga

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

Other funding

€ 0,00



KENTRO MELETON ASFALIAS

 Greece

Net EU contribution

€ 215 625,00

Address

P kanellopoulou 4 st
10177 Athina 

SME 

Yes

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

€ 0,00



HELLENIC POLICE

 Greece

Net EU contribution

€ 41 250,00

Address

4 kanellopoulou avenue
101 77 Athens 

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

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

Links

[Contact the organisation](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Other funding

€ 0,00



Independent Authority for Public Revenue (IAPR)

Greece

Net EU contribution

€ 51 250,00

Address

10 kar.servias

101 84 Athens

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

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

Links

[Contact the organisation](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Other funding

€ 0,00



TULLI

Finland

Net EU contribution

€ 61 250,00

Address

Opastinsilta 12 b
00101 Helsinki 

Region

Manner-Suomi > Pohjois- ja Itä-Suomi > Etelä-Savo

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

€ 0,00

Partners (2)



IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE

 United Kingdom

Net EU contribution

€ 0,00

Address

South kensington campus exhibition road

SW7 2AZ London 

Region

London > Inner London — West > Westminster

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

No data




HOME OFFICE

 United Kingdom

Net EU contribution

€ 0,00

Address

2 marsham street
SW1P 4DF London 

Region

London > Inner London — West > Westminster

Activity type

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

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Other funding

No data

Last update: 4 October 2023

Permalink: <https://cordis.europa.eu/project/id/101121379>

European Union, 2024