SPACE GENERATION ADVISORY COUNCIL

In Support of the United Nations Programme on Space Applications

SGAC Origins

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

- 160 students and young professionals invited to contribute

- Product of the discussions were the Vienna Declaration where the States resolved

"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…"

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SGAC Network

Number of NPoCs per country
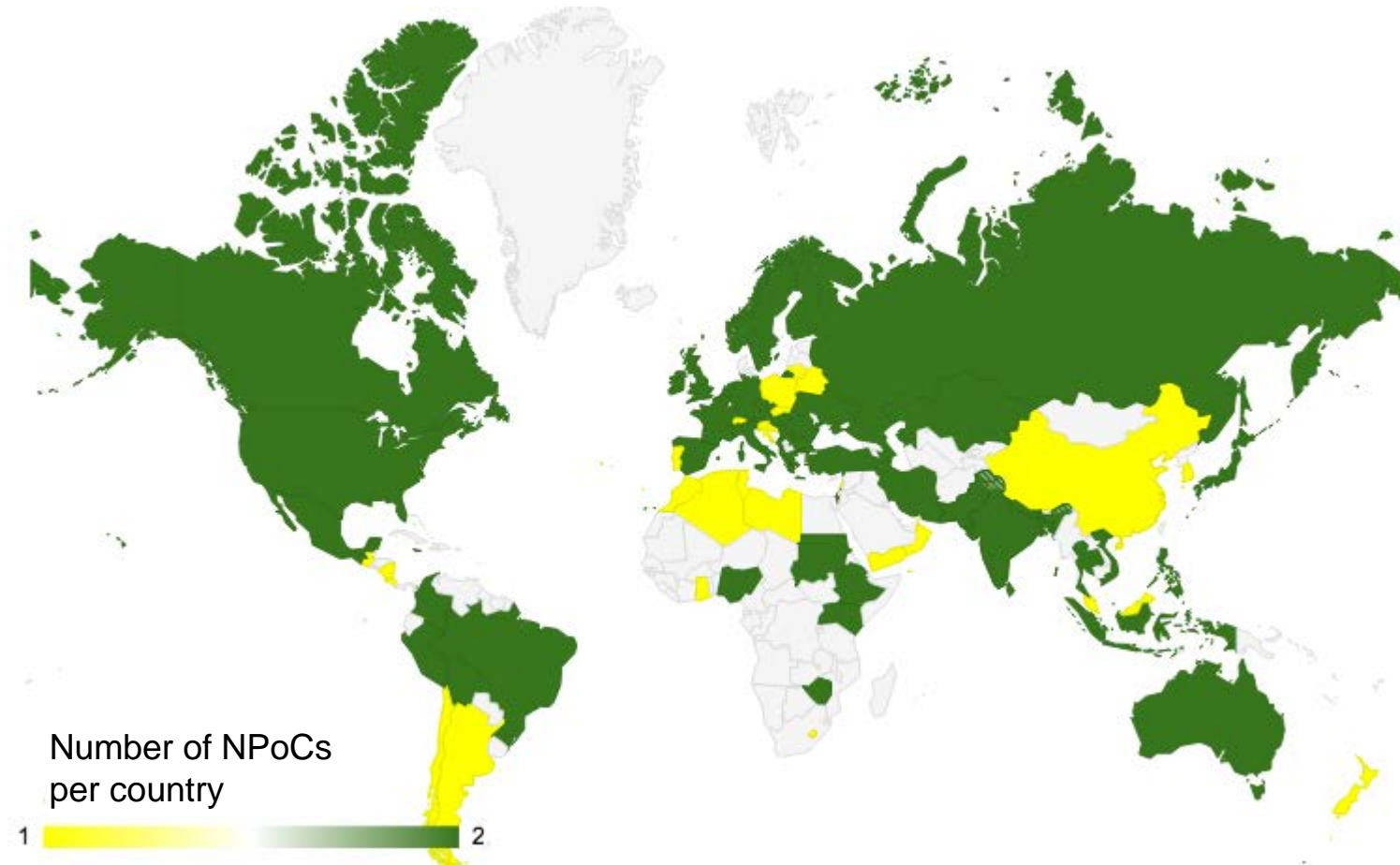
6 Regions, 110+ Countries, 4,000+ Members

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Space Generation Congress

The 14th Edition of SGC was held (8 - 10th October 2015) in Jerusalem, Israel

- Held in conjunction with the International Astronautical Congress

- 126 delegates from 44 countries

- 13 speakers, and 12 subject matter experts

- 56 scholarships and awards

SGC15
Jerusalem · Israel

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SGC 2015 WORKING GROUP RECOMMENDATIONS

EXPLORATION:
Pioneering Space

Advance Exploration Systems

Exploration Focus Area

- Expanding human presence into the solar system in a **sustainable and self-sufficient way**

- Framing human exploration in the context of Pioneering Space provides a **sustainable way of building exploration capabilities**

- Development of advanced technologies through **international partnerships and collaborations between established and emerging space agencies**

Recommendations

- **"Pioneering Space Together"** to build and maintain shared infrastructure and knowledge in space

- Pathway to sustainable pioneering

- Defining a **Proving Ground strategy** to address affordability issues, and including non-space faring nations

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COMMERCIAL:
How to support entrepreneurial activities

Commercial Focus Area

- **Interplay** between government, academia, and private sector

- Regulatory changes needed to **encourage space start-ups** with focus on effects of the International Traffic in Arms Regulations (ITAR)

- Financing and raising money for start-ups

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Commercial Recommendations

- Recommendations specific to several **launching states based on an evaluation** of each country's government, academia, and industry

- **A revision of ITAR rules**, more specifically to remove space applications from defence and place it under a separate body that is suited for space entrepreneurial activities

- Identification of areas to help improve start-up financing

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POLICY:
Policy Challenges related to Nanosatellites

Policy Focus Area

- **Forward projection** and the relationship between the traditional space industries and emerging space companies

- **Regulatory issues,** access to space, and mission lifetime for nanosatellites

- **Long-term sustainability issues** raised by proposed constellations and mega- constellations

Recommendations

- An international organisation **coordinate the stakeholders to develop guidelines and best practices** for nanosatellite operators and launch organisations

- Stakeholders should establish **an open orbital region** for nanosatellites

- Related organisations **promote the small satellite launcher market** for dedicated orbital insertion

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Communication Focus Area

- Investigation of widespread use of drones, satellites and high altitude balloons

- **SWOT analysis:**
  - **Strengths:** global coverage of satellites and balloons and high bandwidth of drones
  - **Weaknesses:** lower bandwidth of satellites and low coverage of drones

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Recommendations

- Conduct **market studies** to understand demand

- Institute a **phased approach**

- Let governments serve as **anchor tenants**

- Provide **future connectivity**

EARTH OBSERVATION:
The role of Earth Observation in Climate Change Monitoring and and Management

Earth Observation Focus Area

- **Few algorithms and applications** that can convert the data

- **Different formats** of space- borne data

- How to **bridge the gap** between the space-based data and the end users?

Recommendations

Main features of **CLOUD** are:

- A data and information archive

- A core system that will consist of elaborated or partially processed data derived from the query results of the user

- A user-friendly interface

SGAC REGIONAL & NATIONAL WORKSHOPS

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European Student Workshop 2015

- The **transition** from graduate to a start-up entrepreneur

- How can universities contribute to the acquisition of **hands-on experience**

- What can the space agencies do to **support students activities**

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- The Strategic Partnerships between emerging countries to **consolidate Asia-Pacific regional cooperation**

- **Space Business Incubators**

- Space Applications **– Benefit for All**

- Utilising small satellite program for **space education and awareness**

- **Space Security**

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THANK YOU

More details of the outcomes and discussions are published on the SGAC 2015 Executive Summary

www.spacegeneration.org

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