

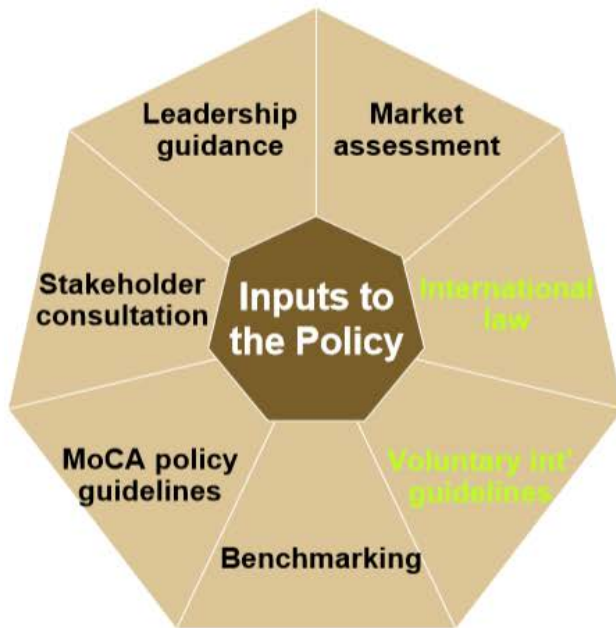
# UAE Space Policy Alignment with Long Term Sustainability

Agenda Item 10: Space and sustainable Development  
COPOUS 2018



# The UAE Space Policy articulates the Government's intentions for the space sector to its citizens, industry, international community and other stakeholders

Informed by leadership vision and best practices...



... and organized to provide clear guidance and accountability



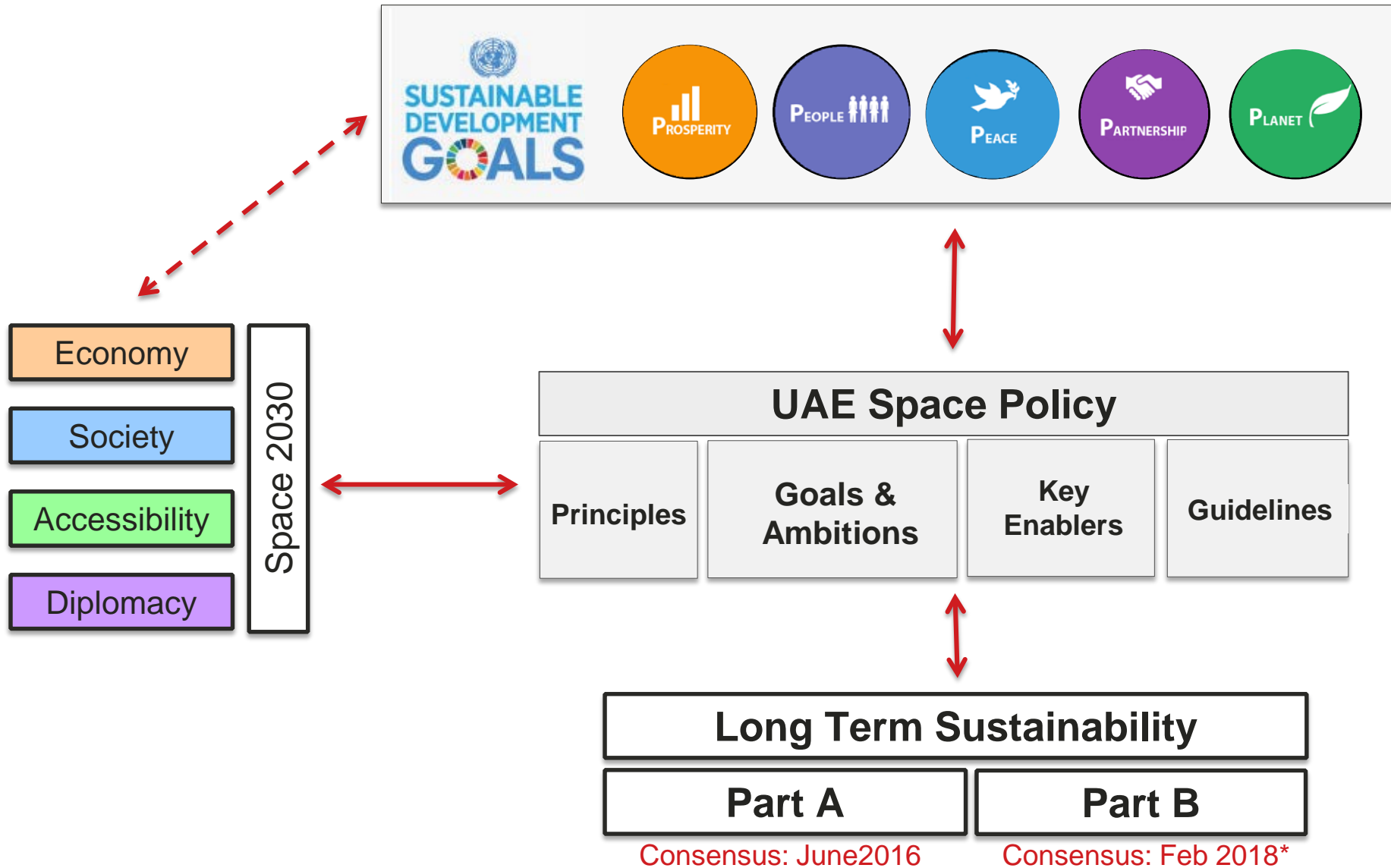
... to deliver a compelling vision for our national space sector

**The UAE will develop a national space sector that:**

- Supports and **protects national interests** and vital industries;
- **Contributes to the diversification** and growth of the economy;
- **Boosts UAE specialized competencies;**
- **Develops scientific and technological capabilities;**
- **Engrains the culture of innovation and national pride,** and
- **Strengthens UAE's status and role regionally and globally.**



# The Alignment of Policies and principles



# Long Term Sustainability Guidelines (1/2)

## Part A

Consensus: June 2016

## Part B

Consensus: Feb 2018\*

## Part C

Under Discussion

- GL1: Adopt and revise regulatory framework
- GL2: Consider number of elements when developing regulatory framework
- GL3: Supervise the national space activities
- GL4: Ensure rational and efficient use of spectrum & orbits
- GL12: Improve accuracy of orbital data on space objects & practice for sharing orbital info
- GL13: Promote collection, sharing of Debris monitoring Info
- GL16: Share operational space weather data & forecast
- GL17: Develop space weather models, tools, and established practices to mitigate space weather effects
- GL25: Support capacity building
- GL26: Raise awareness
- GL27: Support sustainable use and exploration of space via R&D and other means
- GL28: Investigate new measures to manage space debris



# Long Term Sustainability Guidelines (2/2)

## Part A

Consensus: June 2016

## Part B

Consensus: Feb 2018\*

## Part C

Under Discussion

- GL6: Enhance the practice of registering space objects
- GL 11: Provide updated contact information and share information on space objects and orbital events
- GL 14: Perform conjunction assessment during all orbital phases of controlled flight
- GL 15: Develop practical approaches for pre-launch conjunction assessment
- GL 30: Design and operation of space objects regardless of their physical and operational characteristics
- GL 31: Take measures to address risks associated with the uncontrolled re-entry of space objects
- GL 32: Observe measures of precaution when using resources of laser beams passing through outer space
- GL23: Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities
- GL24: Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



# The Principles: define why the UAE is developing the space sector

## Principles

2.1 Enhance the Lives of Citizens

2.2 Support UAE National Interests

2.3 Support Growth & Economic Diversification

2.4 Promote Collaboration & support the UAE Position

2.5 Respect International Laws and Treaties

### Part A

**GL4:** Ensure rational and efficient use of spectrum & orbits

**GL12:** Improve accuracy of orbital data on space objects & practice for sharing orbital info

**GL13:** Promote collection, sharing of Debris monitoring Info

**GL16:** Share operational space weather data & forecast

### Part B

**GL 11:** Provide updated contact information and share information on space objects and orbital events

**GL23:** Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



# The Goals: define what the UAE intends to achieve in the space sector

## Goals

3.1. Expand the Utilization of Space to Protect and Support Vital Sectors

3.2. Develop a Sustainable, Competitive and Innovative Commercial Space Industry

3.3. Conduct Scientific Space Missions

3.4. Promote a Safe and Stable Space Environment that supports sustainable Space Activities

3.5. Establish and expand UAE leadership in space

## Part A

GL4: Ensure rational and efficient use of spectrum & orbits

GL12: Improve accuracy of orbital data on space objects & practice for sharing orbital info

GL13: Promote collection, sharing of Debris monitoring Info

GL16: Share operational space weather data & forecast

GL17: Develop space weather models, tools, and established practices to mitigate space weather effects

GL27: Support sustainable use and exploration of space via R&D and other means

GL28: Investigate new measures to manage space debris

## Part B

GL 11: Provide updated contact information and share information on space objects and orbital events

GL 14: Perform conjunction assessment during all orbital phases of controlled flight

GL 15: Develop practical approaches for pre-launch conjunction assessment

GL 30: Design and operation of space objects regardless of their physical and operational characteristics

GL 31: Take measures to address risks associated with the uncontrolled re-entry of space objects

GL 32: Observe measures of precaution when using resources of laser beams passing through outer space



# The Enablers: identify the capabilities needed to support the achievement of the policy goals

## Enablers

4.1 Continuous Awareness of the Importance of Space and its Activities

4.2 Qualified UAE Space Professionals

4.3 Effective and Attractive Space Regulatory Environment

4.4 Active Management of Radiofrequency and Satellite Orbital Resources

4.5 Effective Science, Technology and Innovation Programs

4.6 National, Regional and Global Collaborations, Coordination and Partnership

4.7 Adequate Investment and Financial Support

4.8 Supporting Facilities and Infrastructure

## Part A

**GL1:** Adopt and revise regulatory framework

**GL2:** Consider number of elements when developing regulatory framework

**GL4:** Ensure rational and efficient use of spectrum & orbits

**GL12:** Improve accuracy of orbital data on space objects & practice for sharing orbital info

**GL13:** Promote collection, sharing of Debris monitoring Info

**GL16:** Share operational space weather data & forecast

**GL 25:** Support capacity building

**GL 26:** Raise awareness

**GL27:** Support sustainable use and exploration of space via R&D and other means

**GL28:** Investigate new measures to manage space debris

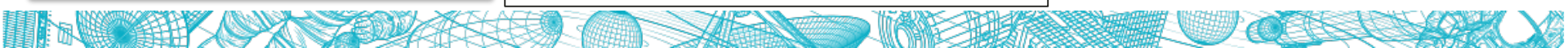
## Part B

**GL6:** Enhance the practice of registering space objects

**GL 11:** Provide updated contact information and share information on space objects and orbital events

**GL23:** Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange





# The Guidelines: provide direction to stakeholders on activities needed to support and develop the sector (1)

## 1. National Functions

Provide support to national security capabilities

Enhance national capabilities for disaster monitoring and response

Provide support to key UAE industries

Utilizing space technology to improve the quality of life of UAE people

Support national capabilities for natural resources management

Support national initiatives for smart cities and e-government

Support international efforts for promotion of sustainable space activities

### Part A

**GL4:** Ensure rational and efficient use of spectrum & orbits

**GL12:** Improve accuracy of orbital data on space objects & practice for sharing orbital info

**GL13:** Promote collection, sharing of Debris monitoring Info

**GL16:** Share operational space weather data & forecast

**GL27:** Support sustainable use and exploration of space via R&D and other means

**GL28:** Investigate new measures to manage space debris

### Part B

**GL6:** Enhance the practice of registering space objects

**GL 11:** Provide updated contact information and share information on space objects and orbital events

**GL23:** Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



# The Guidelines: provide direction to stakeholders on activities needed to support and develop the sector (2)

## 2. Science, technology & exploration

Develop and encourage UAE scientific and aerospace engineering professional

Enhance land and climate observation and support environment protection

Support national space technology development

Create programs to support space exploration efforts

Embark on space programs that increase UAE's status in this field

### Part A

**GL3:** Supervise the national space activities

**GL16:** Share operational space weather data & forecast

**GL17:** Develop space weather models, tools, and established practices to mitigate space weather effects

**GL 25:** Support capacity building

**GL27:** Support sustainable use and exploration of space via R&D and other means

**GL28:** Investigate new measures to manage space debris

### Part B

**GL23:** Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



# The Guidelines: provide direction to stakeholders on activities needed to support and develop the sector (3)

## 3. Commercial Sector

Promote UAE products and services

Support economic diversification and develop new markets

Create a competitive and sustainable commercial space industry

Promote and sustain innovation

Promote creative entrepreneurship and commercial space projects

Support the development of space industry standards

### Part A

**GL1:** Adopt and revise regulatory framework

**GL2:** Consider number of elements when developing regulatory framework

**GL4:** Ensure rational and efficient use of spectrum & orbits

**GL28:** Investigate new measures to manage space debris

### Part B

**GL6:** Enhance the practice of registering space objects

**GL 15:** Develop practical approaches for pre-launch conjunction assessment

**GL 31:** Take measures to address risks associated with the uncontrolled re-entry of space objects

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



# Implementation and Governance of the Policy

## 4 key success factors

### Implementation and Governance of the policy

Effective stewardship by the UAE Space Agency

Assessment to identify gaps and opportunities

Active stakeholder involvement and coordination

Review and revision of the Space Policy

### Part A

**GL1:** Adopt and revise regulatory framework

**GL2:** Consider number of elements when developing regulatory framework

**GL3:** Supervise the national space activities

**GL 26:** Raise awareness

### Part B

**GL24:** Share experience related to the long-term sustainability of outer space activities and develop new procedures, as appropriate, for information exchange



**Sumaya Al Hajeri**  
HoS – Space Legislations  
[s.alhajeri@space.gov.ae](mailto:s.alhajeri@space.gov.ae)

**UAE Space Agency**

