

HORIZON
2020

Warning and Mitigation Technologies for Travelling Ionospheric Disturbances Effects

Fact Sheet

Project Information

TechTIDE

Grant agreement ID: 776011

[Project website](#) 

DOI

[10.3030/776011](https://doi.org/10.3030/776011) 

Project closed

EC signature date

29 September 2017

Start date

1 November 2017

End date

31 July 2020

Funded under

INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies – Space

Total cost

€ 1 579 000,00

EU contribution

€ 1 579 000,00

Coordinated by

ETHNIKO ASTEROSKOPEIO

ATHINON



Greece

Objective

Travelling Ionospheric Disturbances (TIDs) constitute a threat for operational systems for which the ionosphere is an essential part (i.e. radio systems) or for which the ionosphere is fundamentally a nuisance (i.e. GNSS based systems and applications). The overarching objective of TechTIDE is to design and test new viable TID impact mitigation strategies for the technologies affected by the TIDs and in close collaboration with operators of these technologies, to demonstrate the added

value of the proposed mitigation techniques which are based on TechTIDE products. To achieve this main goal, it is necessary to address the following specific objectives:

- i. Improve understanding regarding the physical processes resulting in the formation of TIDs, and consequently to identify the drivers in the interplanetary medium, the magnetosphere and the atmosphere;
- ii. Define the impact of the TIDs on the space based navigation systems (mainly EGNOS services and N-RTK) and on ground-based HF communication and geolocation systems;
- iii. Develop improved methodologies, based on consortium partners' algorithms, suitable to support for the first time the direct, real-time identification and tracking of TIDs over wide world regions;
- iv. Establish an operational system to issue warnings of the occurrence of TIDs over the region extending from Europe to South Africa, to estimate the parameters that specify the TID characteristics and the inferred perturbation, and provide all additional geophysical information to the users to help them assess the risks and to develop mitigation techniques, tailored to their applications;
- v. Work systematically with potential users to assess the functionality, reliability and efficiency of the TechTIDE services paving the way to its systematic exploitation from users and to its sustainable operation.

Fields of science (EuroSciVoc)

[natural sciences](#) > [computer and information sciences](#) > **[software](#)**

[social sciences](#) > [social geography](#) > [transport](#) > [navigation systems](#) > [satellite navigation system](#) > **[global navigation satellite system](#)**

[natural sciences](#) > [physical sciences](#) > [astronomy](#) > [galactic astronomy](#) > **[solar physics](#)**

[natural sciences](#) > [earth and related environmental sciences](#) > [atmospheric sciences](#) > [meteorology](#) > **[solar radiation](#)**



Programme(s)

[H2020-EU.2.1.6. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies – Space](#) MAIN PROGRAMME

[H2020-EU.2.1.6.2. - Enabling advances in space technology](#)

[H2020-EU.2.1.6.1.1. - Safeguard and further develop a competitive, sustainable and entrepreneurial space industry and research community and strengthen European non-dependence in space systems](#)

Topic(s)

[COMPET-5-2017 - Space Weather](#)

Call for proposal

[H2020-COMPET-2017](#)

[See other projects for this call](#)

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



ETHNIKO ASTEROSKOPEIO ATHINON

Net EU contribution

€ 247 625,00

Total cost

€ 247 625,00

Address

LOFOS NYMFON

11810 Athina

 **Greece** 

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Participants (12)



DEUTSCHES ZENTRUM FUR LUFT - UND RAUMFAHRT EV

 Germany

Net EU contribution

€ 176 250,00

Address

LINDER HOHE

51147 Koln 

Region

Nordrhein-Westfalen > Köln > Bonn, Kreisfreie Stadt

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 176 250,00



USTAV FYZIKY ATMOSFERY AV CR, v.v.i.

 Czechia

Net EU contribution

€ 115 625,00

Address

BOCNI II 1401

141 31 Praha 4 

Activity type

Research Organisations

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Total cost

€ 115 625,00



INSTITUT ROYAL METEOROLOGIQUE DE BELGIQUE

 Belgium

Net EU contribution

€ 76 375,00

Address

AVENUE CIRCULAIRE 3

1180 Bruxelles / Brussel 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Research Organisations

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Total cost

€ 76 375,00



OBSERVATORIO DEL EBRO FUNDACION

 Spain

Net EU contribution

€ 117 250,00

Address

CARRER OBSERVATORI 3

43520 Roquetes 

Region

Este > Cataluña > Tarragona

Activity type

Research Organisations

Links

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

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

Total cost

€ 117 250,00



BOREALIS GLOBAL DESIGNS EOOD

 Bulgaria

Net EU contribution

€ 110 125,00

Address

BLVD MARIA LOUISA 24 ENTR A FLOOR 1 AP 1
9000 Varna 

SME 

Yes

Region

Северна и Югоизточна България > Североизточен > Варна

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Total cost

€ 110 125,00



LEIBNIZ-INSTITUT FUR ATMOSPHEREPHYSIK EV AN DER UNIVERSITAT ROSTOCK

 Germany

Net EU contribution

€ 73 000,00

Address

SCHLOSS STRASSE 6
18225 Kuhlungsborn 

Region

Mecklenburg-Vorpommern > Mecklenburg-Vorpommern > Landkreis Rostock

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 73 000,00



UNIVERSITAT POLITECNICA DE CATALUNYA

 Spain

Net EU contribution

€ 193 500,00

Address

CALLE JORDI GIRONA 31

08034 Barcelona 

Region

Este > Cataluña > Barcelona

Activity type

Higher or Secondary Education Establishments

Links

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

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

[HORIZON collaboration network](#) 

Total cost

€ 193 500,00



EUROPEAN SATELLITE SERVICES PROVIDER SAS

 France

Net EU contribution

€ 201 450,00

Address

3 RUE TARFAYA

31400 Toulouse 

Region
Occitanie > Midi-Pyrénées > Haute-Garonne

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links
[Contact the organisation](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
€ 201 450,00



SOUTH AFRICA NATIONAL SPACE AGENCY

South Africa
Net EU contribution
€ 57 750,00

Address
**MARK SHUTTLEWORTH STREET, ENTERPRISE BUILDING, INNOVATION HUB
0087 Pretoria**

Activity type
Research Organisations

Links
[Contact the organisation](#) [Website](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
€ 57 750,00



WATERMANN JURGEN

France
Net EU contribution
€ 65 050,00

Address

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)

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

[HORIZON collaboration network](#)

Total cost

€ 65 050,00



FREDERICK UNIVERSITY FU

Cyprus

Net EU contribution

€ 73 875,00

Address

GIANNI FREIDERIKOU 7

1036 Pallouriotissa Lefkosia



Region

Κύπρος > Κύπρος > Κύπρος

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)

[Website](#)

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

[HORIZON collaboration network](#)

Total cost

€ 73 875,00



BUNDESPOLIZEI

Germany

Net EU contribution

€ 71 125,00

Address

Heinrich Mann Allee 103

14473 Potsdam



Region

Brandenburg > Brandenburg > Potsdam

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](#) 

Total cost

€ 71 125,00

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Permalink: <https://cordis.europa.eu/project/id/776011>

European Union, 2025