



EU-CHINA JOINT RESEARCH ON AVIATION AND AERONAUTICS



FOR GREEN, SAFE AND INCREASED DIGITALISATION OF AVIATION IN THE EU AND CHINA



Aviation and especially **aeronautics** constitute an important strategic area of collaboration on research and innovation between the EU and China for working towards **green**, **safe** and **increased digitalisation** of aviation in the EU and China.

FLAGSHIP ON AVIATION RESEARCH IN HORIZON 2020

Under the EU's framework programme Horizon 2020, four new research and innovation actions will start in April 2016 with joint funds from the EU (DG Research and Innovation) and China (Ministry of Industry and Information Technologies MIIT) to address the technology areas of mutual interest focusing on green, safe and increased digitalisation of aviation. The projects will address the specific areas of common interest that have been identified within the [GRAIN](#) support action. The GRAIN technical expert groups identified areas and specific topics of mutual interest, four of which after a consultation process with the European and Chinese stakeholders, were selected for the coordinated call "International cooperation in aeronautics with China" under the Horizon 2020 Transport Work Programme 2014-2015.

Coordinated Call:

Project duration
01 April 2016 -
31 March 2019

15 million EUR
Joint Funding

IMAGE

Innovative methodologies and technologies for reducing aircraft noise generation and emission

ECO-COMPASS

Ecological and multifunctional composites for application in aircraft interior and secondary structures

DRAGY

Drag reduction in turbulent boundary layer via flow control

EMUSIC

Efficient manufacturing for aerospace components using additive manufacturing, net shape HIP and investment casting

The EU-China FP7 support action GRAIN2 will deliver their proposals for future topics in aviation of mutual interest. Through consultation processes with the stakeholders in Europe and China, possible coordinated activities can be identified and selected for joint funding in the future. **WATCH OUT FOR NEWS ON THE HORIZON 2020 WEBSITE!**

The [EU-China Week on Aviation Research](#), 18 -22 April 2016 in Brussels, kicked-off of the four new research projects and paved the way for future joint EU China research in aviation and aeronautics.

EU-CHINA SUPPORT ACTIONS IN FP6 AND FP7

The EU-China cooperation in aeronautics made significant progress during FP6 and FP7 being one of the first industrial sectors where the cooperation was developed. A number of support actions for the EU-China cooperation in aeronautics were launched with an increasing financial contribution from the Chinese side.

1.9 million EUR

**Balanced
partnership**

**Average 16 EU
and 16 Chinese
Partners**

AEROCHINA

Promoting scientific cooperation between Europe and China in the field of multi-physics modelling, simulation, validation, experimentation and design methods in aeronautics

2005-10-01 to 2007-04-30

<http://www.cimne.com/aerochina/>

AEROCHINA2

Prospecting and promoting scientific cooperation between Europe and China in the field of multi-physics modelling, simulation, experimentation and design methods in aeronautics

2007-10-01 to 2009-12-31

<http://www.cimne.com/aerochina2/>

GRAIN

Greener Aeronautics International Networking

2010-10-01 to 2012-12-31

<http://www.cimne.com/grain/>

GRAIN2

Greener Aeronautics International Networking-2

2013-10-01 to 2016-05-31

<http://www.cimne.com/grain2/>

EU-CHINA JOINT RESEARCH PROJECTS IN FP7

Through the support actions, technical expert groups identified technology areas and specific topics of mutual interest which were selected for the coordinated call under FP7 after consultations with the European and Chinese stakeholders. The call resulted in two research projects jointly funded by the EU and China.

7.2 million EUR

Joint funding

16 EU partners

9 CN partners

MARS

Manipulation of Reynolds Stress for Separation Control and Drag Reduction

2010-10-01 to 2014-03-31

<http://www.cimne.com/mars/>

COLTS

Casting of Large Ti Structures

2010-10-01 to 2013-09-30

<http://www.birmingham.ac.uk/research/activity/irc-materials-processing/themes/colts/index.aspx>

THE EU-CHINA AVIATION RESEARCH BACKGROUND INFORMATION

Aviation and especially aeronautics constitute an important strategic area of collaboration on research and innovation between the EU and China. Apart from collaborations at bilateral level by European aviation industries with their Chinese partners, aviation research collaboration at the EU level dates back over ten years ago.

The European Commission's DG Research and Innovation (DG RTD) and the Chinese Ministry of Industry and Information Technology have a long-standing cooperation on R&D in the field of aeronautics/aviation through jointly co-funded coordination and support actions¹ as well as research cooperation projects. The EU-China 2020 Strategic Agenda for Cooperation, endorsed by the EU-China Summit in November 2013 in Beijing supported cooperation in aviation, i.e. safety, impact to the atmosphere and cooperation in research and innovation in aviation.

Aviation cooperation was also one of the priority areas agreed at the 1st EU-China Innovation Cooperation Dialogue of 21 November 2013. In consultation with EU and Chinese industry, stakeholders' priorities of common interest are being identified and will result in joint EU-China calls for collaborative research and innovation projects."

With the strong commitment of project partners and government administrations from both sides, the joint support actions and research projects, involving a number of outstanding European and Chinese participants, have witnessed robust development and delivered excellent research results, thus demonstrating as win-win flagship initiatives in this important sector.

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EU Delegation to China Website: www.eeas.europa.eu/delegations/china/index_en.htm

HORIZON 2020 TRANSPORT RESEARCH: <http://www.transport-research.info/>

MINISTRY OF INDUSTRY AND INFORMATION TECHNOLOGY (MIIT): www.miit.gov.cn

CHINA-EU S & T COOPERATION IN AVIATION: <http://ch-eu.cae.ac.cn/en/index.aspx>



