Development of the complete workflow for producing and using a novel nanomodified Ti-based alloy for additive manufacturing in special applications.

Fact Sheet

Project information

**NANOTUN3D**

Grant agreement ID: 685952

Project website

Start date 1 October 2015  
End date 30 September 2019

Funded under:  
H2020-EU.2.1.2.2.  
H2020-EU.2.1.2.5.  
H2020-EU.2.1.2.1.

Overall budget:  
€ 2 936 657,20

EU contribution  
€ 2 936 656,25

Coordinated by:  
INSTITUTO TECNOLOGICO METALMECANICO, MUEBLE, MADERA, EMBALAJE Y AFINES-AIDIMME  
Spain

Objective

NANOTUN3D will take advantage of the possibilities of Additive Manufacturing (AM) together with the development of a specially tailored Ti-based nano-aditived material to achieve dramatic improvements in structural parts of aero, space, mobility, and equipment sectors, reaching expected savings between 40% and 50% of material in critical applications. Inherent benefits of AM will be kept (decrease in throughput times, tool-less production, high buy-to-fly-run ratios, etc.).

By adding nano-particles (np) to metal matrixes, the whole life cycle of the NANOTUN3D material has been designed with AM processability in mind: safety and handling issues, processing in well-known AM technologies, postprocessing and eventual certification issues are dealt with, and innovative core-shell treatment of the nano-particles that suits the Ti matrix and produces Ti64-like powder ready to be AM processed. A whole Health, Safety and Environmental (HSE) management system will also be developed, as well as all the protocols to start qualification/certification of material and process.
Field of Science

/engineering and technology/mechanical engineering/manufacturing engineering/additive manufacturing

Programme(s)

H2020-EU.2.1.2.2. - Ensuring the safe and sustainable development and application of nanotechnologies

H2020-EU.2.1.2.5. - Developing and standardisation of capacity-enhancing techniques, measuring methods and equipment

H2020-EU.2.1.2.1. - Developing next generation nanomaterials, nanodevices and nanosystems

Topic(s)

NMP-07-2015 - Additive manufacturing for tabletop nanofactories

Call for proposal

H2020-NMP-PILOTS-2015

See other projects for this call

Funding Scheme

RIA - Research and Innovation action

Coordinator

INSTITUTO TECNOLOGICO METALMECANICO, MUEBLE, MADERA, EMBALAJE Y AFINES-AIDIMME

Address

Calle Leonardo Da Vinci 38
Parque Tecnologico
46980 Paterna Valencia

Spain

Activity type

Research Organisations

EU Contribution

€ 489 031,25

Contact the organisation
### ASOCIACION DE INVESTIGACION DE LAS INDUSTRIAS METALMECANICAS, AFINES Y CONEXAS

- **Address**: Parque Tecnologico Valencia - Avda. Leonardo Da Vinci 38
- **Activity type**: Research Organisations
- **Website**:
- **Contact the organisation**

### Participants (8)

<table>
<thead>
<tr>
<th>Organisation</th>
<th>EU Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAURENTIA TECHNOLOGIES SLL</td>
<td>€ 209 906,25</td>
</tr>
<tr>
<td><strong>Address</strong>: Plaza Honduras 9 1 46022 Valencia</td>
<td></td>
</tr>
<tr>
<td><strong>Activity type</strong>: Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
<td></td>
</tr>
<tr>
<td><strong>Website</strong>:</td>
<td></td>
</tr>
<tr>
<td><strong>Contact the organisation</strong>:</td>
<td></td>
</tr>
</tbody>
</table>

| ASOCIACION CENTRO TECNOLOGICO CEIT-IK4 | € 458 737,50 |
| **Address**: Paseo Manuel De Lardizabal 15 20018 San Sebastian |
| **Activity type**: Research Organisations |
| **Website**: |
| **Contact the organisation**: |

<p>| UNIVERSITAT POLITECNICA DE VALENCIA | € 225 531,25 |
| <strong>Address</strong>: Camino De Vera Sn Edificio 3a 46022 Valencia |
| <strong>Activity type</strong>: Higher or Secondary Education Establishments |
| <strong>Website</strong>: |
| <strong>Contact the organisation</strong>: |</p>
<table>
<thead>
<tr>
<th>Organisation</th>
<th>EU Contribution</th>
<th>Address</th>
<th>Activity type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZOZ GMBH</td>
<td>€ 321 468,75</td>
<td>Maltozstrasse 57482 Wenden</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>TLS TECHNIK GMBH &amp; CO. SPEZIALPULVER KG</td>
<td>€ 303 775</td>
<td>Pc Strasse Gebaude 1 23 06749 Bitterfeld</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>APR SRL</td>
<td>€ 238 068,75</td>
<td>Via R. Incerti 10064 Pinerolo (Torino)</td>
<td>Private for-profit entities (excluding Higher or Secondary Education Establishments)</td>
</tr>
<tr>
<td>VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.</td>
<td>€ 275 281,25</td>
<td>Boeretang 200 2400 Mol</td>
<td>Research Organisations</td>
</tr>
</tbody>
</table>
TWI LIMITED
United Kingdom

Address
Granta Park Great Abington
Cb21 6al Cambridge

Activity type
Research Organisations

EU Contribution
€ 414 856,25

Website
Contact the organisation

This project is featured in...

CORDIS RESULTS PACK
Nano-enhanced industrial materials: Building the next European industrial revolution

30 January 2019

Share this page

Last update: 2 April 2020
Record number: 198813


© European Union, 2019