



## IFAR – International Forum for Aviation Research

### Summit Declaration 2019

**23 – 26 September 2019, Amsterdam, the Netherlands**

17 member organizations of the **International Forum for Aviation Research (IFAR)** gathered for the 10<sup>th</sup> “**IFAR Summit**” from 23 to 26 September 2019 in Amsterdam. This annual gathering of members was hosted by **Royal Netherlands Aerospace Centre (NLR)** on the occasion of its centennial anniversary.

IFAR is the world’s only aviation research establishment network, established on a voluntary, non-binding basis. IFAR aims to connect public aeronautics research organizations worldwide, to enable information exchange and communication on aviation research activities and to develop among its members a shared understanding on challenges faced by the global aviation research community. IFAR member organizations engage in discussions on technical issues to enable bilateral and multilateral international collaboration, and also promote the development of its early career employees. IFAR was formally established by its Charter in 2011. Today, IFAR has 26 member organizations, representing five continents, and approximately 35,000 researchers worldwide.

The 2019 Summit opened with the celebration of IFAR’s 10<sup>th</sup> Anniversary and a recollection on IFAR’s activities and achievements over its first decade. An “IFAR Distinguished Service Award” was established to acknowledge significant contributions made by individual representatives of IFAR member organizations. For this 10<sup>th</sup> anniversary year, 5 individuals from DLR, NLR, JAXA, INCAS and NASA were awarded for their extraordinary contributions made in the past 10 years.

The theme of the Summit was “Zero Emissions in 2050”, an important topic for the third era of aviation. The discussions were focused on the pursuit of emission-free aviation by 2050, a serious challenge for which radical innovation is needed. Whether it concerns energy carriers, noise or design, the challenges for the research institutions are cross-border. Two round table discussions with IFAR members, industry guests and policy experts were organized to exchange thoughts about timelines of key enabling technologies and major milestones toward zero-emissions aircraft. IFAR members expressed their intention to join forces on sustainability in aviation by the middle of 2020.

The Summit endorsed the reports and the work plans of IFAR’s technical and non-technical working groups and initiatives, e.g. on noise, supersonic aircraft, ATM, aircraft design, UAM, electric hybrid propulsion, computational fluid dynamics, efforts to create database on IFAR members’ test facilities, and empowering early career employees. Several technical workshops will be hosted by members over the next year to intensify the information exchange amongst experts and IFAR young researchers. IFAR also continues its collaboration with international partners, and will be showcased at the 32nd Congress of the International Council of the Aeronautical Sciences (ICAS) in Shanghai, where the contributions of IFAR members towards “Zero Emissions in 2050” will be presented, and the winner of the 3rd ICAS-IFAR Award (which honors an individual who has made a significant contribution to Aeronautical Science within his/her doctoral thesis - PhD or equivalent) to CSIR-NAL will be granted.

At the conclusion of the IFAR Summit, the biannual rotation of the IFAR Leadership Team (LT) took place. The Chair of IFAR, **Royal Netherlands Aerospace Centre (NLR-Netherlands)**, represented by Mr.

Michel Peters, handed over its position as Chair to assume the position of Past Chair. The **Central AeroHydrodynamic Institute** (TsAGI-Russia) and Prof. Sergey Chernyshev assumed the position of IFAR Chair for the next two years. **National Research Council** (NRC-Canada) represented by Dr. Ibrahim Yimer was elected to serve as the new IFAR Vice-Chair. After serving for 6 years as a member of the LT, **Japan Aerospace Exploration Agency** (JAXA-Japan), represented by Dr. Hisashi Sano, handed over its position of the Past Chair to NLR.

Looking ahead, the 11<sup>th</sup> IFAR Summit with the theme, *Enabling the Future – Certification and Regulation*, will be hosted by NRC in November 2020 in Ottawa, Canada.

The Summit endorsed **Polish Institute of Aviation** (ILOT-Poland), as the host of the IFAR Summit in 2021 on the occasion of its 95<sup>th</sup> anniversary. In 2022, **Czech-Aeronautical Research and Test Institute** (VZLU-Czech Republic) will act as the summit host on the occasion of its 100th anniversary. **Italian Aerospace Research Centre** (CIRA-Italy) confirmed its intention to host the IFAR Summit in 2023.

More information on the IFAR Summit 2019 in Amsterdam as well as further information on IFAR is available at <http://www.ifar.aero>, and <https://www.nlr.org/news/ifar-2019/>.

IFAR member organizations represented at the IFAR Summit 2019:

1. Budapest University of Technology and Economics (BME), Hungary
2. Central AeroHydrodynamic Institute (TsAGI), Russia
3. Italian Aerospace Research Centre (CIRA), Italy
4. Chinese Aeronautical Establishment (CAE), China
5. Czech-Aeronautical Research and Test Institute (VZLU), Czech Republic
6. French Aerospace Lab (ONERA), France
7. German Aerospace Center (DLR), Germany
8. Japan Aerospace Exploration Agency (JAXA), Japan
9. Korea Aerospace Research Institute (KARI), Korea
10. Royal Netherlands Aerospace Centre (NLR), Netherlands
11. National Institute of Aerospace Research “Elie Carafoli” (INCAS), Romania
12. National Aeronautics and Space Administration (NASA), USA
13. National Research Council (NRC), Canada
14. Polish Institute of Aviation (ILOT), Poland
15. Swedish Defense Research Agency (FOI), Sweden
16. Vienna University of Technology (TU Wien), Austria
17. Von Karman Institute for Fluid Dynamics (VKI), Belgium