

The Hague Code of Conduct: what role in promoting the peaceful use of space?

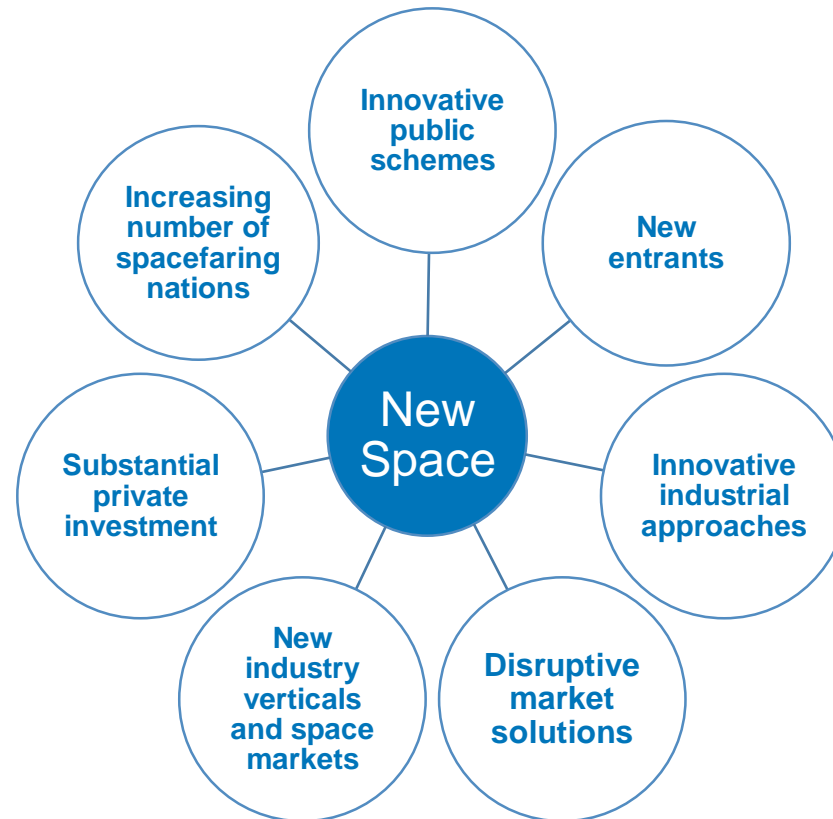
Transparency and confidence-building in the New Space age

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New Space: a change of paradigm for space activities

ESPI definition: 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.



Towards a virtuous space economic cycle

1. Global space economy growth

- New entrants and new investors
- More prominent role of private industry
- New space markets and industry verticals
- Amplifying effect: Business development will build confidence of investors

2. Rising importance of space-based solutions

- Increasing use of space services and products in a wide range of sectors
- Large measurable benefits for economy, society and environment
- More applications / Lower barriers of adoption (awareness, price, simplicity)
- Space capabilities will move from *complementary* to *integral* component
- Users adoption will move from *good-to-have* to *business-as-usual*

Fostering the virtuous space economic cycle uptake

- **New Space:** successful combination of effective public strategies and favorable business conditions
- **Public policies were instrumental in the emergence of New Space:**
 - **Regulatory framework** enabling commercial activities and fostering investment
 - **New procurement schemes** enabling radical optimisation of industrial organisation
 - **Public demand** creating sustainable markets for businesses and building investors confidence
- **The future of New Space cannot be disassociated from public strategies:**
 - Redefinition of the role of public actors
 - From “all-mighty customer” to “consumer”
 - Off-the-shelf services procurement
 - Long-term Commitments

New Space, New Risks?

Congested space

- **More objects in space:** operational systems and debris
- **Congested radio spectrum:** interferences, disputed bands

New behaviour

- **New actors:** private industry (new entrants and new role), emerging spacefaring nations
- **New concepts:** Mega-constellations, cubesats, space mining, in-orbit servicing, in-space assembly and manufacturing, active debris removal

Contested space

- **Critical infrastructure:** space systems are an increasingly important target for various groups
- **Multiple threats:** cyber attacks, jamming, spoofing, anti-satellite energy and kinetic weapons

Instruments at national, regional and international level:

- Awareness and dialogue
- Transparency and confidence-building measures
- Guidelines and principles
- Legal, institutional and regulatory frameworks

New Space and Space Launch Vehicles

- **Access to Space remains the main obstacle to space economy development**
- **Unprecedented level and pace of space launch vehicles developments:**
 - New entrants and established industry leveraging innovative public procurement schemes and private investments
 - New space-fairing nations developing domestic access to space capabilities
 - New concepts (e.g. micro-launchers, reusable launchers, sub-orbital flights, in-orbit manufacturing)
 - More prominent role of private industry in development and operations of SLV
- **The future of New Space cannot be disassociated from developments in access to space:**
 - Development of domestic capabilities by new nations
 - Substantial cost reduction, decomplexification, turnkey & adapted solutions
 - Access to Space is evolving at a fast pace

Role of the Hague Code of Conduct in the New Space age

1. International principles and transparency and confidence-building measures

- Driver of national space security practices in the field of SLV development (i.e. licensing, export and technology transfer control)
- Instrument to build confidence of the international community in SLV development programmes
- Successful example of soft law contribution to international security

2. The role of the Hague Code of Conduct in the New Space age

- Essential international agreement at a time of 1) multiplication of SLV development programmes and 2) loosening of government top-down control over space activities
- International agreement on an undisputable governmental sovereign power (and responsibility) over SLV development programmes
- Preserves freedom of action of established space powers does not hamper the emergence of spacefaring nations seeking a peaceful use of space for socio-economic development

3. Way forward: key stakes

- Increasing the number of subscribing states
- HCoC as a component of the international space security framework
- Keeping pace with developments in the space sector



Thank you

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