



“Key findings and tools – How to better understand and manage aviation noise impact”
H2020 ANIMA final event, Brussels, Belgium, 16 December 2021

The contributions of ANIMA to H2020

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16/12/2021

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- 1. Overview of CINEA**
- 2. CINEA's aviation project portfolio**
- 3. ANIMA's contribution to H2020**
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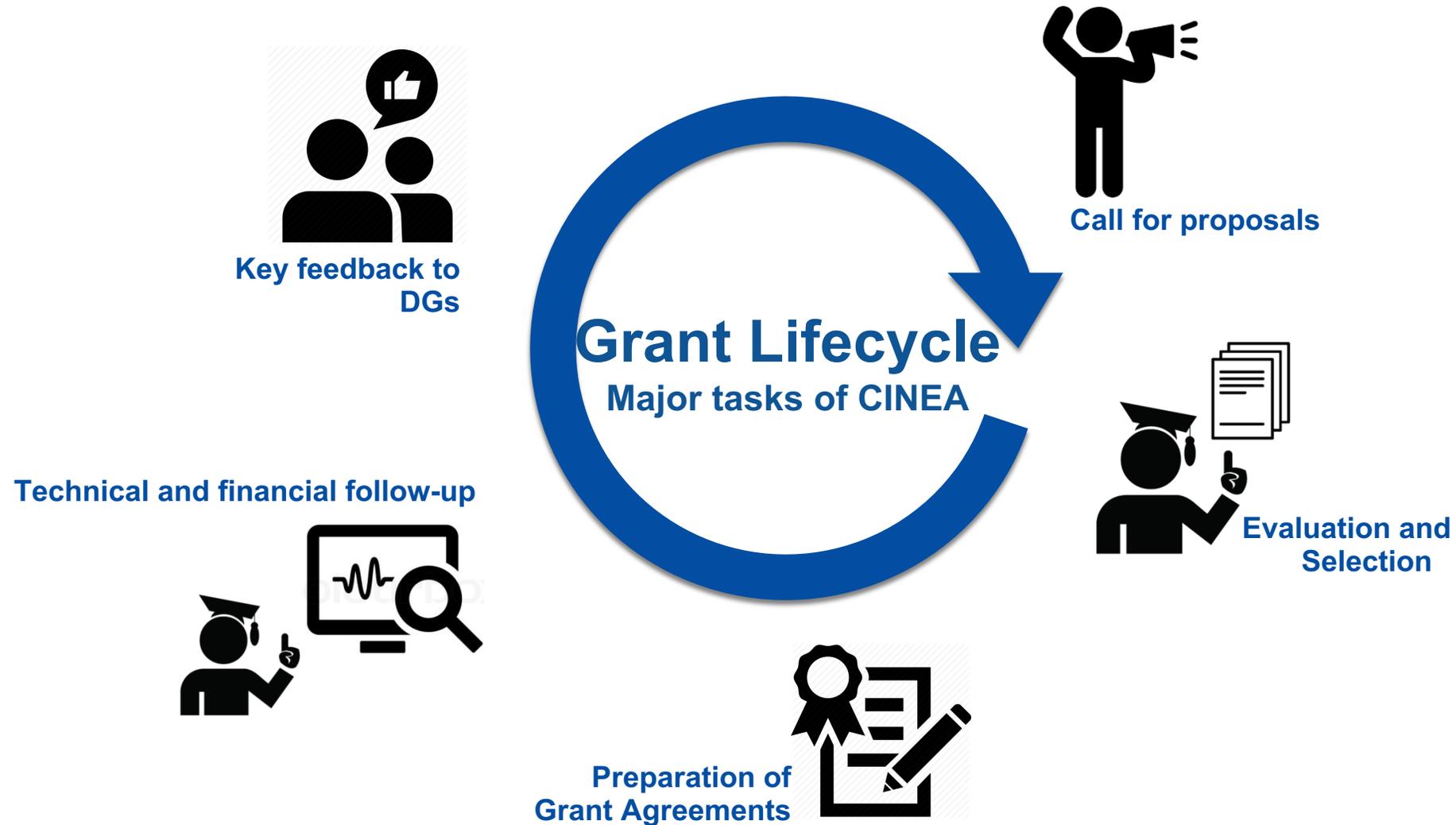
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CINEA: The European Climate, Infrastructure and Environment Executive Agency



- One of the European Commission's 6 Executive Agencies
- Builds on the predecessor agency INEA
- Under the new MFF, CINEA manages a large portfolio of programmes including:
 - Horizon Europe (Cluster 5 Climate, Energy and Mobility)
 - Connecting Europe Facility (CEF) 2
 - Innovation Fund
 - LIFE
- and legacy programmes including:
 - Horizon 2020
 - Connecting Europe Facility (CEF)
- CINEA implements all EU programmes that contribute to the European Green Deal

CINEA's major tasks and role

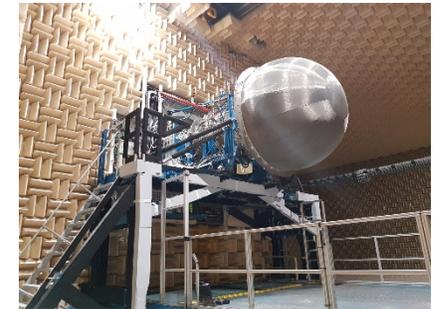


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CINEA's H2020 aviation portfolio

- Total projects: > 100 (finished and ongoing) projects
- Total funding: > € 513 million EU contribution
- Thematic areas covered, include:
 - *Noise and emissions*
 - *Climate impact*
 - *Trajectories and operations*
 - *SAF, hydrogen and electrification*
 - *UAM and drones/UAVs*
 - *Disruptive configurations*
 - *Propulsion and aerodynamics*
 - *Modelling, simulations and MDO*
 - *Safety and structures*
 - *Icing*
 - ...



Horizon Europe calls 2021-2022 – aviation (1/2)

Strategic objectives of aviation topics within **Horizon Europe Cluster 5**:

- Clean and competitive solutions, with increased focus on CO₂ and GHG emission reduction, including aviation noise
- Transformative low-TRL (1-4) technologies, aimed towards climate neutrality by 2050 and digital transformation
- Complementary with European Partnership for Clean Aviation (Clean Sky 2) and European Partnership for Integrated Air Traffic Management (SESAR)

Horizon Europe calls 2021-2022 – aviation (2/2)

Call deadline on 12 January 2022:

- HORIZON-CL5-2022-D6-01-07: *More resilient aircraft and increased survivability*

Call deadline on 26 April 2022:

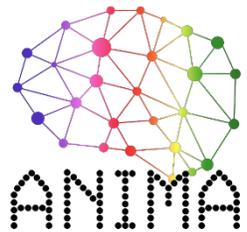
- **HORIZON-CL5-2022-D5-01-12: *Towards a silent and ultra-low local air pollution aircraft***
- HORIZON-CL5-2022-D5-01-13: *Digital aviation technologies for new aviation business models, services, emerging global threats and industrial competitiveness*
- **HORIZON-CL5-2022-D5-01-14: *European Aviation Research Policy in support to EU policies and initiatives***

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Complementary projects funded in MG-1-2-2017

WP 2016-2017 – topic MG-1-2-2017: “*Reducing aviation noise*”



Aviation Noise Impact Management through Novel Approaches



Aircraft noise Reduction Technologies and related Environmental iMpact



RegUlation and norM for low sonic Boom LEvels

H2020 topic MG-1-2-2017 (1/2)

WP 2016-2017 – topic MG-1-2-2017: “Reducing aviation noise”

Main challenges to address (non-exhaustive list):

Proven adverse effects of aircraft noise on quality of life and public health

Despite significant progress on noise reduction at source and on noise abatement procedures, more systematic approaches to aviation noise management are necessary

To ensure that airports will have the capability to accommodate future growing demand

Stronger coordination is required between national, international and EU research activities

Scope (non-exhaustive list):

Actions should address the development of new technologies and methodologies to enable 24/7 operations, including new methods for assessing, monitoring and managing the impact of aviation noise. They should also support the coordination of national and EU research activities related to aviation noise...

H2020 topic MG-1-2-2017 (2/2)

WP 2016-2017 – topic MG-1-2-2017: “Reducing aviation noise”

Expected Impact to be achieved (non-exhaustive list):

- *Holistic approaches for aviation noise reduction*
- *Easy-to-use decision support systems*
- *European noise impact modelling tools, open for research and policy purposes*
- *Gathering critical mass on a pan-European scale, overcoming gaps, duplication and fragmentation*
- *Contributing to the improvement of health conditions of the population as well as to economic activities linked to sustainable airport development plans*

ANIMA highlights and achievements

- Assessment of best practices and recommendations for airports, towards management of noise regulations and annoyance
- Improved understanding of annoyance and related non-acoustical factors
- Development of tools to test and evaluate noise scenarios around airports
- Coordination of European R&I on aviation noise and recommendations to policy-makers

ANIMA highlights and achievements

- Assessment of best practices and recommendations for airports, towards management of noise regulations and annoyance
 - Improved understanding of annoyance and related non-acoustical factors
 - Development of tools to test and evaluate noise scenarios around airports
 - Coordination of European R&I on aviation noise and recommendations to policy-makers
- ➔ **ANIMA has successfully contributed to the H2020 work programme and to topic MG-1-2-2017: “*Reducing aviation noise*”**

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Conclusions

- CINEA supports the implementation of ANIMA, along with a broad portfolio of other aviation projects funded within H2020 and Horizon Europe
- ANIMA was funded, along with complementary projects ARTEM and RUMBLE, within topic MG-1-2-2017: “Reducing aviation noise”
- ANIMA has achieved its overall R&I objectives
- ANIMA has successfully contributed to the call topic and the H2020 work programme

Open questions

Main aviation noise challenges remain more relevant than ever:

- Expected air traffic growth and need for airport expansion
- Proven health impact and annoyance due to aviation noise
- Public awareness of aviation noise (and of aviation's environmental impact in general)
- Severe regulatory context

Open questions

Main aviation noise challenges remain more relevant than ever:

- Expected air traffic growth and need for airport expansion
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 - Public awareness of aviation noise (and of aviation's environmental impact in general)
 - Severe regulatory context
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- **How will you maximise the exploitation of ANIMA's tools and outputs?**
 - **How will you continue addressing the aviation noise R&I challenges beyond ANIMA?**
 - **How can the EU aviation R&I community achieve wider impact on aviation noise issues, also within the strive towards greener and more sustainable aviation?**

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Thank you!



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Look for CINEA!



https://cinea.ec.europa.eu/index_en