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POLICY WATCH

June 2019 | Volume 1 | Issue 5

A newsletter that highlights policies, plans, programs and progress in the global geospatial community.

In focus this month are: ►

Geospatial Technology Policies

Angola – Angola National Space Strategy Approved	3
Nigeria - Nigeria Plans Launch of Satellite	4

Associated Policies

Malaysia - Malaysia to get its first AI park	5
UK- Regulations for IoT Cybersecurity Updated	6

Policy in Focus

Commercialization of Space	7-9
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Foreword

The June issue of Policy Watch largely focuses on Space, with descriptions of space-policy efforts in two African emerging economies – Angola and Nigeria – and an overview of commercialization efforts, largely in India, the U.K. and the U.S.A.



Angola has undertaken an strategic planning and analysis effort comprised of three major elements -- reviewing all national legislation pertaining to space, planning for the construction, launch, and operation of Angosat-2, and detailing related growth and sustainability guidelines and performance indicators. The Plan, released in May (2019), builds on an earlier (2016) National Space Strategy to ensure ongoing national efforts are fully integrated.

Nigeria's National Space Research and Development Agency (NRSDA), created in 1995, has partnered with other space agencies on satellite programs, and now has plans for building and launching a satellite in Nigeria. Extending their historic focus on disasters, NRSDA plans to cover much of the entire disaster-spectrum with prediction, detection, monitoring and modeling capabilities. As a partner in the International Charter for Space and Major Disasters through the co-sponsored Disaster Monitoring Constellation (DMC), it is reported that Nigeria through the Nig Sat-1 Satellite was one of the first to provide data during Hurricane Katrina.

The private sector has historically had a strong role to play in Space, largely as contractors to national space agencies. For more than three decades, however, at least in the U.S., there have also been policies supporting commercial use of space. In the early 1980's, commercialization of space was identified as an important national goal, and in 1984, the NASA Authorization Act was amended to encourage commercial use of space to the maximum extent possible. While at a relatively high level, it appears that the pros and cons of this phenomenon have remained the same, there are ever-increasing investments from the commercial sector in space. Over the last decade, it is reported that U.S. \$18B has been invested by the private sector in space, of which U.S. \$3B was invested in 2018-2019.

Elsewhere, over the last year, India has issued a Space Activities Bill with an allowance for commercial use of space and the U.K. has prepared an Aerospace Investment Technology Strategy identifying U.S. \$159M for a Future Flight Challenge.

Coming full circle to where we started this issue, it is also expected, that over the next decade, the commercial sector will make greater contributions to small and emerging-economy countries as they strive to join the space race. As with any part of the geospatial ecosystem, clear roles and responsibilities, and strong partnerships among public and private entities are needed to ensure sustained economic growth and sound development. Please join me in looking at the advancements described herein

A handwritten signature in blue ink that reads "Barbara J. Ryan".

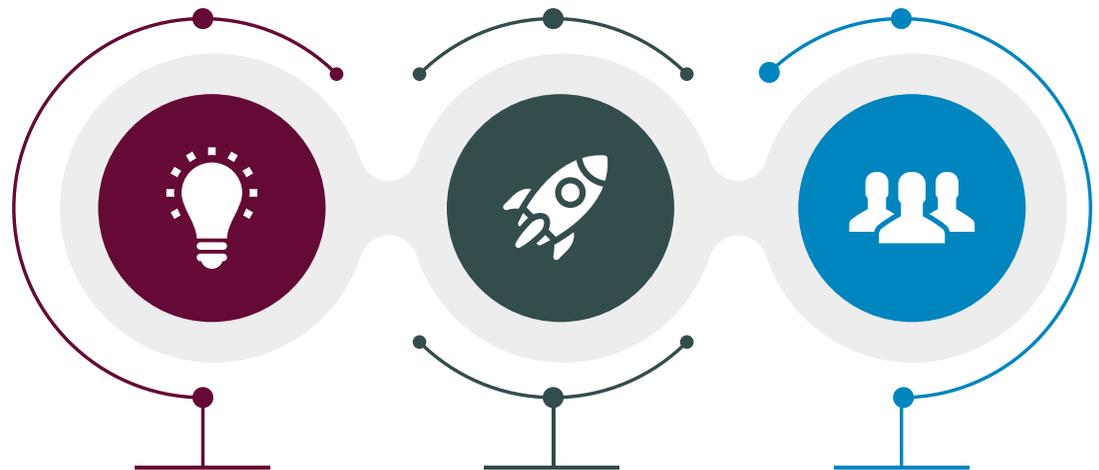
Barbara J. Ryan

SPACE

Angola – Angola National Space Strategy Approved

In the African region, Angola leads in many sectors, ranging from health to the newly emerging Space industry. In May (2019), the National Space Program Management Office launched the 2019 – 2022 Strategic Plan. The Plan augments the 2016-2025 National Space Strategy, the 2018-2022 National Plan, and other several other policies and whitepapers.

The new Plan differs from earlier plans and strategies as it requires routine monitoring, and project development and management.



A strategic diagnosis for the revision and approval of the legislative acts that govern the space activities in the country

The construction, launch and operation of the ANGOSAT-2 satellite and future satellites

To detail 14 growth and sustainability guidelines and their results-based performance indicators



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SPACE

Nigeria - Nigeria Plans Launch of Satellite

The Nigerian Government has continued its expansion into the space race by initiating efforts to build and launch a satellite. These intentions were voiced in May 2019.

Though the plan hasn't been formally released, it is said that the satellite will benefit multiple sectors, including the environment, education, medicine, security, intelligence infrastructure development, and mobile telecommunications. The influence of the National Space Research and Development Agency (NARSDA) has been essential, not only for the Nigerian people but also for the Nigerian economy at large.

A significant reason behind introducing satellites into the vision of NARSDA is to ensure natural disasters are mitigated via the deployment of prediction, detection, monitoring, and management models. The Director-General of NARSDA has also indicated that the Seismic Network and Monitoring Center will be included as part of the geophysical and space-based system.

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This would help Nigeria a great deal in global geodetic and geodynamical activities and monitoring, prediction of seismic activities and mitigation mechanism

”

**Prof Muhammed
NARSDA**



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AI & IOT

Malaysia - Malaysia to get its first AI park

Malaysia, as of May 2019, allocated Malaysian \$1B (US \$240M) to establish an AI Park. The Park will be constructed by three Malaysian and Chinese companies;

- China Harbour Engineering Company;
- G3 Global; and
- SenseTime.

The Park, designed as a cluster will enable focused growth in building AI applications to take advantage of different growing technologies including Computer Vision, Speech Recognition, and Natural Language Processing. The Park will also serve as a base within the country to foster local talent and build a commercial ecosystem for AI and AI research.

The user domains currently in focus are government agencies, banking, manufacturing, and finance, with expectations that this will expand as funding and the Park's reach increases.

While the specific location of the Park has not been decided, cloud service and a research base platform, built by SenseTime, will be created to help support the Park both before and after construction. G3 Global will be responsible for industry partnerships and support.

Though Malaysia has a National Big Data Framework, The country and the Malaysia Digital Economy Corporation (MDEC) will introduce a national AI framework by the end of this year, enhancing the guidelines mentioned in the Big Data Framework.

After the the Framework is launched, Malaysia will have a stronger foundation to help national industry partnerships foster and grow the local AI community.

“

The idea to set up the AI park is vital to building AI research-related public service infrastructure as the base to promote AI technology in Malaysia. Also, this becomes a place for talents to be trained on AI and machine learning,”

”

**Wan Khalik Wan
Muhammad,
Executive Chairman
G3 Global.**



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UK- Regulations for IoT Cybersecurity Updated

In May 2019, the UK updated its Internet of Things (IoT) Regulation requiring the government to consult, and establish guidelines and measures to ensure cybersecurity for all connected devices.

The government has hinted that a labeling scheme requiring all retailers to sell products only with approved labels indicating the safety of the product will be implemented. This rule will be supported by mandatory, device unique passwords and disclosure policies.

The new measures come as the UK gears up for the expansion of the IoT, which will see a considerable rise in the number of household items that are connected to the internet ranging from smart TVs to toys.

This update is imperative to ensure not only security, but also sustained profitability of the industry. Prior to this update, the average cost in 2019 to businesses that have lost data or assets through cyber-attacks was £4,180 (US \$5,298), higher than the £3,160 (US \$ 4,005) reported in 2018.

Thus, the update is meant to affect an encompassing industry, public, and consumer ecosystem.

“

Many consumer products that are connected to the internet are often found to be insecure, putting consumers privacy and security at risk. These new proposals will help to improve the safety of internet-connected devices and is another milestone in our bid to be a global leader in online safety.”

”

**Wan Khalik Wan
Muhammad,
Executive Chairman
G3 Global.**

SPACE

Commercialization of Space

The commercialization of space policy was launched during the Reagan Administration in the USA. In that era, the National Space Policy advocated commercialization of space as one of the most important national goals of the time. In 1984 Congress amended the National Aeronautics and Space Administration Act of 1958 to encourage commercial use of space to its maximum extent possible.

In the last decade, the overall investment from the private sector to the space industry was US \$18B, of which US \$3B was in the last year 2018-2019.

During this time, more and more countries have invited the private sector to join their national space industry. In the past year, a few countries have strengthened their commercialization efforts by introducing calls for invitations, policies, clusters, and technology parks.



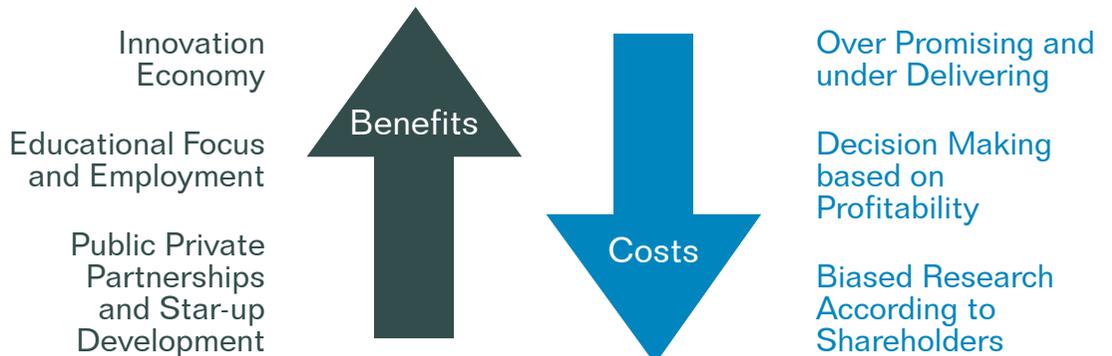
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Country	Policy	Key Points
India	Space Activities Bill	<ul style="list-style-type: none"> • Allowance of Commercial use of space, in the budget session of 2019. • The Bill declares any activity undertaken without prior licensing, or if false information is furnished, or if it pollutes the Earth, airspace, outer space or celestial bodies may result in imprisonment of up to three years and a fine of over Rs 1 crore (??)
United Kingdom	Aerospace Technology Investment Strategy	<ul style="list-style-type: none"> • The UK will invest US \$159M in its Future Flight Challenge program. • Support the development of new technology, including drones and electric planes. • The funding will also support small and medium aerospace suppliers by helping boost their competitiveness.

SPACE

<p>United States of America</p>	<p>FCC Reestablishes Space Debris Rules</p>	<ul style="list-style-type: none"> • Approval of a company's license for 120 Synthetic Aperture Radar (SAR) satellites has reignited an internal debate over its power to demand space debris mitigation plans from commercial operators. • The Theia decision requires the company to submit a revised orbital debris mitigation plan before it can get final FCC approval for its satellites
<p>United States of America</p>	<p>National Timing Security and Resilience Act, 2018</p>	<ul style="list-style-type: none"> • No funding has been provided for the new law. • Timing has been an area of increasing focus and concern for both industry and government. • The Air Force will now use its authority to b outsource building of the constellations for military grade satellites. Lockheed Martin is the prime contractor for the satellites and the ground systems, with Northrop Grumman providing the XDR payloads.

The advocates of privatization are many, but despite the many experiments across the last 50 years of the space race and the attempt at commercialization, the pros and cons have remained vastly the same.



SPACE

The growth of the private sector, in percent value of the space industry has oscillated between 30-40% since the beginning of the 2000's. However, this percentage is not yet enough to sustain an autonomous private space industry. The intervention of governments to ensure international decorum and maintain national leadership is still of the highest priority.

With any young and growing industry, to create an autonomous segment will require innovation, perseverance, and investments of both time and money.

Over the next decade, we will likely see greater involvement of the commercial sector smaller, emerging-economy countries that will require additional assistance to join the space race. The private sector will also likely increase its influence in influencing policies that will support further business.



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