ICAS: Bringing Thought Leaders Together

Dimitri Mavris, President 12 September 2023



Foundation & History



 The origins of ICAS started after World War II and at the beginning of the Cold War with individuals who shared a commitment to fostering a better understanding among nations of the world



Theodore von Kármán

Mathematician, engineer,
physicist, aeronautical
research leader



Harry Guggenheim Industrialist, philanthropist, diplomat, and aviator

Foundation & History



- In the initial meeting to discuss forming an international congress, von Kármán suggested that representatives of aeronautical societies in nine countries be invited to consider the possibility.
- From the start, ICAS was a collaborative and inclusive endeavor, even at a time of political and military tension between countries of NATO and the Warsaw pact.
- ICAS was formed as an organization in 1957 to plan the first Congress in 1958 in Madrid.

ICAS Today: Covering the World of Aeronautics





Global Network: Member Societies

























































Global Network: Associate Members





ICAS' Current Role



- ICAS currently serves as the only world-wide supernational organization to represent aeronautical engineering professional societies and associated organizations and their members in 32 countries
- ICAS provides:
 - The forum for thought leaders in aeronautics through its biennial Congress & Emerging Technologies Forum
 - A global network through member societies and associate members
 - Advancement through collaboration with likeminded international organizations
 - Recognition through prestigious awards

Forum for Thought Leaders



- ICAS holds a biennial congress in even years in September
 - Event brings together the global aeronautical community
 - Covers both programmatic and technical topics and highlights key opportunities and challenges for the aviation industry
 - Member Societies bid to host the Congress in their countries
- In odd years, the ICAS Programme Committee that plans the Congress technical program meets in other member countries
 - In conjunction with the PC meeting, ICAS holds its **Emerging Technology Forum**, which gathers experts from all over the world in the field to exchange views and to identify further areas of potential cooperation in specific emerging areas

ICAS Congresses



| 1958 | Spain - Madrid | 1992 | China - Beijing |
|------|-----------------------------|------|----------------------------|
| 1960 | Switzerland - Zurich | 1994 | United States - Anaheim |
| 1962 | Sweden - Stockholm | 1996 | Italy - Sorrento |
| 1964 | France - Paris | 1998 | Australia - Melbourne |
| 1966 | United Kingdom - London | 2000 | United Kingdom - Harrogate |
| 1968 | Germany - Munich | 2002 | Canada – Toronto |
| 1970 | Italy - Rome | 2004 | Japan – Yokohama |
| 1972 | The Netherlands - Amsterdam | 2006 | Germany – Hamburg |
| 1974 | Israel - Haifa | 2008 | United States - Anchorage |
| 1976 | Canada – Ottawa | 2010 | France - Nice |
| 1978 | Portugal – Lisbon | 2012 | Australia – Brisbane |
| 1980 | Germany – Munich | 2014 | Russia – St. Petersburg |
| 1982 | United States – Seattle | 2016 | Korea - Daejeon |
| 1984 | France – Toulouse | 2018 | Brazil – Belo Horizonte |
| 1986 | United Kingdom – London | 2021 | China – Shanghai |
| | Israel – Jerusalem | 2022 | Sweden –Stockholm |
| 1990 | Sweden – Stockholm | 2024 | Italy - Florence |
| | | | |

ICAS Workshops/Emerging Technologies Forums



- **2003 Italy Sorrento** *Towards a Global Vision for Aeronautics*
- **2005 Greece Mykonos** *Towards a global vision for Aviation Safety and Security*
- **2007 Spain Seville**UAV Airworthiness certification and access to the airspace
- **2009** The Netherlands Amsterdam *Aviation and Environment*
- **2011 Sweden Stockholm** *Advanced materials & manufacturing Certification & Operational Challenges*
- **2013 South Africa Cape Town** *The More Electrical Aircraft: Achievements and perspectives for the future*
- **2015 Poland Krakow** *Complex Systems Integration in Aeronautics*
- **2017 Switzerland Winterthur** *Intelligent and Autonomous Technologies in Aeronautics*
- **2019 Australia Melbourne** *Digital Transformation in Aerospace*
- **2023 Japan Kyoto** *Future Air Mobility Barriers and Enablers*

Objectives for ICAS Events



- Present useful, high-quality work from world-wide research and technology organizations to all interested engineers and scientists
- Facilitate the exchange of ideas, information, and understanding about the body of aeronautics knowledge among the international community so that important research can proceed rapidly
- Expose the global research community to challenges and issues through lectures by leading experts in aeronautics and related technologies
- Provide a global platform for early career professional and students to begin to develop an international network of colleagues
- Create a vibrant international network that produces increased understanding, appreciation, and tolerance among participants

ICAS Evolution



- While ICAS has adhered to the original guiding principles, the organization has evolved and grown since 1957 as the aviation industry has expanded and technology has advanced.
- We are continually looking to enhance our activities and the value we provide to our members and the larger global aeronautical community.
- Events like this ETF underscore the role of ICAS in advancing the state of the art of aeronautics.
- As it has done since its foundation, ICAS addresses the critical issues facing the aviation industry.
- Increasingly, we want our network to prompt new research activities and collaborations

ICAS Emerging Technology Forum 2023



- The catchphrase for this ETF is "Barriers and Enablers"
- The aim of ICAS is to shine a light on this exciting, emerging area of aeronautics
 - To bring a diverse set of experts together
 - To clarify areas where further R&D is needed
 - To identify technology spin-offs for other applications
 - To assist in network-building for these purposes
 - To identify skills needed in this sector
 - To share the developments in this exciting sector with the broadest community possible
- As a global forum for our community, ICAS is the best place to address and resolve these issues
- Let's work together to chart a course for the future!