



Software Components for Robust Geometry Processing

Fact Sheet

Project Information

TITANIUM

Grant agreement ID: 727334

DOI

[10.3030/727334](https://doi.org/10.3030/727334)

Project closed

EC signature date

16 September 2016

Start date

1 January 2017

End date

30 June 2018

Funded under

EXCELLENT SCIENCE - European Research Council (ERC)

Total cost

€ 150 000,00

EU contribution

€ 150 000,00

Coordinated by

INSTITUT NATIONAL DE
RECHERCHE EN
INFORMATIQUE ET
AUTOMATIQUE

 France

This project is featured in...



11 June 2018



Objective

The TITANIUM proposal aims to develop a software demonstrator for geometry processing and 3D urban modeling, in order to facilitate the pre-commercialization of novel software components for the Computational Geometry Algorithms Library. The proposed demonstrator will include novel approaches resulting from the ERC-funded IRON project ('Robust Geometry Processing', StG-2010-257474), which are illustrated by publications presented at premier conferences in our field (receiving two best paper awards) and a patent submitted in 2015. The expected outcomes of TITANIUM will be versatile methods for 3D reconstruction and simplification of data gathered from geometric measurements, as well as related methods specifically tailored to urban modeling. These methods represent a significant step forward by offering unrivaled levels of robustness, and automated generation of levels of detail that are semantically meaningful. The acronym TITANIUM, a robust and lightweight material, conveys our wish to streamline the geometric modeling pipeline through robust algorithms and lightweight representations. This Proof of Concept project will also implement the steps required for pre-commercialization. In view of this goal, we have included an industrial partner, GeometryFactory, a spinoff from Inria launched in 2003. We have already established preliminary contacts in the fields of metrology and geographic information systems. These contacts will provide real-world industrial case studies.

Fields of science (EuroSciVoc)

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

[natural sciences](#) > [earth and related environmental sciences](#) > [physical geography](#) > [cartography](#) > [geographic information systems](#)

[natural sciences](#) > [chemical sciences](#) > [inorganic chemistry](#) > [transition metals](#)

[natural sciences](#) > [mathematics](#) > [pure mathematics](#) > [geometry](#)



Programme(s)

[H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council \(ERC\)](#)

MAIN PROGRAMME

Topic(s)

Call for proposal

[ERC-2016-PoC](#)

[See other projects for this call](#)

Funding Scheme

[ERC-POC - Proof of Concept Grant](#)

Host institution



INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET AUTOMATIQUE

Net EU contribution

€ 112 500,00

Total cost

€ 112 500,00

Address

DOMAINE DE VOLUCEAU ROCQUENCOURT

78153 Le Chesnay Cedex

 **France** 

Activity type

Research Organisations

Links

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

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

[HORIZON collaboration network](#) 

Beneficiaries (2)



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Total cost

€ 112 500,00



GEOMETRY FACTORY SARL

 France

Net EU contribution

€ 37 500,00

Address

AV. YVES EMMANUEL BAUDOIN 20

06130 Grasse 

SME 

Yes

Region

Provence-Alpes-Côte d'Azur > Provence-Alpes-Côte d'Azur > Alpes-Maritimes

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

€ 37 500,00

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Permalink: <https://cordis.europa.eu/project/id/727334>

European Union, 2025

