
# Policy Regime, Formulation and Institutions

## ISPL Space Policy and Law Course 2020

*Dr Christoph Beischl*
*Research Fellow, ISPL*

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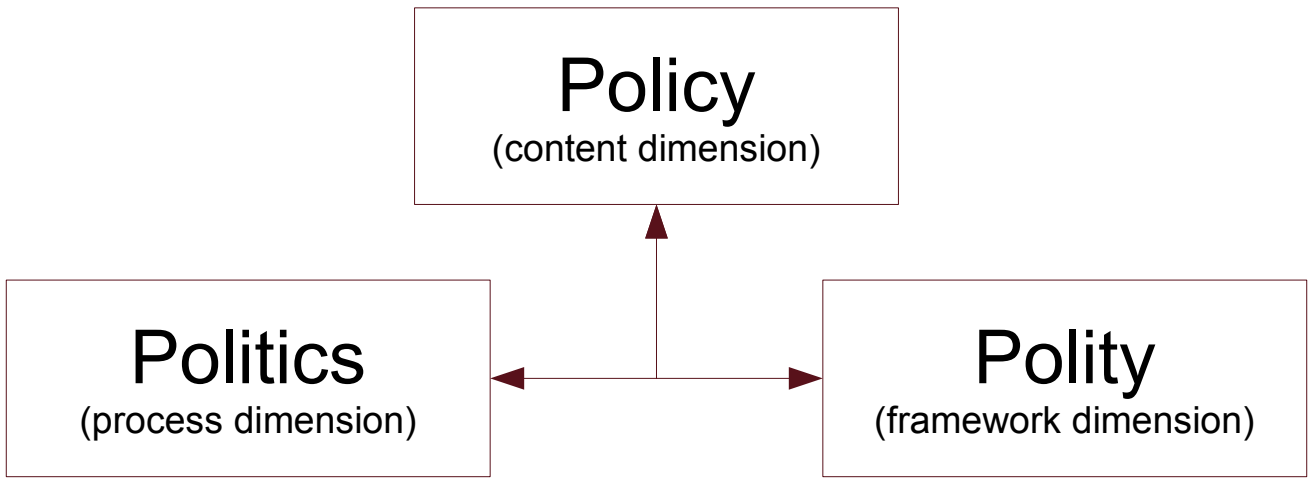
# General

- No “single definite approach” to discuss, analyse and predict Policy
- Broad range of Policy related literature
- Term ‘Policy’ used liberally in media, by politicians and others

# Policy, Politics, and Polity

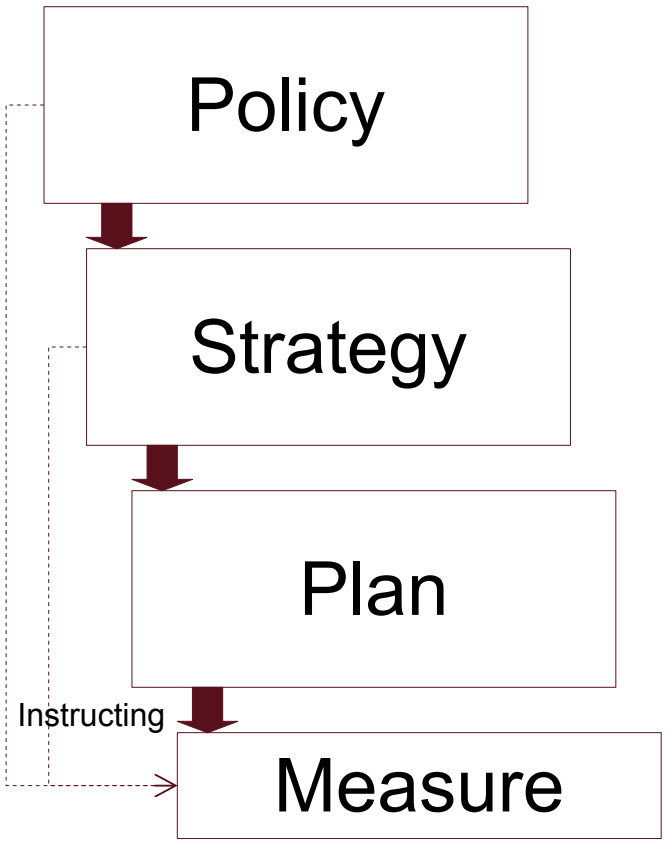



*The three – interlinked – dimensions of the political sphere*

# Study of Policy and Law

| Study of Policy | Study of Law |
| --- | --- |
| Objectives | Norms |
| Strategies | Laws |
| Narratives | Rules |
| ... | ... |

# Policy and related subdomains




- Main Objectives → policy objectives / directions

  + info on general reasoning; policy-making process; strategic milestones

- Basic strategic approach in detail

  + info on strategy-making process; general reasoning

- Scheme promoting particular implementation methods and instruments

- Implementation activity

# Space Policy documents: examples

Home › Space Policies

## Space Policies

### National Level

- National Space Council Directives
- National Space Policy
- National Space Transportation Policy
- U.S. Space-Based Positioning, Navigation, and Timing Policy
- U.S. Commercial Remote Sensing Space Policy
- Presidential Memorandum on Launch of Spacecraft Containing Space Nuclear Systems (whitehouse.gov)
- Executive Order on Strengthening National Resilience through Responsible Use of Positioning, Navigation, and Timing Services (whitehouse.gov)
- Executive Order on Encouraging International Support for the Recovery and Use of Space Resources (whitehouse.gov)

### NOAA Level

- NOAA Commercial Space Policy

space.commerce.gov

HM Government

## National Space Policy

Gov.uk

## Outline of the Basic Plan on Space Policy
## (Provisional Translation)

30 June 2020

National Space Policy Secretariat, Cabinet Office, Government of Japan

www.cao.go.jp

# Space Policy objectives

- No fixed set of objectives, strategies, plans, measures


Source n/a

# Space Policy objectives

- No fixed set
- High-level policy principles:
  - Peaceful Use (non-aggressive vs non-military)
  - Freedom of use and exploration
  - Non-appropriation
  - Non-interference
  - Cooperation

# Space Policy objectives – examples

- Five broad categories of policy objectives

| | | |
|---|---|---|
| Socioeconomic (incl. environmental) | Political | National Security |
| S&T | Autonomy-oriented | |

# Socioeconomic policy objectives – examples

Motivation:

- Potential of space capabilities and capacities to contribute to, e.g.,
  - agricultural monitoring and planning
  - disaster management
  - environmental protection
  - fishing
  - infrastructure development
  - industrial development
  - creation/entering of new markets
  - resource management
  - transportation
  - weather forecasting

**Table 6: Comparative overview of space-related socioeconomic state preferences**

| China | India | Iran | Japan | South Korea | North Korea |
|---|---|---|---|---|---|
| **Space-related socioeconomic state preferences** | | | | | |
| Advancing the country's | " | " | " | " | " |
| socioeconomic development | | | | | *(tentatively)* |
| **Related target areas** | | | | | |
| Developing and applying space-related capabilities and capacities to deal with a broad set of socioeconomically relevant issue-areas for the country | " | " | " | " | Developing and applying space-related capabilities and capacities to deal with a few socioeconomically highly relevant issue-areas for the country<br><br>(focus apparently on the areas of agriculture, disaster management, forestry and meteorology)<br><br>*(tentatively)* |
| Expanding the domestic (private) space industry | Expanding the domestic (private) space industry's involvement in the government-promoted space-related upstream sector | Expanding the domestic non-governmental space industry | Expanding the domestic (private) space industry | " | – |
| Extending the domestic space market | To a limited degree, extending the domestic space market and enhancing the country's entities' role in the international space market in both the upstream and downstream sector | Extending the domestic commercialisation of space technology | Extending the domestic space market | " | – |
| Enhancing the country's entities' role in the international space market | | – | Enhancing the country's space industry's role in the international space market | " | – |

(**Colour key**: mixed-motive game / no mixed-motive game)

# Political policy objectives - examples

Motivation:

- Potential of space capabilities and capacities to contribute to, e.g.,
  - advancement of domestic public support/legitimacy to rule
  - international prestige and influence

**Table 7: Comparative overview of space-related political state preferences**

| China | India | Iran | Japan | South Korea | North Korea |
|---|---|---|---|---|---|
| **Space-related political state preferences (I)** | | | | | |
| Securing the legitimacy of the CPC's rule over all of China | Increasing public support for the democratically elected government<br><br>*(tentatively)* | Increasing the Iranian people's national pride and support for the authoritarian political system | Increasing public support for the democratically elected government<br><br>*(tentatively)* | Increasing national pride and public support for the democratically elected government<br><br>*(2nd aspect: tentatively)* | Securing the legitimacy of the Supreme Leader's rule over the DPRK |
| **Space-related political state preferences (II)** | | | | | |
| Advancing the country's international prestige and influence | " | " | " | " | " |
| **Related target areas (II)** | | | | | |
| – | Advancing India's international prestige and influence in its direct neighbourhood in South Asia<br><br>Counterbalancing China's striving for influence in Asia | Attaining the regional first place in the conquest of space<br><br>(region likely means here: Islamic world; Middle East and neighbouring states, Central Asia and the Caucasus region)<br><br>Becoming a top ten space-faring state in the world by 2025 | – | Advancing South Korea's international prestige and influence vis-à-vis North Korea<br><br>*(tentatively)* | Advancing North Korea's international status as a technologically and scientifically powerful independent state vis-à-vis South Korea |

(**Colour key**: mixed-motive game / no mixed-motive game)

# National security policy objectives – examples

Motivation:

- Potential of space capabilities and capacities to contribute to, e.g.,
  - enhancement of military support system
  - advancement of ability to address enemies' use of space during armed conflict
- Engagement in prevention of weaponisation and an arms race in outer space

**Table 8: Comparative overview of space-related national security state preferences**

| China | India | Iran | Japan | South Korea | North Korea |
|---|---|---|---|---|---|
| **Space-related national security state preferences** | | | | | |
| Safeguarding the country's national security | " | " | " | " | " |
| **Related target areas** | | | | | |
| Enhancing the strategic support system of the country's military | " | " | " (presumably especially against China, Iran and North Korea) Improving the US-Japanese alliance, with a focus on furthering their deterrence and response capabilities (presumably especially against China, Iran and North Korea) | " (presumably especially against North Korea and partially in interaction with the USA) | " (presumably especially against Japan, South Korea and the USA) |
| Preventing the weaponisation of and an arms race in outer space | " | – (*Tentatively speaking*, the prevention of the weaponisation of and an arms race in outer space is presumably important to the government as well) | " (*tentatively*) | – (*Tentatively speaking*, the prevention of the weaponisation of and an arms race in outer space is presumably important to the government as well) | " |
| Hedging against potential enemies' use of their space capabilities during armed conflict with the country | " (*tentatively*) | – | " (*tentatively*) | – | – |
| – | – | Establishing efficient domestic long-range (nuclear-armed) ballistic missile strike capabilities (*tentatively*) | – | – | Establishing efficient domestic nuclear weapon (counter-)strike capabilities (presumably especially against Japan, South Korea and the USA) |

(**Colour key**: mixed-motive game / no mixed-motive game)

# S&T policy objectives – examples

Motivation:

- Potential of space capabilities and capacities to contribute to, e.g.,
  - advancement of scientific and technological development per se (domestically/internationally)

**Table 9: Comparative overview of space-related science and technology state preferences**

| China | India | Iran | Japan | South Korea | North Korea |
|---|---|---|---|---|---|
| Space-related science and technology state preferences | | | | | |
| Advancing the country's scientific and technological level per se | " (although in a limited fashion so far) | " (although in a limited fashion so far) | " | " (although in a limited fashion so far) | – (The advancement of North Korea's scientific and technological level per se might become relevant under the government's future space programme) |

(**Colour key**: mixed-motive game / no mixed-motive game)

Presenter's PhD thesis

# Autonomy-oriented policy objectives – examples

Motivation:

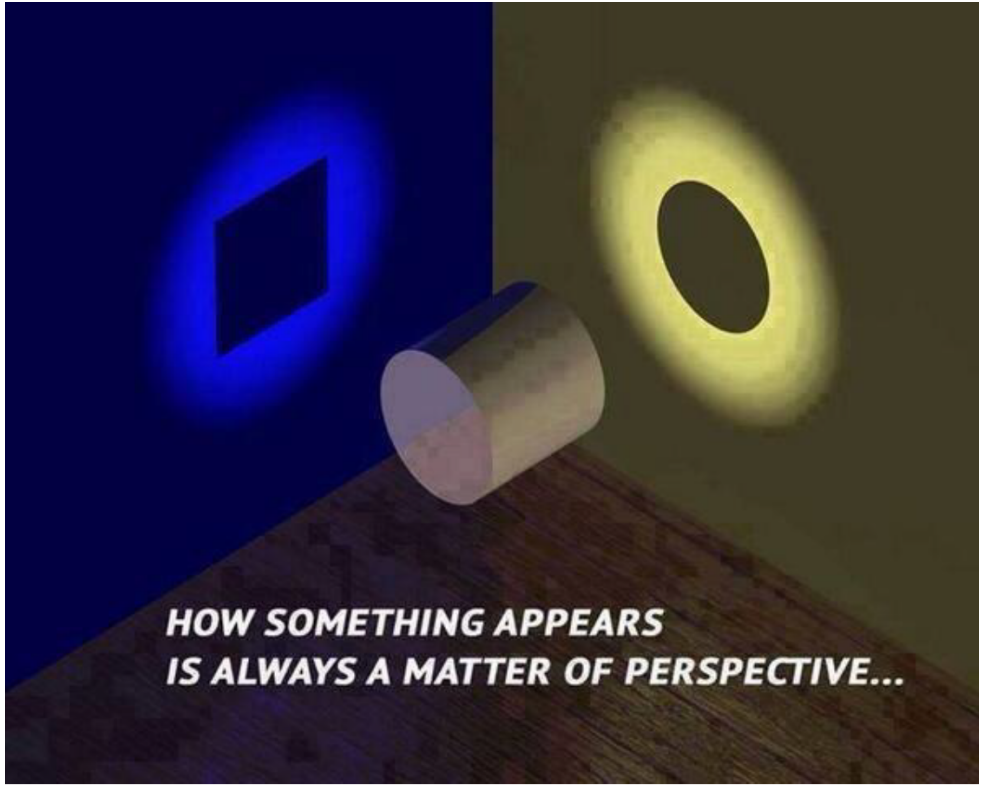
- Ensuring the stable use of outer space
- Ensuring independence from others concerning access to and use of outer space

**Table 10: Comparative overview of space-related autonomy-oriented state preferences**

| China | India | Iran | Japan | South Korea | North Korea |
|---|---|---|---|---|---|
| **Space-related autonomy-oriented state preferences** | | | | | |
| Ensuring the stable use of outer space for the country | " | " | " | " | – (*Tentatively speaking*, the ensuring of the stable use of outer space for the country is presumably also important to the government) |
| Developing and maintaining the domestic human, industrial, scientific and technological capabilities and capacities necessary to engage, at least on a basic level, independently in the pursuit of other space-related state preferences | " | " | " | " | Developing and maintaining the domestic human, industrial, scientific and technological capabilities and capacities necessary to engage primarily independently in the pursuit of other space-related state preferences |

(**Colour key**: mixed-motive game / no mixed-motive game)

# Analytical issues (1/3)

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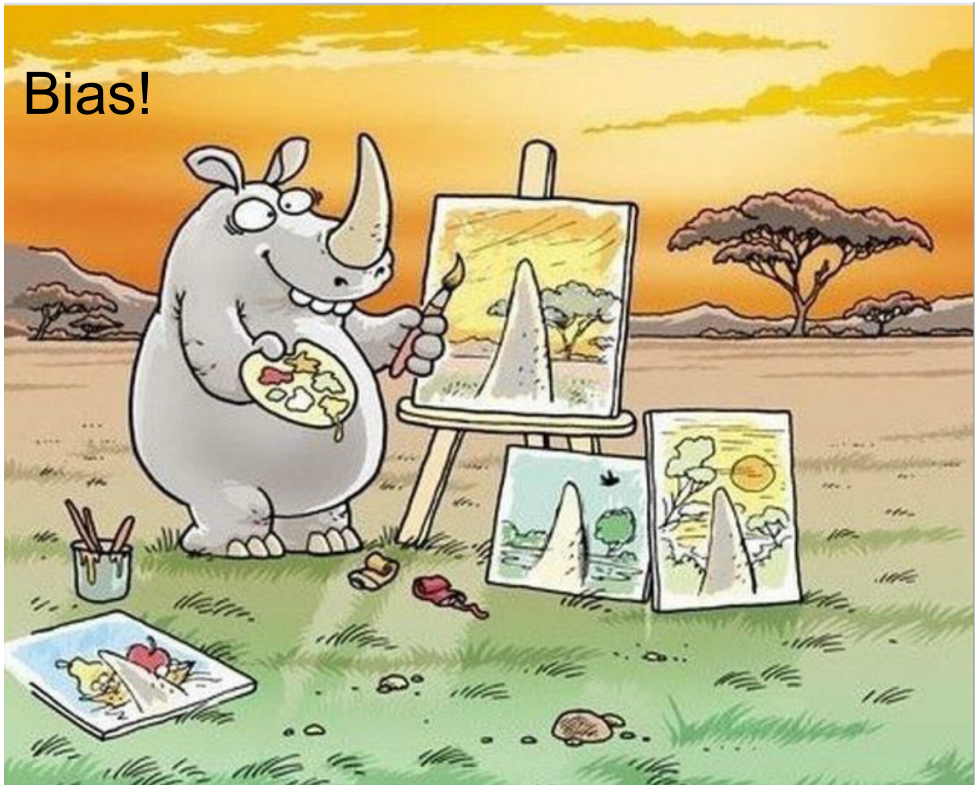



Source n/a

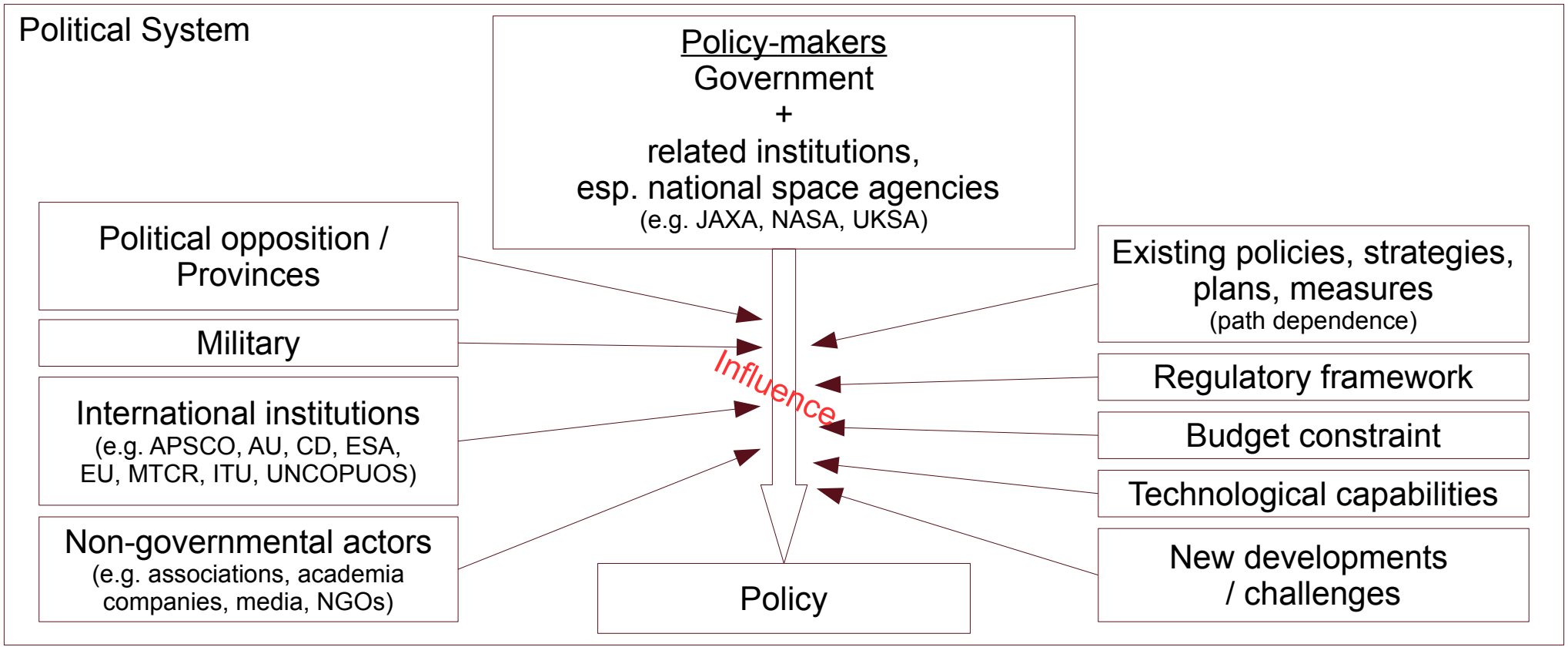
# Analytical issues (2/3)

- Relevant documents not labelled as such
- Documents unpublished or non-existent
- Information in official material limited
- Required information dispersed among different material
  - Documents, political statements, websites, conference presentations …

# Analytical issues (3/3)

- Special meaning behind certain phrases
- Inaccuracies/errors in media articles, translations & secondary literature
- Lack of identifiable examples to confirm assessment
  - *Declaration vs implementation*
- (Sudden) additions, reinterpretations and other adjustments by new governments or due to changing circumstances

# Policy formulation: complexity



# National Space Agencies

- Exist in various forms and with varying functions
  - Different forms and dependencies, e.g.:
    - NASA: Independent agency of federal government
    - UKSA: Executive agency, sponsored by BEIS
    - JAXA: National Research and Development Agency, with MEXT as competent ministry in charge
    - CNSA: Administration, hierarchically under SASTIND, subordinate to MIIT
  - Functions can include: implementation, policy and regulatory involvement, representation, administration

# International institutions – UNCOPUOS

- United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS)
  - 1958/1959: 18/24 MS; 2019: 95 MS
  - Supported by UN Office for Outer Space Affairs (UNOOSA)
  - Scientific and Technical Subcommittee; Legal Subcommittee
  - Main intergovernmental arena to discuss issues, regulations, code of conduct, voice concerns, promote cooperation and peaceful use
  - Acts by consensus
  - Instrumental in creation of the five main space agreements
  - Guidelines for the long-term sustainability of outer space activities

# Regional institutions – examples

- European Space Agency (ESA)
  - IGO with 22 MS; Convention in force since 1980
  - Separate from but closely engaged with EU
  - Council and Director General assisted by staff

- Asia-Pacific Space Cooperation Organization (APSCO)
  - IGO with 8 MS; Convention in force since 2006
  - Council and Secretariat headed by Secretary-General (China-led)

- Asia-Pacific Regional Space Agency Forum (APRSAF)
  - Regional forum established 1993: annual plenary meeting, working groups, initiatives
  - Voluntary engagement (Japan-led)

# New developments and challenges

- Rapid expansion of number of actors
  - More developing countries
  - More and more private commercial actors
    - Reduce cost of access
    - Wealth concentration
    - Competition with traditional actors

- Growing number of new(ly) attempted undertakings
  - Mega-constellations
  - On-orbit servicing; Active debris removal
  - Tourism
  - Resource extraction
  - ASAT tests and cyber attacks

# New developments and challenges

- Earth orbit issues
  - Congested, competitive and contested
  - Increasing dependence from space infrastructure
    - Safety issues
    - Security issues
    - Sustainability issues
  - Space Traffic Management (STM)

- Artemis Accords
  - Criticism of content
  - Put forward outside of traditional international institutions

# Further challenges

- Treaty adherence
- Arms control
- Operator diversity and coordination
- Differential needs
- Public support
  - Sustained funding and investment
  - Educate and inform of benefits

# Some Space Policy related publications

- Air & Space Law
- Annals of Air and Space Law
- Astropolitics: The International Journal of Space Politics & Policy
- German Journal of Air and Space Law
- Journal of Space Law
- NewSpace: The Journal of Space Entrepreneurship and Innovation
- Proceedings of the International Institute of Space Law
- Space Policy

# Q&A