



# SPACE GENERATION ADVISORY COUNCIL

In Support of the United Nations  
Programme on Space Applications

**SGAC: From UNISPACE III to Today**  
*including*  
**SGAC Origins**  
**SGF 1999 and SGF 2.0 2018**  
**SGFF 2018**  
**SGAC Local/Regional Events**



# SGAC Origins

SGAC is a global *non-governmental, non-profit* organisation and network which aims to represent *university students and young space professionals* ages **18-35** to the United Nations, space agencies, industry, and academia.

Conceived at the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) in Vienna in 1999

“ *To create, within the framework of the Committee on the Peaceful Uses of Outer Space, a consultative mechanism to facilitate the continued participation of young people from all over the world, especially young people from developing countries and young women, in cooperative space-related activities...* ”



# Space Generation Forum 1999

- 203 participants
- 60 countries
- “Represent the voice of the world’s youth at UNISPACE III”
- “Bring their vision and perspective on what should be the focus of space activities in the next century, to the current leaders and decision makers in the space arena, as well as contribute to shaping humankind’s future in outer space.”

Due to its multidisciplinary character, discussions at the Space Generation Forum encompassed the whole field of space activities, including space applications, space research, space education and human space exploration with such key issues including:

- Space Technology in Support of a Sustainable World
- Space Awareness, Outreach and Space Education
- Space Exploration and Use of Outer Space Resources



# Space Generation Forum 1999

## Space Generation Forum Top 10 Recommendations

(5 in **blue** integrated into  
Vienna Declaration of  
UNISPACE III)



1. *A Global Space Education Curriculum*
2. *Priority Access to Mobile Satcom Network for Disaster Emergency Relief*
3. International Space Authority
4. SGF Follow-up
5. Establishment of an International Centre for Space Medicine
6. International Space Chamber of Commerce
7. Action Plan for Meeting the World's Basic Needs through Technology
8. *Nobel Space Prize*
9. *UN Space Youth Advisory Council (YAC)*
10. *Planetary Defense/ Protection*



# Space Generation Forum 2.0

## Attendance:

- Over 100 participants
- 40 nationalities represented
- 40% women 60% men
- Included alumni and founders of SGAC

## Organising Team:

- 12 team members
- 9 nationalities



Space Generation Forum 2.0  
in support of UNISPACE+50

## Scholarships:

- ISS Crew Fund Scholarship (4 winners)

## Working Groups:

1. Working Group 1: Space for Women
2. Working Group 2: Space and the Sustainable Development Goals
3. Working Group 3: Space for Society
4. Working Group 4: Capacity Building in the Space Sector
5. Working Group 5: Building Partnerships and Investment in Space with Industry and the Private Sector
6. Working Group 6: Safety and Reliability for Space and Earth
7. Working Group 7: Space for Global Health



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# Space Generation Forum 2.0

SGAC Conference Room Paper A/AC.105/2018/CRP.16  
entitled: “Recommendations from the Space Generation  
Forum 2.0 and the Space Generation Advisory Council in  
support of UNISPACE+50”



# 7th Space Generation Fusion

- Attendance.
  - 75 delegates (students and young professionals)
  - 16 countries from all across the space sector (NCAC; SA; Europe; AP, and the ME)
  - 75% of them had never attended a Fusion Forum before
- Organising Team:
  - 13 people representing 7 different countries
- Scholarships: (+ 140 % from 2017)
  - Global Grants
  - The Space Fundamentals Training Programme scholarship supported by Lockheed Martin
  - Malisetti Foundation scholarship
  - Brook Owens Programme



SPACE GENERATION  
FUSION FORUM 2018



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# 7th Space Generation Fusion

- Theme: "Into the Mainstream"
- 6 Discussion Tracks:
  - Discussion Track 1: Innovative Influences of Space on Earth
  - Discussion Track 2: Entrepreneurship in the Space Industry
  - Discussion Track 3: Space Tech and Innovation
  - Discussion Track 4: Humans in Space
  - Discussion Track 5: Space Science
  - Discussion Track 6: National Security in International Space



SGFF Video:

<https://youtu.be/0iZmSUOzwiU>



# Zooming in on SGAC Regional

European Space Generation Workshop: “One Space, One Europe”:

Number of delegates: >100

Number of nationalities represented: 23

Male/Female ratio: 59%/41%

Kindly Hosted by:



Faculty of  
**Aerospace  
Engineering**



## Working Groups and Outcomes:

### Group 1: Space & Cybersecurity Space

Reflect on whether data should remain open source or limited in its availability and identify possible technical solutions to counteract the shape and origin of threats to cybersecurity in space.

### Group 2: Space for Society

Addressed the current initiatives regarding spaceflight towards Mars, as well as the habitability of the planet.

### Group 3: Space Exploration

Discuss the extension of the space market to commercial development, and the challenges faced by new stakeholders in the sector when it comes to access to finance and scaling up their activities or products. The presence of more hardware in popular orbits adds to the problem of space sustainability and space debris mitigation, which were touched upon during group discussions.

### Group 4: Emerging Space

Delegates exchanged on how to further support the take-up of satellite based services by users, going beyond to reaching non-space communities, as well as how can space agencies frame their missions to ensure the public perception of their utility, and thus their long-term support.

# Zooming in on SGAC Regional

## European Student Forum 2018:

Number of delegates: >40

## Working Groups and Outcomes:



WG1 - Transforming space dreams into space reality - possibilities to different space careers.

This working group agreed that all personality types are welcome in the aerospace sector, regardless of his education (STEM or ARTS etc). As the whole sector is strongly interdisciplinary, all applicants have the opportunity to reach it's "dream job" in Space. They also emphasized the importance of outreach, as many possible future space leaders simply does not hear about the possibilities of space.

WG2 - How can the aerospace sector guide university students?

This working group delivered a detailed study on the actual status of the students willing to join space research and the companies willing to employ them. They phrased multiple advises towards aerospace companies.

WG3 - Role of the European Commission and the national decision makers in space education?

This working group analyzed national educational programs over Europe. They created a short summary of actionable recommendations for European decision makers and also for national decision makers.

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# Zooming in on SGAC Regional



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# Zooming in on SGAC Local

## SGAC-IAF Seminar at GLAC2018: Space Applications:

Number of delegates: 74

Number of nationalities represented: 13

## Working Groups and Outcomes:

### City Mobility Accessibility

- Attack Social Exclusion problem in a pragmatic approach.
- Problem: Infrastructures, lack of ramps, etc.
- Solution: Assistance—bot with GeoSpatial Information that explode spatial and transport data.

### Group 1: IOT and Agriculture

- Problems: plagues, floods, drought, pesticides, techniques
- Solutions: Sensors + Data + Satellites

### Group 2: Legal and Policy Challenges of Space Applications

- Challenges: No defined space agenda in all governments, lack of resources, more awareness of policy and legal needs
- Solutions: space in university core coursework, regional conferences, scholarships, outreach

### Group 3: Technology Development and Space Applications

- Interoperability between satellites and aerial platforms (i.e. HAPS, UAVs)
- Data usability
- Satellites to influence and predict better weather information

### Group 4: Regional Collaboration in Space Applications

- Challenges: Communication, access, logistics, environmental, asymmetry
- Solutions: Establish more regional events, more regional resource management, intra-regional agreements





# THANK YOU

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