



COUNCIL OF EUROPEAN AEROSPACE SOCIETIES

CEAS



3AF - AIAE - AIDAA- AAAR-DGLR - FTF - HAES - NVvL- RAeS - SVFW - TsAGI - PSAA - CZAeS



CEAS in brief

Fred Abbink
CEAS President

Jan 2016



- 1. CEAS History**
- 2. CEAS Member Societies**
- 3. CEAS Objectives and Organisation**
- 4. International Cooperation**
- 5. CEAS Activities**
- 6. Conclusions**

- In the mid 1980s Europe's main professional aerospace societies recognized the increasing importance of **European aerospace business** and the strength of the **European industry alliances** and decided to develop close working relationships
- This culminated in the formation of the **Confederation of European Aerospace Societies (CEAS)**. The official signing of the CEAS Constitution was at the 1993 Paris Airshow



- In 2003, the 8 Constituent Societies realized that a deeper collaboration was necessary, which would provide CEAS with a legal status and more flexible resources. The official signing was in 2005 in Hamburg
- The new status transformed the former Confederation into a **Council of European Aerospace Societies** (CEAS) and gave CEAS legal support under Belgian law



- At present CEAS comprises the 13 National Aerospace Societies:



3AF



HAES



AIAE



NVvL



AIDAA



RAeS



AAAR



SVFW



DGLR



TsAGI



FTF



PSAA



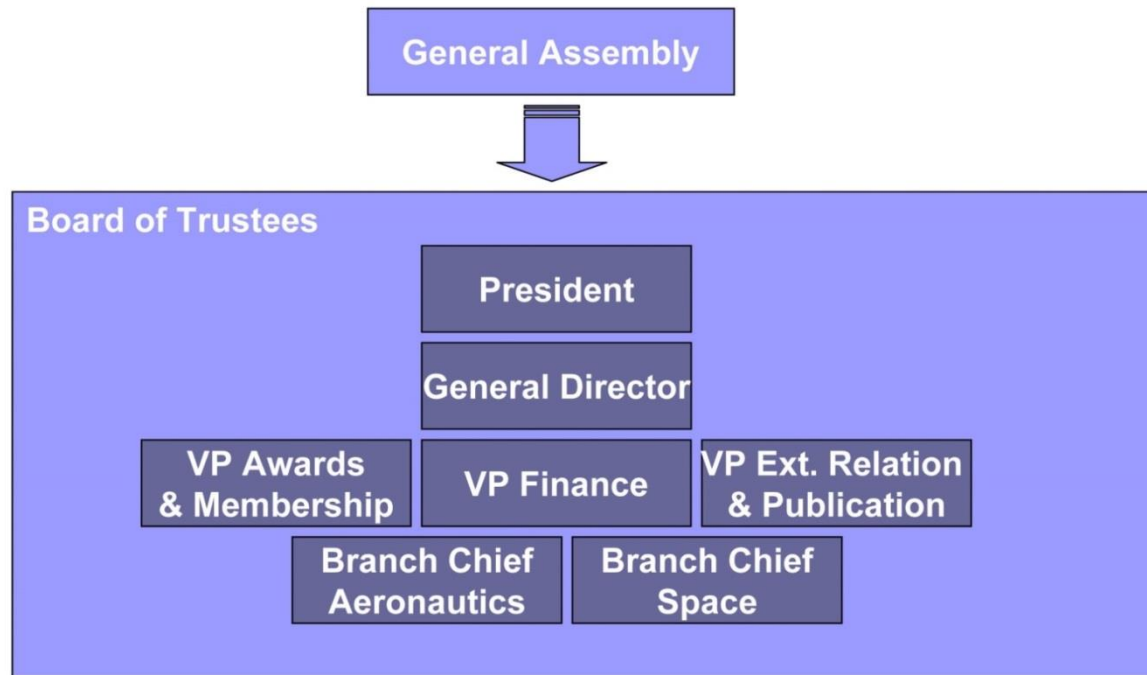
CZAeS

Society	Founded	Members
RAES (UK)	1866	20.000
DGLR (DE)	1912	2700
TsAGI (RU)	1918	4400
AIDAA (IT)	1920	260
AIAE (ES)	1928	2545
FTF (SE)	1933	1675
NVvL (NL)	1941	350
AAAF (FR)	1945	1500
SVFW (CH)	1957	250
HAES (GR)	1975	365
AAAR (RO)	2006	115
CZAeS (CZ)		
PSAA (PL)	2010	120
Total CEAS	1993	34.280
AIAA (USA)	1933	30.000

- **Associate Members**
 - **Open to European Aerospace Societies, not yet “Trustee Member”, but with the intention of joining the Trustee Members**
- **Corporate Members**
 - **Any other public or private entity, as willing to support CEAS**
 - **ESA**
 - **EASA**
 - **Von Karman Institute**
 - **EUROAVIA**



- **Conducting integrated programs consisting of specialized and interdisciplinary meetings, dissemination of research and publication of scientific and technical information,**
- **Encouraging international cooperation through the creation of committees, task forces and study groups, and the promotion of joint activities with other national and international organisations in aeronautics and astronautics and allied fields**
- **Publishing CEAS journals and newsletter, as well as books, proceedings and papers dealing with aeronautics and astronautics**
- **Recognizing outstanding contributions to aeronautics & astronautics by bestowing awards and honours on the contributors**
- **Effecting cooperation with organizations chartered for similar purposes**



- **President: Fred Abbink**
 - f.j.abbink@planet.nl
- **Vice-President Finance: Cornelia Hillenherms**
 - Cornelia.Hillenherms@dlr.de
- **Vice-President Publications and External Relations: Pierre Bescond**
 - pierre.bescond@laposte.net
- **Vice-President Awards and Membership: Kaj Lundahl**
 - klundahl@bredband.net
- **Director General: Mercedes Oliver Herrero**
 - Mercedes.oliver@military.airbus.com
- **Chairman of Aeronautics Branch: Christophe Hermans**
 - Christophe.Hermans@dnw.aero
- **Chairman of Space Branch: Constantinos Stavriniadis**
 - constantinos.stavriniadis@esa.int

- 2000-2002 Joachim Szodruch (DGLR)
- 2003 Fedde Holwerda (NVvL)
- 2004-2006 Julian Simon Calero (AIAE)
- 2007 Colin Terry (RAeS)
- 2008 Georges Bridel (SWFW)
- 2009-2010 Joachim Szodruch (DGLR)
- 2011-2012 Pierre Bescond (3AF)
- 2013 David Marshall (RAeS)
- 2014-2016 Fred Abbink (NVvL)

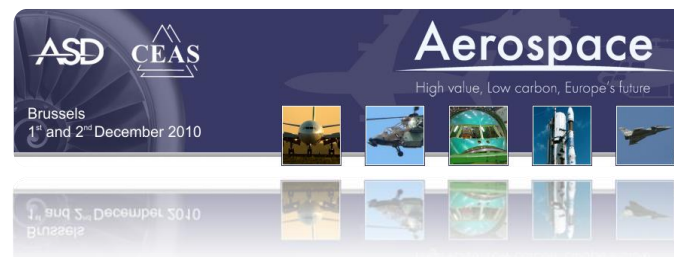
CEAS reaches its objective,
“to promote international cooperation through Memoranda of Understanding” with:

- The International Council for the Aeronautical Sciences (ICAS)
- The American Institute for Aeronautics and Astronautics (AIAA)
- The (French) Air and Space Academy (AAE)
- The Chinese Society of Aeronautics (CSA)
- The Korean Society for Aeronautical and Space Science (KSAS)
- The association of European Research Establishments in Aeronautics (EREA)

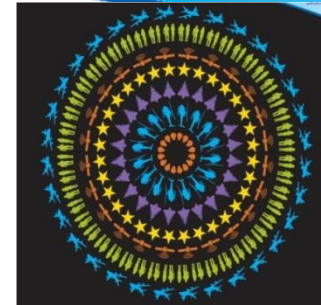


CEAS reaches it's objective,
*“to promote the interest of the constituent societies on a European scale
 and European aerospace activities internationally”,*
 through organizing:

- Knowledge transfer through organizing technical workshops and symposia,
- European Conferences dealing with specific disciplines and the broader technical aspects,
- Political and technical Biennial European Conferences (Europe – Air & Space)



- 2007 Berlin
- 2009 Manchester
- 2010 Brussels (ASD-CEAS)
- 2011 Venice
- 2013 Linköping
- 2015 Delft





CHALLENGES IN EUROPEAN AEROSPACE

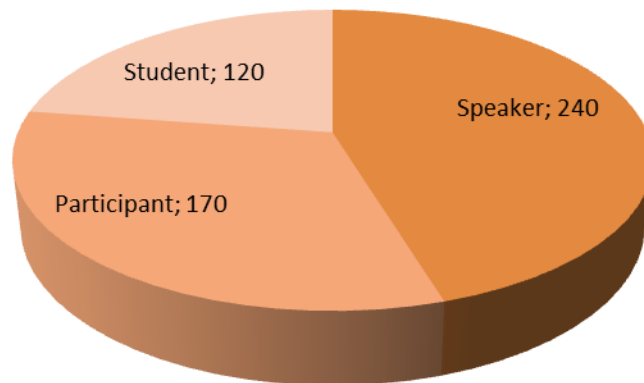
5TH CEAS AIR & SPACE CONFERENCE



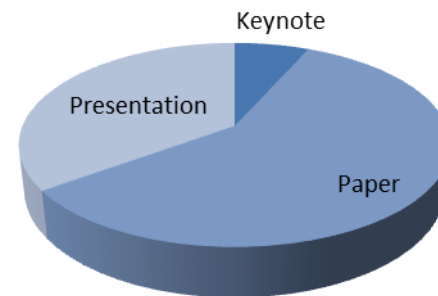
CEAS 2015 Conference highlights in brief

- 530 delegates (90% European) attended the event on one or more days from 40 nations all over the world
- reception in the Delft Botanic Gardens
- 200 delegates attended the dinner at the paddle steamer "De Majesteit" while cruising the impressive Rotterdam harbors. During the tour through the harbor Prof Joachim Szodruch was presented the CEAS Gold Award
- 240 speakers presented (16 keynote plenaries, 140 scientific papers, 111 of which dealt with aeronautics and 29 with space related subjects)
- 40 session chairs
- 3 EU project workshops (AFLonext, IN2SAI, PulCheR) and European Strategic Wind tunnels Improved Research Potential ESWIRP achievements presentations (follow the links to get access to the presentations)
- 12th European Workshop on Aircraft Design Education EWADE meeting
- 75 participants to 4 technical tours to major R&D centers (EAS-ESTEC and NLR), the TUDelft and aerospace industry (Fokker Aerostructures).
- 14 exhibitors participated

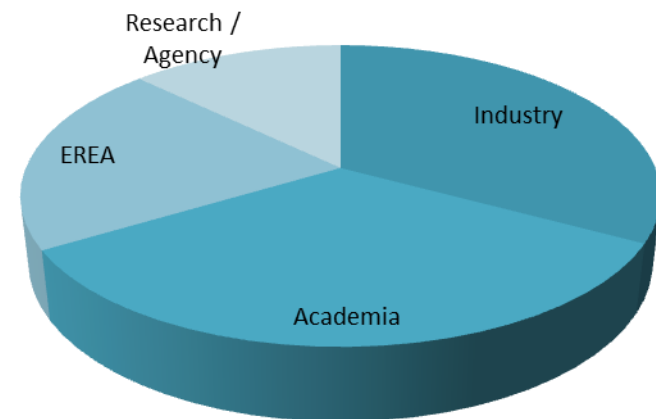
CEAS 2015 delegates: 530



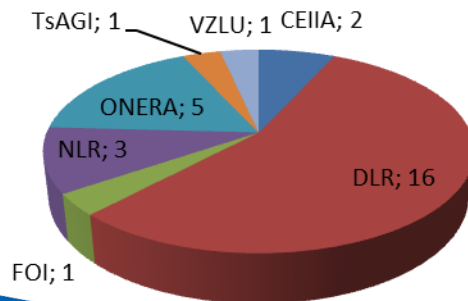
Speakers per contribution



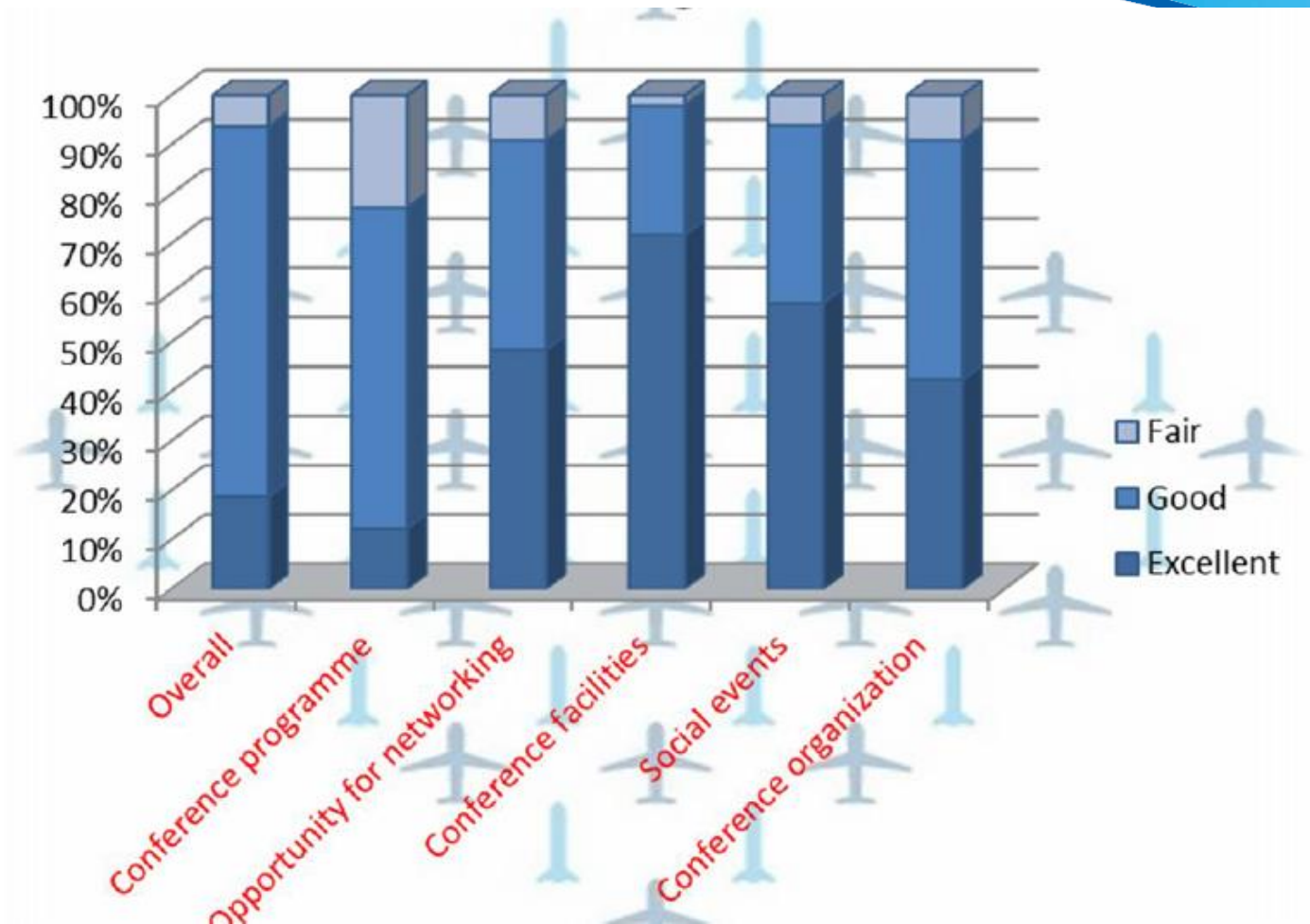
Papers per sector: 140



EREA papers: 29



CEAS 2015 Delegate Feedback



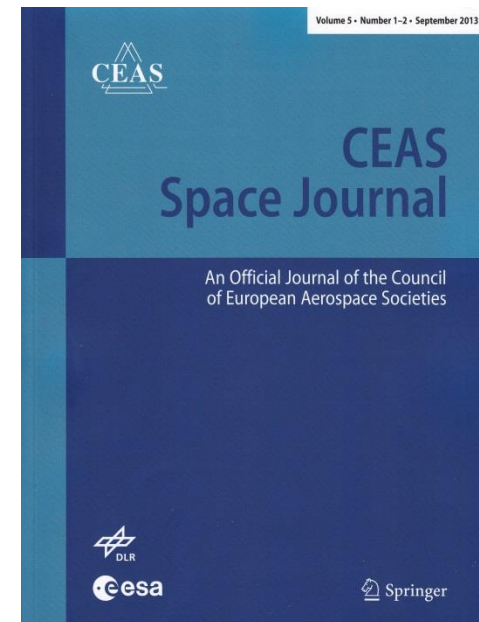
CEAS reaches its objective,

“Publishing CEAS journals and newsletter, as well as books, proceedings and papers dealing with aeronautics and astronautics” through

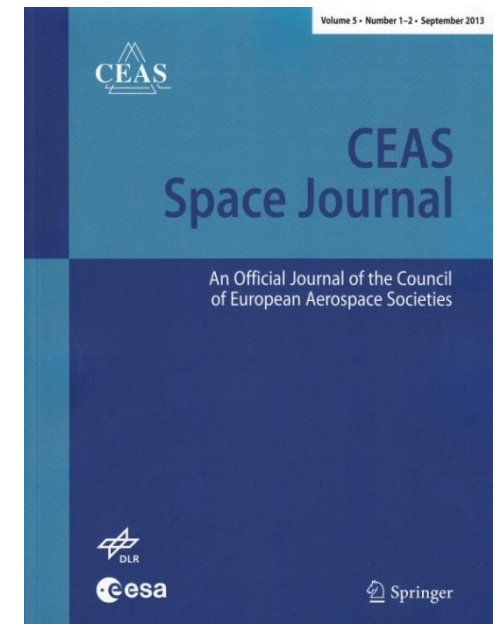
- Position/ discussion papers on key issues,
- Quarterly Bulletins reporting on and advertising activities
- Peer reviewed Professional Scientific/Technical Journals,
 - CEAS Aeronautical Journal
 - CEAS Space Journal



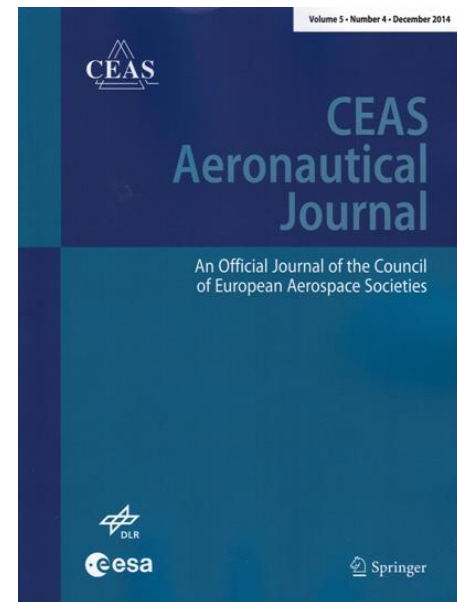
- CEAS Space Journal is devoted to publishing new developments and results in all areas of space-related science and technology including important spin-off capabilities and applications as well as ground-based support systems and manufacturing advancements
- It provides in-depth reviews of status of development in specific areas of relevance to space, and descriptions of potential way forward
- Typical disciplines of interest include mission design and space systems, physical fluid dynamics, materials, aerothermodynamics, environmental conditions and life support systems, Guidance, Navigation and Control systems, propulsion, power, robotics, structures, testing and thermal control



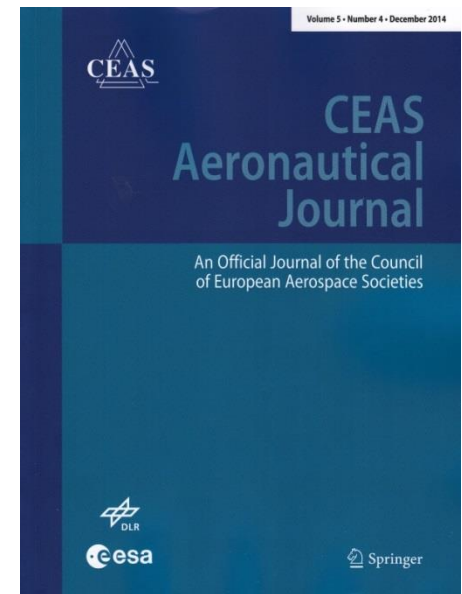
Year	Nr Issues	Nr Articles
2011	2	19
2012	2	8
2013	3	25
2014	3	15
2015	4	34



- CEAS Aeronautical Journal is devoted to publish new developments and results in all areas of aeronautics-related science and technology
- Of interest are (invited) in-depth reviews of status of development in specific areas of relevance to aeronautics, and descriptions of potential way forward
- Topics of the journal are aero-acoustics, aero-elasticity, air transport system, air traffic management, flight mechanics, flight physics/aerodynamics, propulsion, structures and materials, rotorcraft, missiles and UAVs



Year	Issues	Nr Articles
2011	2	34
2012	2	13
2013	4	36
2014	4	38
2015	4	45



List of CEAS Space Branch Technical Committees

- Structures
- Thermal
- ECLS
- Mechanisms
- Robotics
- Propulsion
- Aerothermodynamics
- Guidance Navigation and Control
- Power
- Mission design and space systems
- Satellite Communications
- Materials



→ 15th EUROPEAN SPACE MECHANISMS
& TRIBOLOGY SYMPOSIUM



25-27 September 2013
DeMuzie Theatre
Noordwijk, The Netherlands
www.esmats.eu



List of Aeronautical Branch Technical Committees

- **Aero acoustics**
- **Rotorcraft**
- **Aero elasticity & structural dynamics**
- **Guidance, Navigation and Control**
- **Aircraft design**
- **Integrated Air Transport Operations**

List of Aeronautical Branch Networks

- **Air transport system**
- **Avionics**
- **Cabin systems**
- **Flight physics**
- **On-board energy**
- **Propulsion systems**
- **Structural design & materials**
- **Testing / sensors**
- **UAV**



Since 1975, the CEAS Member Societies RAeS, DGLR, AAAF, AIDAA and NVvL have organised the yearly European Rotorcraft Forum ERF. In 1995 Russia joined the ERF:

- **RAeS: 1975, 1980, 1985, 1990, 1996, 2002, 2008, 2014**
- **DGLR: 1976, 1981, 1986, 1991, 1997, 2003, 2009, 2015**
- **AAAF: 1976, 1982, 1987, 1992, 1998, 2004, 2010**
- **AIDAA: 1977, 1983, 1988, 1993, 1999, 2005, 2011**
- **NVvL: 1978, 1984, 1989, 1994, 2000, 2006, 2012**
- **Russia: 1995, 2001, 2007, 2013**

**CEAS reaches it's objective,
*“Recognizing outstanding contributions to aeronautics & astronautics by
bestowing awards and honours on the contributors”***

through:

- **Professional Recognition at a European Level for its members by providing a Directory of European Professionals**
- **Honors and Awards by offering an annual gold medal to recognize outstanding achievements, and medals in technical areas to recognize technical achievement**

- | | |
|-------------------------------|-----------------|
| • 1998 Jean Pierson | France |
| • 1999 Walter Kroell | Germany |
| • 2000 Ralph Robins | United Kingdom |
| • 2001 Paulo Santini | Italy |
| • 2002 Fredrik Engstrom | Sweden |
| • 2003 Richard Case | United Kingdom |
| • 2004 Alvaro Azcarrage | Spain |
| • 2005 Rainer Hertrich | Germany |
| • 2007 David Southwood | United Kingdom |
| • 2008 Jean-Paul Bechat | France |
| • 2009 Carl Peter Fichtmuller | Germany |
| • 2010 Ernesto Valerani | Italy |
| • 2011 Stamatios Krimigis | Greece |
| • 2012 Manfred Fuchs | Germany |
| • 2013 Louis Gallois | France |
| • 2014 Fred Abbink | The Netherlands |
| • 2015 Joachim Szodruch | Germany |





- **EUROAVIA was invited to the Board of Trustees meeting in Amsterdam on April 23rd 2010;**
 - A fruitful discussion followed the presentation by EUROAVIA, the promi scholarships, competitions and other opportunities on student level,
 - A mutual cooperation in European events related to students and young professionals,
 - The possibility to contact CEAS for support for international events,
 - A mutual cooperation to spread EUROAVIA to the remaining universities with the support of CEAS,
 - The use of the extensive network of CEAS and EUROAVIA to establish a better communication and feedback between the student and aerospace industry.
- **EUROAVIA is now a CEAS Corporate Member,**
- **EUROAVIA is invited to all the CEAS Board of Trustees meetings**



CEAS Events 2016 and 2017

Date	CEAS events / conferences / workshops (2016/2017)	Venue
May-16	5 rd Space Propulsion 2016	Rome (I)
Jun-16	22 th AIAA/CEAS Aeroacoustics Conference	Lyon (F)
Nov-16	5 th Symposium on Collaboration in Aircraft Design	
Sep-16	42 nd European Rotorcraft Forum (ERF)	Lille (F)
Oct-16	20 th Aeroacoustics Workshop	
Oct-16	5 th Aircraft Structural Design Conference	Lisbon (Po)
Apr-17	4 th Guidance, Navigation & Control Conference (GNC)	Warsaw (P)
Apr-17	8 th European Workshop on Thermal Protection Systems and Hot Structures	
Jun-17	23 th AIAA/CEAS Aeroacoustics Conference	tbd (US)
Jul-17	18 th International Forum on Aeroelasticity and Structural Dynamics (IFASD)	Como (I)
Sep 17	6th CEAS Air & Space conference	Bucharest (Ro)
Sep-17	43 rd European Rotorcraft Forum (ERF)	
Sep-17	13 th European Workshop on Aircraft Design Education (EWADE 2017)	
Sep-17	17 th European Space Mechanisms and Tribology Symposium ESMATS	
Oct-17	21 st Aeroacoustics Workshop	

In conclusion:

- **CEAS is the initiative of the European professional Aerospace Societies to cooperate towards:**
 - Providing a network of European aerospace professionals
 - Sharing knowledge through general and specialist conferences
 - Publishing a quarterly Bulletin, Journals and Books
 - Cooperation through MOUs with ICAS, AIAA, EREA and other international aerospace organizations
 - Joint recognition of outstanding European Aerospace Professionals
 - Providing support to students and young professionals
- **CEAS maintains strong relations with the EU and its Framework Programmes as Clean Sky and SESAR, and European organisations as ESA, ASD, EDA, ACARE, GARTEUR and EREA**