Space as an Arena for Innovation, Integration and Investment

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New Space is a disruptive sectorial dynamic featuring various end-to-end efficiency-driven concepts driving the space sector towards a more business- and service-oriented step.

- US public policies were instrumental in the emergence of New Space:
  - Regulatory framework enabling commercial activities and fostering investment
  - New procurement schemes enabling innovation and radical optimisation of industrial organisation
  - Public demand creating sustainable markets for businesses and contributing to gain investors confidence
- Private investments up to 2 B$/year
• **Turning technology into products or services**

**Space economy**

- **Upstream**
  - Spacecraft, launchers and ground segment integrators
  - Systems, sub-systems, equipment and components manufacturers
  - Launch services providers
  - Space agencies

- **Midstream**
  - Lease or sale of satellite capacity or data
  - Ground support infrastructure manufacturing
  - Ground support infrastructure operations

- **Downstream**
  - Value Added Services providers (broadcasting and broadband services, Direct-To-Home TV, Earth Observation added services...)
  - Consumer equipment and products manufacturers (satellite TV dishes, GNSS equipment, satellite phones...)

- **End users**
  - All governments, institutions, businesses, households and citizens using space based products and applications for their activity

Source: PwC report for the European Commission

- **Technical challenges are shifting from upstream to midstream and downstream**
  - Shift from public-regulated offer to “public consumption” schemes
- **Innovation is on the service side**
  - New Space is demand-driven
- **Define the needs for SDGs**
  - Share of lessons learnt in the field
  - SDGs driving the Technical requirements
  - Selection of candidates: Clear criteria and transparent process
  - Showcasing and training
Public Policies

Cooperation vs. Competition

• Cooperation: Between states
  - Avoid a new space race
  - Space exploration as the most relevant domain

• Competition: Between private actors
  - Ensure fair and open access to local markets

Promotion

• Promote the use of space-based services
  - Demonstrated or certified level of performance
  - Long term availability of services
    - Security of infrastructures
    - Operational framework for Space Traffic Management

Encourage Investments

• Gain the confidence of private investors
  - Set up an appropriate regulatory framework
  - Provide long-term Commitments
  - Ensure sustainability of space environment, legal certainty and predictability
  - Set up effective decision-making processes
Sharing Space

Space Resources are limited
- Major consequences in terms of international negotiations

The case of Space Telecommunications
- Management of:
  - A limited resource (spectrum)
  - In a competitive environment (emerging private operators)
  - In an international framework
- Creation of ITU
  - A specialised agency of the UN gathering
    - 193 member States
    - Around 700 public and private sector companies + international and regional entities
- Missions
  - Coordinate the shared global use of the radio spectrum
  - Promote international cooperation in assigning satellite orbits
  - Improve telecommunication infrastructure in the developing world
  - Assists in the development and coordination of worldwide technical standard
  - Organise worldwide and regional exhibitions and forums bringing together:
    - Representatives of government and the telecommunications and ICT industry
    - To exchange ideas, knowledge and technology
- Legal form
  - Intergovernmental public–private partnership organisation
- Key Features
  - Capacity of initiative
  - Put someone in the driver’s seat
Role of UNOOSA is increasingly important

Hard Law vs. Soft Law
• Hard law fails to gain support from major players
  - Rely on technology to preserve their interests
• Soft law fails to provide adequate protection to smaller actors

Code of Conduct / TCBMs / Guidelines
• Next Logical steps
  - Sufficient?
  - Fast enough?

Questions to be addressed at UNISPACE +50

Space law and global Space regulations
• Currently based on voluntary measures / behavioural modifiers

Make sure they will remain adequate
Thank you

The European Space Policy Institute (ESPI) provides decision-makers with an informed view on mid- to long-term issues relevant to Europe’s space activities. In this context, ESPI acts as an independent platform for developing positions and strategies.