

HORIZON
2020

Evaluation of NDT Techniques for Assessment of Critical Process and Manufacturing Related Flaws and Defects for a Ti-alloy

Fact Sheet

Project Information

3TANIUM

Grant agreement ID: 101007830

[Project website](#)

DOI

[10.3030/101007830](#)

Project closed

EC signature date

1 December 2020

Start date

1 January 2021

End date

31 December 2022

Funded under

SOCIETAL CHALLENGES - Smart, Green And Integrated Transport

Total cost

€ 550 000,00

EU contribution

€ 550 000,00

Coordinated by

CEST KOMPETENZZENTRUM
FUR ELEKTROCHEMISCHE
OBERFLACHENTECHNOLOGIE
GMBH



Austria

Project description

A non-destructive method of testing 3D-printed aircraft alloy parts

Ti-6Al-4V is a titanium alloy that is used in a wide range of applications where high strength, light weight and excellent corrosion resistance are essential, such as in the aerospace industry. Additive manufacturing promises to revolutionise Ti-6Al-4V alloy

manufacturing, allowing the design of functional components with complex geometric shapes and reduced weight without sacrificing component strength and safety. Damage tolerance assessment methods for 3D-printed aircraft parts are critical for approving additive manufacturing in aircraft structural components and meeting functional and safety requirements. The main goal of the EU-funded 3TANIUM project is to develop non-destructive methods of securely detecting critical flaws and defects that additive manufacturing can introduce, and to understand their impact on the mechanical properties of Ti-6Al-4V parts.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [mechanical engineering](#) > [vehicle engineering](#) > [aerospace engineering](#) > **[aircraft](#)**

[engineering and technology](#) > [mechanical engineering](#) > [manufacturing engineering](#) > **[subtractive manufacturing](#)**

[engineering and technology](#) > [mechanical engineering](#) > [vehicle engineering](#) > [aerospace engineering](#) > **[aeronautical engineering](#)**

[engineering and technology](#) > [environmental engineering](#) > **[energy and fuels](#)**

[engineering and technology](#) > [mechanical engineering](#) > [manufacturing engineering](#) > **[additive manufacturing](#)**



Keywords

[additive manufacturing](#)

[titanium alloys](#)

[non-destructive testing](#)

[safety requirements](#)

[aeronautical industry](#)

[reduced fuel consumption and carbon dioxide emission](#)

Programme(s)

[H2020-EU.3.4. - SOCIETAL CHALLENGES - Smart, Green And Integrated Transport](#)

MAIN PROGRAMME

[H2020-EU.3.4.5.4. - ITD Airframe](#)

Topic(s)

[JTI-CS2-2020-CFP11-AIR-01-46 - Evaluation of NDT Techniques for Assessment of Critical Process and Manufacturing Related Flaws and Defects for a Ti-alloy](#)

Call for proposal

[H2020-CS2-CFP11-2020-01](#) 

[See other projects for this call](#)

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



**CEST KOMPETENZZENTRUM FUR ELEKTROCHEMISCHE
OBERFLACHENTECHNOLOGIE GMBH**

Net EU contribution

€ 196 485,00

Total cost

€ 196 485,00

Address

**VIKTOR KAPLAN STRASSE 2
2700 Wiener Neustadt**

 **Austria** 

SME 

Yes

Region

Ostösterreich > Niederösterreich > Niederösterreich-Süd

Activity type

Research Organisations

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Participants (3)



PREMET KFT

Hungary

Net EU contribution

€ 100 140,00

Address

EBNER GYORGY KOZ 4
2040 Budaors

Region

Közép-Magyarország > Pest > Pest

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

€ 100 140,00



VZLU AEROSPACE AS

Czechia

Net EU contribution

€ 149 750,00

Address

LETNANY BERANOVYCH 130
190 00 PRAHA 18

Region

Česko > Praha > Hlavní město Praha

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)

Total cost

€ 149 750,00



FH OO FORSCHUNGS & ENTWICKLUNGS GMBH

 Austria

Net EU contribution

€ 103 625,00

Address

ROSEGGERSTRASSE 15

4600 Wels 

Region

Westösterreich > Oberösterreich > Linz-Wels

Activity type

Research Organisations

Links

[Contact the organisation](#) 

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

[HORIZON collaboration network](#) 

Total cost

€ 103 625,00

Last update: 18 January 2024

Permalink: <https://cordis.europa.eu/project/id/101007830>

European Union, 2025