

The Space Generation Congress 2010: Perspectives from University Students and Young Professionals in the Space Sector

The Space Generation Advisory Council
in Support of the UN programme on Space Applications



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Basic Facts on SGAC



SGAC is a non-profit organisation that represents 18-35 year olds in international space policy at the United Nations, at agencies, in industry, and in academia

- Started as a result of the 1999 UNISPACE III conference
- SGAC has had permanent observer status in the UN COPUOS since 2001 and has been a member of the UN Economic and Social Council since 2003
- SGAC has a volunteer network of **about 4,000 members in 90 countries**



Space Generation Congress 2010



- **101 delegates** selected from **40 different countries** and six continents to discuss top space policy issues
- **30 participants** from **22 countries** were given full scholarships
- 10 IAF Youth Grant winners
- Students and young professionals represented a wide spectrum of technical and non-technical space backgrounds
- Topics: Industry, Agency, Climate, Exploration, and Outreach



2010 SGC Speakers



**Dr. Dmitriu Prunariu,
Chairman of UN
COPUOS**

**Berndt Feuerbacher,
President of the International
Astronautical Federation**



**Charles F. Bolden,
NASA Administrator**



Theme: Industry



The New, Increased Role of the Private Industry in the Space Sector

- **The present: Remote Sensing, Microgravity Sciences, International Space Station, Telecommunications, GNSS, Launching**
- **The future: Space Tourism, Space Products, Orbital Cleanup, Microgravity Processing, On-orbit Satellite Servicing**



Conclusions: Industry



- **Space Generation Prize: Competition for the best new business idea developed by a person/group under the age of 35.**
- **Space Generation Award: For the best advancement towards space utilisation**
- **SGAC sponsored pro-commercialisation of space event**
- **SGAC strategic networking plan**
- **Media and public relations network dedicated to cover space issues**
- **Network to encourage retiring space professionals to consult with emerging space nations**



Theme: Agency



Global Navigation Satellite Systems (GNSS) for Disaster Management

- **Past disaster management systems, to identify limitations, to what extent emergency information is available in real time, types of information required and processes to develop a successful system**
- **Disaster phases (pre - disaster, during, post disaster) and necessary steps of a disaster management cycle, focusing on technical and policy challenges**
- **Issues regarding Global Navigation Satellite Systems and possible ways to overcome the legal challenges regarding personal data storage**



Conclusions: Agency



- **Create a universal GNSS software system**
- **Distribute a ground-based network to high risk regions and countries.**
- **Develop a mobile GNSS device to track and monitor crowds during a disaster**
- **Promote Community Remote Sensing (CRS)**
- **Encourage the International Committee on GNSS (ICG) to have discussions regarding disaster management**
- **Make GNSS data more available via a centralised database**



Theme: Climate



Enhance Global Climate Data Exchange to Better Monitor Climate Change and Empower Policymakers, Scientists and the Community

- **Data and metadata collection standards**
- **The contribution and responsibilities of nations to engage to climate studies, taking into account the underlying social and economical issues**
- **Current challenges of Earth observation data exchange and Community Remote Sensing (CPR)**



Conclusions: Climate



- **Establish a global agreement on data acquisition, continuity and exchange**
- **Create common standards for metadata and data sharing**
- **Encourage more stakeholders to involve in acquiring, processing and interpreting Earth observation data**
- **Create a new business model providing easy data access**
- **Develop low cost and small scale initiatives**
- **Create a SGAC working group on climate**



Theme: Exploration



Examining the Feasibility of a Mission to Mars from the Perspective of the Young Generation

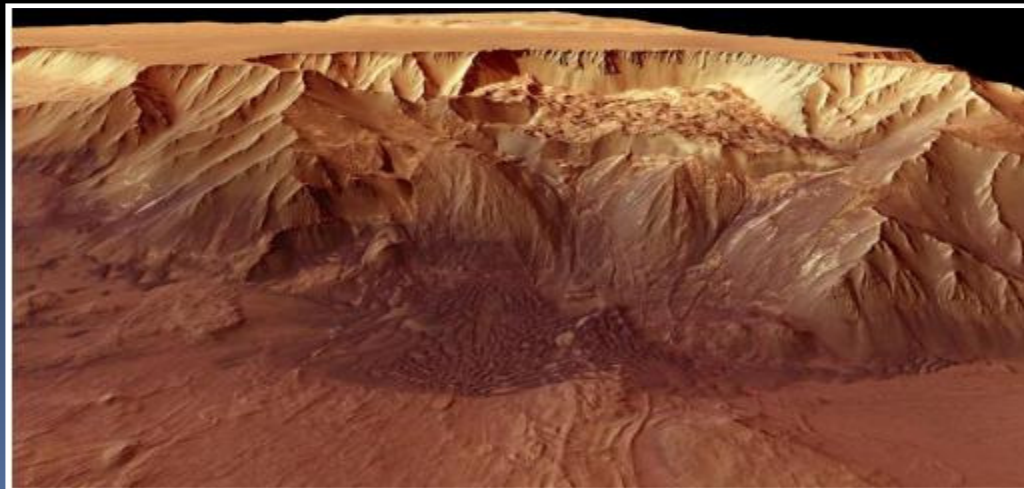
- **Human missions to the Moon:**
 - **Necessities**
 - **Benefits**
- **Human missions to Mars:**
 - **Short-term, long-term missions**
 - **Technical and operational necessities**
 - **Financial, social, legal and political factors**



Conclusions: Exploration



- **Human exploration missions should be an international, collaborative effort.**
- **Associated educational programmes should be created to stimulate interest in technical careers**
- **The Moon should not be a necessary stepping stone for getting to Mars.**
- **Through SGAC, the youth should continue to exchange ideas towards creating “the road-map to Mars”**

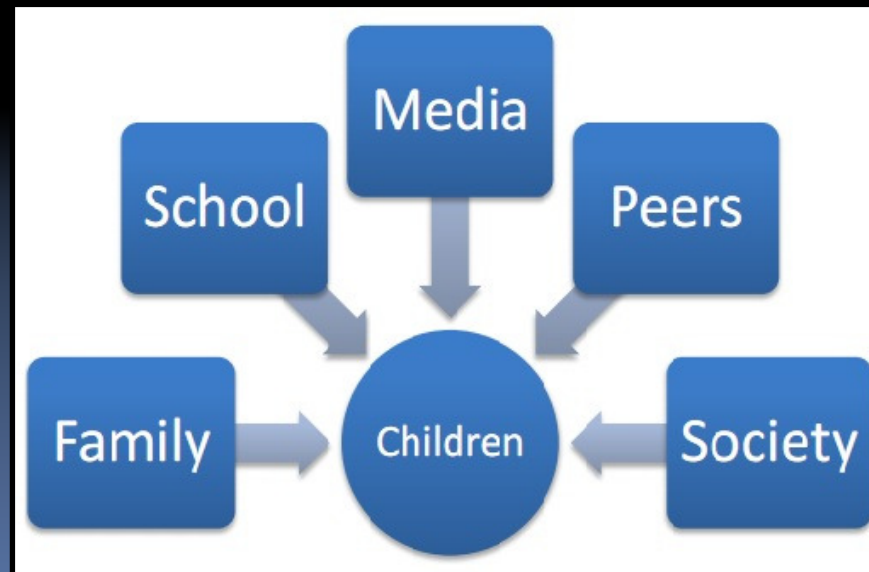


Theme: Outreach



Development of Science and Technology Education and Careers for the New Generation

- Lack of public awareness, encouragement and positive messaging
- Internationally lack of resources and stimulating opportunities for the young generation to be exposed to space.
- Space is not only rocket science for a selected, privileged few



Conclusions: Outreach



- **Social networks should be used in the promotion of space activities**
- **Myths and stereotypes about space should be broken**
- **Women from the space sector should give talks in schools and encourage both girls and boys to involve with space**
- **Media should be encouraged to focus on space**
- **Competitions and outreach programmes should be easily adaptable for different cultures and geographic needs**
- **A SGAC Outreach Working Group should be established**



Partners and Supporters



PLATINU



Anonymous

GOLD



LOCKHEED MARTIN

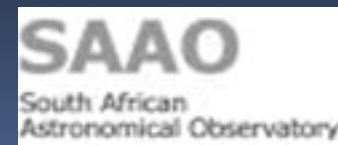


Cynda Collins Arsenault

SILVER



The European Commission



**A.C Charania , Peter Diamantis, James Moody,
George Whitesides and Juergen Schlutz**



Thank You

