Prandtlplane ARchitecture for the Sustainable Improvement of Future AirpLanes

Fact Sheet

Project Information

<table>
<thead>
<tr>
<th>Project Information</th>
<th>PARSIFAL</th>
<th>Funded under H2020-EU.3.4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant agreement ID: 723149</td>
<td>Overall budget</td>
<td>€ 2 955 706,25</td>
</tr>
<tr>
<td>Project website [🔗]</td>
<td>EU contribution</td>
<td>€ 2 955 706,25</td>
</tr>
<tr>
<td>Status</td>
<td>Coordinated by UNIVERSITA DI PISA</td>
<td>Italy</td>
</tr>
<tr>
<td>Closed project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start date</td>
<td>End date</td>
<td>1 May 2017</td>
</tr>
<tr>
<td>1 May 2017</td>
<td>31 July 2020</td>
<td></td>
</tr>
</tbody>
</table>

Objective

The project PARSIFAL (Prandtlplane ARchitecture for the Sustainable Improvement of Future AirpLanes) aims at defining the basis to improve the air transport of the future by evaluating the effects of the introduction of an innovative box-wing aircraft, called “PrandtlPlane” (PrP), into service. The project is focused on the medium size commercial aircraft category, in which the adoption of the PrP configuration can confer to aircraft with the same overall dimensions and fuel consumption of an A320/B737 the payload capacity of an A330/B767. In addition, a further objective of PARSIFAL is to develop the design tools that would allow to investigate the application of the PrP configuration to other aircraft categories, such as the ultra-large airliners, for which the PrP can provide a huge increase of payload (passengers and freight), keeping the dimensions fully compatible with existing airports. The efficiency of the PrP aircraft resulting after the conclusion of PARSIFAL will be compared with the most efficient equivalent conventional aircraft and the advantages of the new configuration will be quantified, taking also the standpoint of
of the new configuration will be quantified, taking also the standpoint of manufacturers, airlines and airport managers into account. The PARSIFAL Consortium is made of 6 partners from 4 different countries; University of Pisa (Italy), as coordinator, University of Delft (The Netherlands), ONERA (France), DLR (Germany), ENSAM (France) and SkyBox Engineering S.r.l. (Italy). In addition, an Advisory Board composed of representatives of aircraft manufacturers, airlines and airport management companies will provide requirements, guidance and industrial expertise to shape and support PARSIFAL from different viewpoints.

**Field of science**
/social sciences/social and economic geography/transport
/engineering and technology/mechanical engineering/vehicle engineering/aerospace engineering/aircraft

**Programme(s)**

**Topic(s)**

**Call for proposal**

H2020-MG-2016-Two-Stages

**Funding Scheme**

RIA - Research and Innovation action

**Coordinator**

**UNIVERSITA DI PISA**

Address
Lungarno Pacinotti 43/44
56126 Pisa
Italy

Activity type
Higher or Secondary Education Establishments

EU contribution
€ 669 487,50

**Participants (5)**

**TECHNISCHE UNIVERSITEIT DELFT**

Netherlands
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Country</th>
<th>EU contribution</th>
<th>Address</th>
<th>Activity type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES</td>
<td>France</td>
<td>€ 594 937,50</td>
<td>Chemin De La Huniere 91120 Palaiseau</td>
<td>Research Organisations</td>
</tr>
<tr>
<td>DEUTSCHES ZENTRUM FUR LUFT - UND RAUMFAHRT EV</td>
<td>Germany</td>
<td>€ 280 962,50</td>
<td>Linder Hohe 51147 Koln</td>
<td>Research Organisations</td>
</tr>
<tr>
<td>ECOLE NATIONALE SUPERIEURE D'ARTS ET METIERS</td>
<td>France</td>
<td>€ 545 300</td>
<td>Boulevard De L Hopital 151 75013 Paris</td>
<td>Higher or Secondary Education Establishments</td>
</tr>
<tr>
<td>SKYBOX ENGINEERING SRL</td>
<td>Italy</td>
<td>€ 322 500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Address
Via San Biagio 49
56124 Pisa

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

Contact the organisation

Last update: 14 October 2020
Record number: 209709

Permalink: https://cordis.europa.eu/project/id/723149/

© European Union, 2020