

# GARTEUR: NEARLY HALF A CENTURY OF EUROPEAN COLLABORATION IN AERONAUTICS

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- Introduction
- Mission, Objectives and Vision of GARTEUR
- Organisation
- GARTEUR and the international aeronautical R&T scene
- GARTEUR's action zone
- Fields of scientific and technical activities
- Conclusions

- The *Group for Aeronautical Research and Technology in EUROpe* (GARTEUR) is the only framework for both civil and military R&T collaboration in the field of aeronautics in Europe.
- It is a government-to-government agreement between: France, Germany, Italy, the Netherlands, Spain, Sweden and the United Kingdom.



The European aviation and technology sector is currently confronted with various urgent internal and external mainstreams that will see developments:

- in the field of Environment,
- in the field of Defence and Security (e.g. cyber, UAV's, space), and
- in the field of Mobility.

In addition, in 2020 we have been confronted by the Corona-virus.

GARTEUR member countries may benefit from having a consolidated collaboration platform that:

- covers both Civilian and Military topics, at several managerial and TRL levels
- includes people from Academia, Research Institutes, Defence and Industry.

Considering the Mission of GARTEUR:

*‘...to mobilise, for the mutual benefit of the GARTEUR member countries, their scientific and technical skills, human resources and facilities in the field of aeronautical research and technology...’*

it can provide added value for all partners, both in a coordinating role for collab. research and at a technical level to jointly execute research not (yet) covered in other ways.

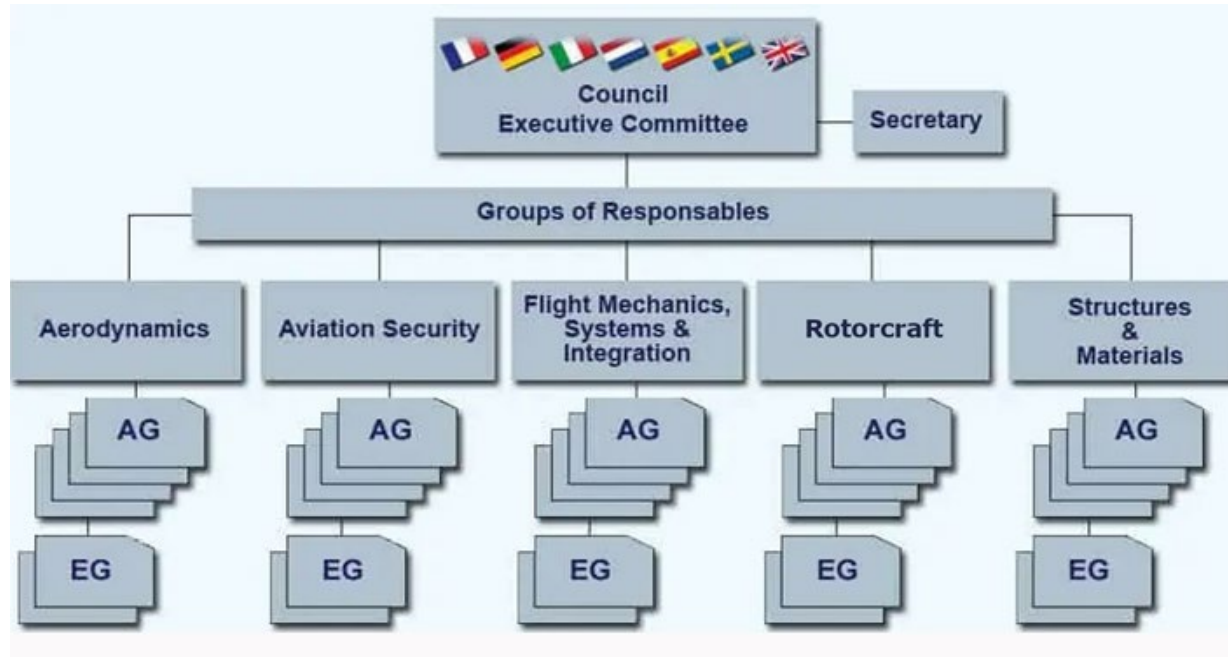
For the next 5 years, GARTEUR will continue to:

- actively focus on bringing added value to its network in a coordinating role for its research, as well as in executing technical research.
- be ever more inclusive so that future generations will take the future of aviation in their own hands.
- continuously stimulate achievements in the aeronautical sciences and pursue topics of application-oriented research.

These objectives are accomplished by:

- performing joint research work in fields suitable for collaboration and within research groups specifically established for this purpose.
- identifying technology gaps and facility needs -> leading to recommendations to the member countries.

GARTEUR is organised according to the following three main levels



GARTEUR actions are aimed to support the European aeronautical community, both in the civil and in the defence domain. Hence, GARTEUR directly or indirectly interacts with other entities or fora, such as:

- the *European Union*,
- the *Association of European Research Establishments in Aeronautics* (EREA),
- the *European Defense Agency* (EDA),
- the *Advisory Council for Aviation Research and Innovation in Europe* (ACARE).

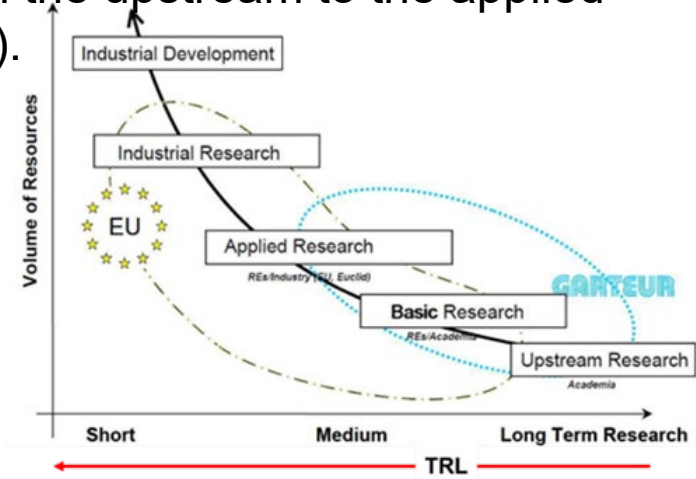
Members of GARTEUR are heavily involved with these entities and fora and this ensures that GARTEUR's research interests are strategically aligned with the various strategic agendas, ensuring that GARTEUR remains focused and committed to the major challenges being addressed by pan-European aerospace research and innovation, both in the civil and defence domain.



The five GARTEUR Groups of Responsables (GoRs):

- facilitate and deliver vital research in the field of aeronautics.
- monitor and encourage the progress of Action Groups (AGs) and Exploratory Groups (EGs).
- aid potential research consortia by critically reviewing their proposed research objectives and methodologies.

The activities promoted by GARTEUR span from the upstream to the applied medium- to long-term research (TRL from 1 to 3).



Over nearly 50 years of its existence, GARTEUR has developed an extensive research and technology portfolio delivering a wealth of leading-edge projects. Research has traditionally focused on early stage, low TRL technologies, guided by the wider European priority research areas as set out in the strategic research agendas of ACARE and EDA.

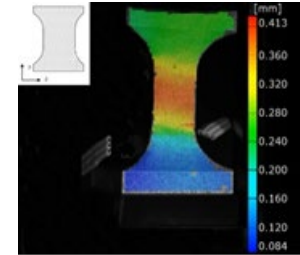
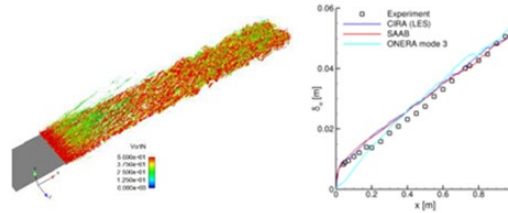
The need for GARTEUR to produce technical achievements in line with the demands from the society it has to serve, requires a constant update, or even reinvention, of the Technical Groups involved at different levels:

- periodic SWOT analysis to prioritise the activities in the current technology and research mainstreams (38 topics).
- systematic review of the relevance of the work being investigated in the Action Groups, Exploratory Groups or EU collaborations to the wider GARTEUR strategy, in addition to identifying links and interdependency between projects.

An overview of the activities that are executed in the Action Groups that operate under the supervision of the five Groups of Responsables in GARTEUR, is given in the paper. More details are provided in the individual papers (sessions 5.1 and 5.2).

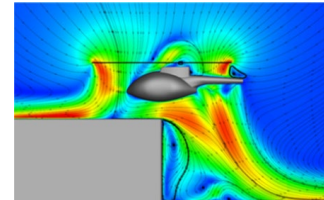
## Session 5.1

- Aerodynamics (AD)
- Structures and Materials (SM)



## Session 5.2

- Flight Mechanics, Systems and Integration (FM)
- Rotorcraft (RC)
- Aviation Security (AS)



- GARTEUR is a multinational organisation that performs high quality, collaborative, pre-competitive research in the field of aeronautics by research establishments, industry and academia.
- GARTEUR provides a very useful platform and network for scientists from research establishments, industry and academia to pool technology and knowledge in order to develop ideas and concepts in various aeronautical areas.
- Improvements to GARTEUR's performance and efficiency are continuously pursued in view of the changing aeronautical environment and in order to rise to the occasion of new challenges and unforeseen opportunities.
- GARTEUR will continue to be a watchtower of technology needs in the aeronautics arena and at the same time will provide a technical response for them, in close harmonisation with other R&T initiatives in GARTEUR countries and in Europe.

- I invite you to follow our web site [www.garteur.org](http://www.garteur.org)



where you can find a precious repository of the scientific and technical activities carried out by the Action Groups, confirming the scientific nature of GARTEUR.

- In the coming months you will also find information on our 50<sup>th</sup> anniversary celebrations that will take place in 2023.
- Thank you for your attention!