

PROJECT

## **AGILE 4.0**

### **AGILE 4.0: Towards cyber-physical collaborative aircraft development**

**Funding:** European (Horizon 2020)

**Duration:** Sep 2019 - Aug 2022

**Status:** Ongoing

**Total project cost:** €6,098,408

**EU contribution:** €4,499,670



[CORDIS RCN : 223191](#)

#### **Objectives:**

A major challenge in the transport sector is to make economic growth compatible with sustainability and environmental constraints, while remaining competitive and innovative. The development of aeronautical products is a complex multidisciplinary process with requirements and constraints on the air transport system as a whole, the aircraft, and all the individual components to be produced. A major challenge impeding an efficient and cost-effective design processes is the integration of the various levels of the aeronautical supply chain. Therefore, the aeronautical industry needs to connect all the people, skills and technologies involved in its collaborative, multi-national and cross organizational processes, by means of a digital representation of production systems, supply chains, and seamless operations across diverse disciplines, during the entire life-cycle of the product.

The high-level objective of AGILE 4.0 is to bring significant reductions in aircraft development costs and time-to-market through the implementation of an integrated cyber-physical aeronautical supply chain, thereby increasing the competitiveness of the European aircraft industry, from integrators and high-tiers suppliers to SMEs, leading to innovative and more sustainable aircraft products.

AGILE 4.0 targets the digital transformation of main pillars of the aeronautical supply-chain: design, production and certification and manufacturing. The composition of the AGILE 4.0 consortium and capabilities available enable to address realistic development scenarios integrating multiple stakeholders and covering all the aspects of the development of complex aeronautical systems.

AGILE 4.0 will provide the aircraft industry with a way to model, assess, and optimize complex systems addressing the entire life cycle. The technologies developed will enable stake-holders and actors of the aeronautical supply chain to perform trade-off which have never been possible to model before.

#### **Parent Programmes:**

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

**Other programmes:** MG-3-1-2018 Multidisciplinary and collaborative aircraft design tools and processes

#### **Lead Organisation:**

**Deutsches Zentrum Fr Luft Und Raumfahrt E.v**

**Address:**

Linder Hoehe  
51147 KOELN  
Germany

**Organisation Website:**

<http://www.dlr.de>

**EU Contribution:** €638,694

**Partner Organisations:****Embraer Sa****Address:**

Avenida Brigadeiro Faria Lima 2170  
Sao Jose Dos Campos -  
12227 901  
Brazil

**EU Contribution:** €0

**Stichting Nationaal Lucht En-Ruimtevaartlaboratorium****Address:**

Anthony Fokkerweg 2  
1059CM AMSTERDAM  
Netherlands

**Organisation Website:**

<http://www.nlr.nl>

**EU Contribution:** €426,125

**Rheinisch-Westfaelische Technische Hochschule Aachen****Address:**

Templergraben  
52062 Aachen  
Germany

**Organisation Website:**

<http://www.rwth-aachen.de>

**EU Contribution:** €301,688

**Institut Superieur De L'aeronautique Et De L'espace****Address:**

AVENUE EDOUARD BELIN 10  
31055 TOULOUSE  
France

**Organisation Website:**

<http://www.isae.fr>

**EU Contribution:** €18,625

**Universita Degli Studi Di Napoli Federico II****Address:**

CORSO UMBERTO I, 40  
80138 NAPOLI  
Italy

**Organisation Website:**

<http://www.unina.it>

**EU Contribution:** €381,666

**Airbus Defence And Space Gmbh****Address:**

Ludwig-Boelkow-Allee 1  
85521 Ottobrunn  
Germany

**Organisation Website:**

<http://www.airbus-group.com>

**EU Contribution:** €389,755

**Ke-Works Bv****Address:**

MOLENGRAAFFSINGEL 12-14  
2629 JD DELFT  
Netherlands

**Organisation Website:**

<http://www.ke-works.com>

**EU Contribution:** €234,813

**Office National D'etudes Et De Recherches Aerospatiales****Address:**

CHEMIN DE LA HUNIERE  
91120 PALAISEAU  
France

**Organisation Website:**

<http://www.onera.fr>

**EU Contribution:** €458,219

**Federalnoe Gosudarstvennoe Unitarnoe Predpriyatie Centralnii Institutaviacionogo Motorostroeniya Imeni Pi Baranova****Address:**

AVIAMOTORNAYA ST 2  
MOSKVA  
111116  
Russia

**Organisation Website:**

<http://www.ciam.ru>

**EU Contribution:** €0

**Bombardier Inc.****Address:**

800 BOULEVARD RENE LEVESQUE OUEST  
MONTREAL, H3B 1Y8  
Canada

**EU Contribution:** €0

**Federal State Unitary Enterprise The Central Aerohydrodynamic Institute Named After Prof. N.e. Zhukovsky****Address:**

Zhukovsky str 1  
ZHUKOVSKY  
140180  
Russia

**Organisation Website:**

<http://www.tsagi.ru>

**EU Contribution:** €0

**Cfs Engineering Sa**

**Address:**

Epfl Innovation Park Batiment A  
1015 Lausanne  
Switzerland

**Organisation Website:**

<http://www.cfse.ch>

**EU Contribution:** €415,775

**Politecnico Di Torino**

**Address:**

Corso Duca Degli Abruzzi  
10129 Torino  
Italy

**Organisation Website:**

<http://www.polito.it>

**EU Contribution:** €235,088

**Concordia University**

**Address:**

BOULEVARD DE MAISONNEUVE WEST 1455  
MONTREAL, H3G 1M8  
Canada

**EU Contribution:** €0

**Leonardo - Societa Per Azioni**

**Address:**

Piazza Monte Grappa 4  
195 Roma  
Italy

**EU Contribution:** €281,191

**Technische Universiteit Delft**

**Address:**

STEVINWEG 1  
2628 CN DELFT  
Netherlands

**Organisation Website:**

<http://www.tudelft.nl>

**EU Contribution:** €436,783

**Fokker Aerostructures Bv****Address:**

Industrieweg 4  
3351 LB Papendrecht  
Netherlands

**Organisation Website:**

<http://www.storkaerospace.com>

**EU Contribution:** €281,250

**Technologies:**

Information systems  
Semantic technology

**STRIA Roadmaps:** Vehicle design and manufacturing

**Transport mode:** Air transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Other specified

**Geo-spatial type:** Other