



Outline

- Pathways to Sustainable Development
- Space community supply
- Development actors demand
- Dialogue, Stakeholders
- The Sustainable Development Goals



Global community & SDGs

- 4 dimensions of sustainable development
 - Economic development
 - Social inclusion
 - Environmental sustainability
 - Good governance







Building blocks - Key questions

- 1. Where has space already proven useful and which programs currently exist?
- 2. Where does it appear that space has been underused?
- 3. What is the current dynamic and who are the relevant actors?
- 4. What are the current dialogue fora and tools?
- 5. Which actors are overlooked?
- 6. How to create a sustainable dialogue and which new fora and tools are advisable?
- 7. Are new programmatic tools possible?



Space community – supply

- Multitude of sectors and actors with very different interests, specializations, backgrounds, and institutional character
- Space technology & economic development:
 - Private actors connectivity
 - EU Copernicus, Tiger Earth Observations
 - UN ICG GNSS







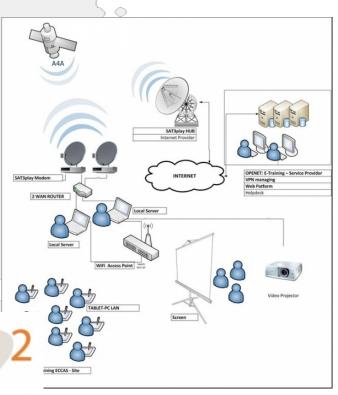
Space as an enabler

- Space services vs terrestrial infrastructures
- Integrated innovative services
- Tele-education and e-health











Space in the future



A new role for Space?

- Creation of Space programs addressing societal needs
- Innovative downstream services integrating Space and social data

Space as an essential tool for life on Earth

- Sustainable development & Smart Cities
- Connectivity & Big Data
- Mobility: integrated and green transportation systems

Space spin-in and Space spin-off

e-health, Key Enabling Technologies



Europe's global role

Climate change

European leading role in emissions monitoring

Energy and Infrastructures

- Full exploitation of renewable energy sources
- Infrastructures planning and sustainable development



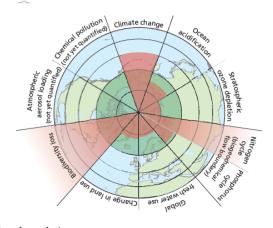




Development actors - demand

Some of the key development actors:

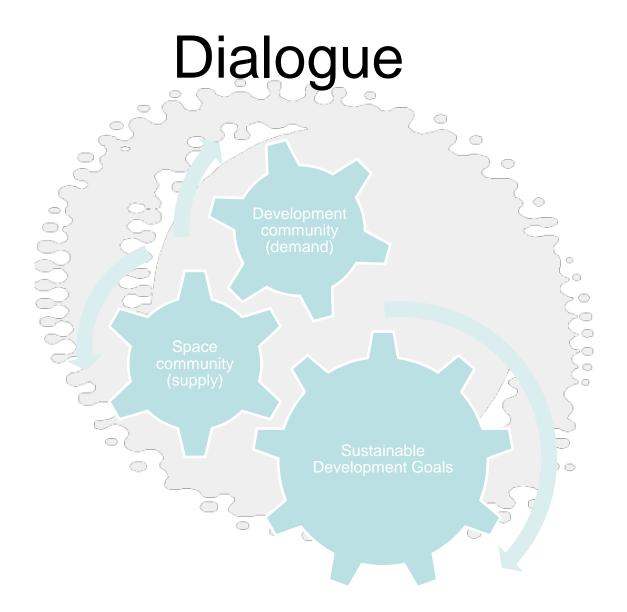
- national governmental actors
- citizens
- non-governmental actors
- governmental aid organisations
- intergovernmental organisations in the field
- the Office of the UN Special Representative for the SDGs,
- development consultancy firms



1.16 Planetary boundaries

Reprinted by permission from Macmillan Publishers Ltd: Nature, Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart Chapin, Eric F. Lambin, Timothy M. Lenton et al. "A Safe Operating Space for Humanity," copyright 2009.

©Jeffrey Sachs





New Programs

Space Agencies & third parties

Optional Programs structure

Space incubators

Stakeholders Civil Industry society Develop-NGOs ment banks European Union Space EC; EP; MS agencies Sustainable Development United Goals States **Nations**



SUSTAINABLE GEALS









