

EXCLUSIVELY PREPARED FOR WGIC MEMBERS

POLICY WATCH

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

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Foreword



The February issue of the World Geospatial Industry Council (WGIC) Policy Watch describes the efforts of several countries in three important areas – plans for investing in space (UAE), drone laws and regulations (Canada, India and South Africa) and a national roadmap and ethical guidelines for Artificial Intelligence (AI) (the Russian Federation, and Dubai, UAE, respectively).

In each instance, these countries, and in the case of Dubai, a city, is taking action to get-out-ahead of a rapidly growing industrial and technological landscape. The market estimates for drones, particularly in India, and the spending projections for space and AI are substantial. In addition to the economic benefits derived from these evolving technologies, it is clear that the public safety and/or ethical implications are also of interest.

Lastly, you will see that most, if not all, of these initiatives were launched just last month (January 2019) – another measure of how rapidly the geospatial industry is becoming embedded in the fabric of national and local plans and programs.

Please join me in reading the February issue of Policy Watch, and again, feel free to provide any feedback so that we may better address your needs.

A handwritten signature in blue ink that reads "Barbara J. Ryan". The signature is written in a cursive, flowing style.

Barbara J. Ryan

UAE's National Space Investment Plan to build a competitive space economy

On January 2019, the United Arab Emirates (UAE) announced a new National Space Investment Plan to establish UAE as a regional and global hub for commercial space activities and advanced research and development. The Board of Directors of the United Arab Emirates Space Agency (UAESA) have decided that the adoption of the investment plan needs to be in tandem with the socio-economic objectives of the national strategic plans i.e. the UAE Vision 2021 and UAE Centennial 2071. The plan also contributes to UAE's Science, Technology & Innovation Policy, and to the UAE Strategy for the IVth Industrial Revolution to further market growth, innovation and investments in the space industry.

The focus of the Space Investment Plan is to build a 'competitive national space economy'. The plan envisions a knowledge and innovation based 'phygital' technology ecosystem, whilst while also encouraging small and medium enterprises (SMEs). Based on the National Space Policy of 2016, the investment plan calls for an inclusive approach to stimulate investments in the space industry, facilitate commercial space activity, further advancements in research and development in order to establish UAE as a regional and global hub for space activities.

UAE's National Space Law is a forward-looking plan formulated to provide confidence to investors whilst while balancing risks and liabilities with the hope of creating an environment that attracts investments in old and new space businesses. UAE's space sector has received a staggering amount of investment over the few years, exceeding Dh 22 Billion (US\$ 5.9 Billion approx.), with an estimated 10% (and more) growth in expenditure on space projects in the past two years.

The UAESA is also focusing on developing the local space industry capacity in UAE. In order to further its goal, the UAESA recently signed a cooperation, collaboration and funding agreement with Krypto Labs, a global incubator, in order to globalize the 'space-startup' landscape in the country. The agreement with Krypto Labs is positioned to enable local entrepreneurs to develop innovate and commercially sustainable geospatial and remote sensing solutions for key focus areas such as land management, coastal security, city planning and disaster management. The UAESA Space Investment plan advances the aforementioned initiative by engaging both local and foreign space organizations in non-space related sectors such as oil and gas, smart cities, etc.

UAE, in recent years, has begun to pay critical attention to its space investment strategy by diversifying its investments strategically from traditional companies to founder-led start-ups. The New Space Investment Plan is a step in the same direction with an intent to increase both domestic and foreign investments in the UAE space economy.

Important projects of UAE space economy

'Hope Probe'
Emirates
Mars Mission
planned to be
launched in
2020

Mars 2117
long term plan
for building a
self-sustaining
colony on Mars
in 100 years

**Success
of Telecom
Operators –
Yahsat and
Thuraya**

**Launch of the
first locally
designed and
built Earth
Observation
satellite, Khalifa
Sat**



Reference

<https://spacewatch.global/2019/01/uae-space-agency-unveils-details-of-national-space-investment-plan>



Canada's New Drone Law to encourage innovation

On January 2019, the Federal government of Canada introduced the new Drone law which is to be enforced by the Transport Canada and the Royal Canadian Mounted Police (RCMP) on June 1, 2019. The law applies to all drones that weigh between 250 grams and 25 kilograms and operate within the drone pilot's visual-line-of-sight, regardless of the purpose of the flight. The new laws have been formulated to encourage innovation and economic growth that drones are believed to represent.

The new regulations introduce two main categories of drone operations: basic and advanced. The categories are based on distance from bystanders and airspace rules.

Qualifications for Basic Operations

- The user must fly the drone in uncontrolled airspace
- The user must fly the drone more than 30 meters (100 feet) horizontally from bystanders
- The user must fly the drone over bystanders

Qualifications for Advanced Operations

- The user must fly the drone in controlled airspace
- The user must fly the drone over bystanders
- The user must fly the drone within 30 meters (100 feet) of bystanders (measured horizontally)

In addition, common regulations for both basic and advanced categories are:

- The user must register and mark the drone with its registration number;
- The user must pass an online exam and get a pilot certificate for basic or advanced operations;
- The minimum age of the drone pilot must be 14 for basic and 16 for advanced operations, unless supervised by a person having proper certificates; and
- The user must stay below an altitude of 122 m (400 feet) above ground level and stay away from air traffic.

Drones that lie outside of these two categories need to apply for a Special Flight Operations Certificate (SFOC). Even though the new law does not allow drones to carry 'living things'; operators with SFOC certificate will be able to transport items such as ammunition, explosives and weapons.

Until the new rules are enforced, all recreational drone pilots are required to abide by the rules of the Interim Order Respecting the Use of Model Aircraft while all commercial (work/research) drone pilots are required to follow the conditions as listed in their SFOC. Additionally, the law prohibits the drone pilots to fly near airports and emergency areas and under the influence of drugs and alcohol. All drone pilots are also subjected to the Criminal Code under all provincial, territorial, and municipal laws governing areas such as privacy and trespassing. Anyone found violating the said regulations would have to pay an additional fine of up to \$25,000 and/or prison. This applies to drones of any size irrespective of its purpose.



Reference

<https://www.tc.gc.ca/en/services/aviation/drone-safety/flying-drone-safely-legally.html>

South Africa's Drone Regulations updated

The South African Civil Aviation Authority (SACAA) recently released its updated drone rules and regulations. After the first drone regulation that came into existence on 1st July 2015, SACAA acknowledged the issues that both commercial and hobbyists drone operators continued to face. In 2018, the SACAA, in consultation with the commercial drone industry assured the drone pilots of reviewing the already existing rules and regulations while focusing on core issues such as operator certification, aircraft registration, licensing requirements etc. The new drone rules and regulations have been formulated after deliberations with the Commercial Unmanned Aircraft Association of South Africa (CUAASA).

The new drone regulation of South Africa necessitates the commercial drone operators to get a pilot's license, whereas private or recreational users of the remotely piloted aircrafts are not required to be involved in any certification process. SACAA aims to encourage the drone industry to grow but in a formalized and legally compliant manner.

In terms of inappropriate and illegal use of drones, the SACAA has issued a warning for the errant drone pilots with a fine of Rand 50,000 (approx. USD 6,200) or jail time; or in some cases both. In order to uphold the drone regulations, SACAA has urged to the citizens of South Africa to report any violators of the regulations to SACAA or to the South African Police Services (SAPS) for investigation and potential enforcement action.

There has been much speculation about drone regulations in South Africa, resulting in decrease in investment for the industry as well as a drop-in tourism, which are both expected to rebound now that the updated regulations have been released.



Reference

<https://boksburgadvertiser.co.za/329072/heres-what-you-need-to-know-about-drones/>



India's Draft of Drone Policy 2.0 aimed to exploit commercial potential of Drones

India is expected to become a large market for drones by 2021 valued at approximately US\$ 886 million. Following the release of the Drone Policy 1.0, the Ministry of Civil Aviation, India, publicly released the draft of Drone Policy 2.0 on 15th January 2019. The draft policy document focuses majorly on Beyond Visual Line of Sight (BVLOS) Operations while at the same time creating an environment to facilitate growth of the drone ecosystem. The BVLOS Operations is important from the commercial drone industry point of view as it enables them to conduct complex operations without having a pilot conduct the drone during take-off or landing.

The new rules and regulations in the draft Drone Policy 2.0 are expected to bind drone operations in public spaces, especially on commercial scale. Additionally, while the draft Drone Policy 2.0 is awaiting feedback from the public and commercial entities (and all stakeholders), the introduction of the regulation as an amendment to the existing civil aviation regulation (CAR) 1.0 is still under purview. If not as an amendment to CAR 1.0 (or Drone Policy 1.0), the regulation 'maybe introduced as a separate set of Civil Aviation Regulations notwithstanding the conditions laid down under CAR 1.0'. Further, the draft policy recommends establishing a Drone Directorate within the Directorate General of Civil Aviation (DGCA).

The draft document aims to increase uninterrupted use of drones, and easier usage by the pilots and to achieve this, the draft policy conceives of 'designated drone corridors. In this regard, the draft policy document stresses on establishing a real-time UAS Traffic Management System (UTM) to manage traffic created in the drone corridors by the UAS. Additionally, the document suggests developing airworthiness standards and certification so as to allow drones to fly in the sky. It specifically mentions, that the standards so defined shall be independent of operational and environmental risks. Other key suggestions mentioned in the document addresses the issue of uninterrupted and smoother functioning of drones includes obtaining professional certificates to operate independent drones and obtaining a 'Proof-of-concept' certificate to operate drones during night. The draft policy also stipulates limiting the maximum life-cycle of each drone type.

The draft drone policy is targeted at understanding and making use of the commercial potential of drones. As already seen in the west, the draft policy recommends the use of drones for delivering regular goods to delivering packages of high importance or emergencies which may include life-saving drugs, bodily organs, blood, etc. The main intention of involving drones in such high-risk deliveries is to create a supply chain relay network where factors like temperature and timing can be controlled accurately.

While the Drone Policy 1.0 did not include any feature of Foreign Direct Investment (FDI), one of the critical features of the draft Drone Policy 2.0 is the proposal of allowing 100% FDI in the UAS industry to provide the much-needed impetus to the local UAS industry.



Reference

<https://www.financialexpress.com/industry/sme/drone-startups-finally-see-high-altitude-growth-with-new-regulations-in-place/1442327/>

World Bank - Announces Support to Geospatial Information Management

The World Bank and the UN-GGIM collaborated in the development of the Integrated Geospatial Information Framework (IGIF), which was endorsed at the eighth session of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) from 1 - 3 August 2018 at the United Nations Headquarters in New York. This framework and subsequent implementation guide are designed to help member states to better manage their geospatial information at national or sub-national levels.

As next steps, the World Bank will provide assistance to countries to apply the IGIF at the country and local levels. The first country level Action Plan has already been prepared for Palestine and, at the sub-national level, for Tirana, Albania. The work is underway in other countries such as Vietnam and Guyana. Simultaneously, the World Bank is working with partners to advance plans for more countries.

In this context, the World Bank announced a call for action and an ambitious goal to help at least 30 countries in three years as mentioned in box as.

The process of requesting World Bank support for investment in geospatial information involves the responsible agency for geospatial information infrastructure to send a request to the World Bank through their Ministry of Finance. Once the request has been formally received and accepted, the Bank mobilizes a team of experts to work with governments to prepare the Action and Investment plan of the detailed project.

The above announcement was made at the UN-WGIC event in Dequing, China. For further information on this piece please contact Kristyn Schrader-King, Communications Lead at Kschrader@worldbank.org

World Bank's Call-for-Action for Geospatial Information Management

- Development of the geodetic reference framework
- Financing of Continuously Operating Reference Stations (CORs)
- Collection of Fundamental Data
- Establishment of a geoportal
- Financing equipment/computers/systems
- Training and capacity building programs
- Support in drafting laws and regulations in this area



Moganshan Declaration Issued at the First UN-WGIC

The first United Nations World Geospatial Information Congress (UN-WGIC) was held in Deqing, China from 19-21 November 2018 under the purview of the United Nations. The theme of this year's UN-WGIC, the Geospatial Way to a Better World, was aimed at encouraging collaboration at regional and global levels for enhancing the knowledge and application of geospatial information, and to address the advancements in geospatial science, emergence of new technologies, formulation of new policies, and practices to address the 2030 Agenda for sustainable development.

To further the use of geospatial information from a socio-economic perspective, the Moganshan Declaration was issued by all participants of UNWGIC to foster cross-border, and cross sector collaboration for sharing of geospatial information. Few key insights from the Moganshan declaration are as follows:

- Recognition of the Integrated Geospatial Information Framework as a fundamental and enabling methodological framework to achieve the 2030 Agenda
- To adopt strategies to bridge the geospatial digital divide in order to achieve global 'digital transformation'
- To call upon all Member states, institutions, academia, industry and individuals to explicitly connect geospatial information to national development agenda
- To enable innovative technologies such as the cloud, big 'geospatial' data analytics, machine learning, geospatial knowledge services and integrated information systems, as suggested by Integrated Geospatial Information Framework to ensure such capabilities are easily reachable and useable by developing countries
- To encourage collaboration among all international stakeholders engaged production, management and distribution of geospatial data, technologies and innovation to democratize and transfer these technologies and share data through the enabling global mechanism of the SDGs

In conclusion of the UNWGIC event, the participants proposed to hold the next convention in four years' time to stimulate the global geospatial development progress.

World Geospatial Industry Council (WGIC) participation

The World Geospatial Industry Council (WGIC) was represented by CEO, Sanjay Kumar. Mr. Kumar was conferred the Global Geospatial Industry Ambassador by the UNGGIM for his significant contribution in assembling the key stakeholders from the industry, research institutes, governmental bodies and development organizations to promote the need and understanding of geospatial information.



Reference

<https://global.mofyi.com/201811/unwgic/Moganshan%20Declaration.pdf>

UK Government's Aerospace Sector Deal Combines Business Ambition with that of Policy Makers

On 6th December, the UK Government's Secretary of State for Business, Energy and Industrial Strategy published its Aerospace sector deal as part of its Industrial Strategy. The deal brings forth the government's commitment to set aside funding of approx. £125 million (US\$ 159 million) as defined the Future Flight program which shall be matched by the industry partners under the Industrial Strategy Challenge Fund. The fund is intended to be used for innovations in building electric aircrafts, automated drones, and urban air mobility vehicles to boost the overall competitiveness in the sector.

The aerospace sector is critical to the UK government's socio-economic development strategy. The strategy aims to build an all-inclusive aerospace ecosystem of government, industry and the users. As part of the strategy, the UK government works in partnership with the industry to leverage on its technological capabilities. Additional collaborative opportunities are seen with the UK Aerospace Research Consortium of Universities to educate the aviation industry about the emerging technologies in the sector while preparing ground for R&D collaboration.

Under the aerospace sector deal, an additional £10 million has been held in reserve for a productivity improvement scheme named 'Supply Chain 21 Competitive and Growth'; and the UK's National Aerospace Technology Exploitation Programme which aims to boost research and development projects led by small and medium-sized enterprises – is to be expanded with an additional £13.7 millions of government funding and £10 million from industry partners.



The aerospace sector strategy signifies a commitment by the UK government to maintain the country's position as an attractive location for the global aerospace and aviation industries. The strategy aims to maintain a complimentary relationship between government and industry to respond to socio-economic and environmental challenges.



Reference

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/763781/aerospace-sector-deal-web.pdf

<https://www.gov.uk/government/publications/aerospace-sector-deal/aerospace-sector-deal>

Canada – Quebec Project “AeroMontreal” receives funding under Federal Innovation Strategy

On 9 November 2018, the Government of Canada adopted the Federal Innovation Strategy. The strategy is focussed on supporting growth of businesses and communities via innovation and entrepreneurship. Built in consultation with key economic development players of the region, the Federal Innovation Strategy lists 4 priorities and 14 targeted actions. The four priorities set under the strategy are:

- (a) Innovation and Clean Technology (inclusive of emerging technologies and incubation and accelerator programs)
- (b) Growth and Exports (supporting digitalization and automation of business, attract investments, facilitate exports and access to markets)
- (c) Entrepreneurial Talent (Foster start-ups and entrepreneurship, and digital skills development)
- (d) Inclusive Growth in all Regions (promote innovation, ensure competitiveness, support local entrepreneurship)

In its first phase, under the Federal Innovation Strategy, Québec's aerospace cluster, the AéroMontréal, received CAD 2.977 million (USD 2.26 million) in funding for the time period 2018-2021. The cluster aims to use the funding to further develop the StartAero360° initiative which aims to support the commercialization of the products introduced by the SME's of the Québec region. The goal of the project is to provide guidance for SMEs in the aerospace and related sectors (e.g. artificial intelligence, additive manufacturing, clean technology, virtual design) in establishing strategic partnerships and developing consolidated value propositions to enhance technology and innovation in Quebec's aerospace value chain.

The StartAero360° initiative, with a budget of \$4.385 million, is aimed at providing a stable ground to 30 small and medium size enterprises (SMEs) and entrepreneurs for over a period of 3 years. The initiative aims to help the SMEs grow by way of enabling them to create commercially viable innovative products while simultaneously exposing Canada's SMEs to the international market by exporting niche innovative products and technologies.



Reference

<https://www.canada.ca/en/economic-development-quebec-regions/news/2018/11/09-background-projects-launch-of-federal-strategy-on-innovation-and-growth-for-the-quebec-regions.html>

USA – FCC Approves use of Galileo GNSS

The U.S. Federal Communications Commission (FCC) has approved a request from the European Commission for fractional use of Galileo GNSS signals by the United States.

Consumers and industry in the U.S. will be permitted to access certain satellite signals from the Galileo system to be used in combination with the U.S. Global Positioning System (GPS). Specifically, the FCC ruling permits access to two Galileo signals. The E1 signal is that which covers transmissions in the 1559-1591 MHz portion of the 1559-1610 MHz Radio-navigation-Satellite Service (RNSS) frequency band and the E5 signal is that which is transmitted in the 1164-1219 MHz portion of the 1164-1215 MHz and 1215-1240 MHz RNSS bands.

These are the same RNSS bands in which GPS satellite signals operate. The Order does not grant access to the Galileo E6. The FCC noted that granting access to the Galileo E6 signal could constrain U.S. spectrum management in the future in spectrum above 1300 MHz, where potential allocation changes are under consideration.



Reference

<https://docs.fcc.gov/public/attachments/DOC-355098A1.pdf>

Turkey's Space Agency Established

The Turkish Space Agency was officially established with the Presidential Decree 2018/23 of 13th December. The Agency has been assigned to prepare and implement the national space program and strategic plans. The agency is going to be based in Ankara and will be allocated 20% of the space at the Turkish Scientific and Technological

Research Council (TÜBİTAK).

The new agency and the national space program under its umbrella is working towards strengthening its own aerospace industry, by way of investing in improving the scientific infrastructure, and increasing skilled human resources in space technology. The agency aims to advance its own capacities to establish a competitive local industry.



Reference

<http://www.mevzuat.gov.tr/MevzuatMetin/19.5.23.pdf> (in Turkish)

<http://www.hurriyetdailynews.com/turkey-launches-national-space-program-139681>

U.S.-Australia – Cooperation Agreement on Space Research, Exploration, and Utilization

As of November 2018, the United States of America and the Commonwealth of Australia have become treaty allies in space research, exploration and utilization.

The affirmation of this cooperation draws on the 25-year agreement signed in October 2017 for continued cooperation on space cooperation, inclusive of space tracking. The treaty focusses on:

- Cooperating on Space Situational Awareness (SSA) to maximize defense capabilities, monitoring environmental changes, avoiding space congestion and collisions, and protecting against exploitation from the growing counter-space capabilities of other countries and region
- Recognizing the value in United States-Australia on space research, exploration, and utilization, including terrestrial research, commercial
- The Department of State, USA to support and facilitate international cooperation with Australia on space research, exploration, and utilization through diplomatic efforts, including through the Australia-United States Ministerial Consultations (AUSMIN) forum and multilateral initiatives with Japan, Canada, the European Union, and other partners of both the United States and Australia.



Reference

<https://www.congress.gov/bill/115th-congress/house-resolution/1052/text>



USA – Passes National Timing Security and Resilience Act of 2018

On December 4th, President Trump, signed the Frank LoBiondo U.S. Coast Guard Authorization Act of 2018. This Act is inclusive of the National Timing Security and Resilience Act of 2018.

The Act specifies the Secretary of Transportation to establish a terrestrial backup timing system for GPS within two years i.e. by the end of 2020. The act ensures that in case there is an event or scenario where GPS signals are not available effectively, or is corrupted, unreliable or even unavailable, the terrestrial backup timing system will ensure the availability of uncorrupted and reliable timing signals for both the military and civilians

The Act suggests the backup system to be terrestrial, wireless, synchronized to the Coordinated Universal Time (UTC), wherein disruptions to the signal is nearly not possible, it is easier to deploy the system to remote locations, and further expand the system to provide position, navigation, and timing (PNT) services. Additionally, in order to establish the system, the government, if willing, should be able to do so via employing a commercial entity. In such a case, there needs to be several provisions that need to be established beforehand in the contract.

The new law is not a funding bill, yet, the Congress appropriated US\$ 10 million for technology demonstrations in 2018. The system so developed under the bill, aims to:

- (1) Reduce critical dependencies on the GPS network;
- (2) Ensure the availability of uncorrupted and non-degraded timing signals for military and civilian users if GPS timing signals are corrupted or otherwise unavailable; and
- (3) Be land-based, operational in 2 years, and capable of operation for 20 years.



Reference

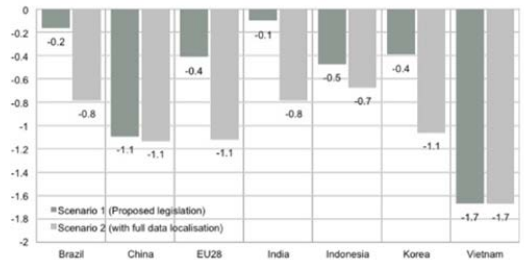
<https://www.congress.gov/bill/115th-congress/senate-bill/2220/text>



Kenya – Data Privacy Bill Released

The new Data Privacy Bill released by Africa’s ‘Silicon Savannah’, Kenya aims to safeguard the interests of the citizens and consumers alike. The bill outlines the duty of the government and the companies to inform the internet users of the ‘what’, ‘how’, ‘why’ of personal data that is being collected and to ensure that proper measures are being undertaken to protect the information in case of data breaches. In addition, the bill gives individuals the right to request for their data to not be collected, to be corrected or to be deleted, if required.

Many of the requirements stated in this bill, and the focus on individuals’ control of their personal data, echo Europe’s new General Data Protection Regulation (GDPR). The move is endorsed by the African Union and has been adopted under the African Union Convention on Cyber Security and Personal Data Protection, which demands the member states to adopt legal frameworks for data privacy and cybersecurity.



Change in GDP, with proposed legislation and full data localization

A study conducted on economic effects in such countries and their National Income with standard data protection proposed and full data localization shows a higher reduction in the GDP with data localization than without. The delivery of data localization in the Kenyan data privacy bill requires the businesses collecting user data, to maintain this data within the borders of the country. In retrospect, such stringent aspects of the legislations are expected to hinder the growth of the Kenyan economy.

- Small, and medium sized enterprises (SMEs) are expected to face a worrisome situation, since they will not be able to adhere to the high costs of change and will not be able to globalize their reach.
- Large enterprises that use cloud computing technology to carry their data out of borders to present to data experts will face obstacles in carrying on with this process

Kenya’s new Data Privacy Bill is currently awaiting review in the parliament with the Ministry of Information and Communication Technology.



Resources

<http://www.ict.go.ke/wp-content/uploads/2016/04/Kenya-Data-Protection-Bill-2018-14-08-2018.pdf>

Image Source: The Cost of Data Localization: Friendly Fire on Economic Recovery. ECIPE Paper No. 8/2014

India – Draft National Policy on Electronics, 2018 released

On October 10, 2018, the Ministry of Electronics and Information Technology (MeitY) released the draft of the National Policy on Electronics (NPE), 2018, inviting comments and feedback. The draft NPE 2018, after the final approval, will replace the existing National Policy on Electronics 2012 (NPE 2012).

The aim of the National Electronics Policy is to achieve a turnover of approximately US\$ 400 Billion in domestic electronics by 2025. Aimed at encouraging industry-led research and development and innovation in all sub-sectors of electronics, the draft NPE 2018 plans to create an all-inclusive startup ecosystem in new age technologies such as IoT, 5G, artificial intelligence (AI), and machine learning, along with their applications in areas such as defense, agriculture, health, smart cities and automation.

The Government attaches high priority to electronics hardware manufacturing, and it is one of the core pillars of both “Make in India” and “Digital India” programmes of Government of India. The Prime Minister of India has also invited all the relevant MSMEs including startups to enlist themselves on the platform to benefit from the revised procurement policies.



Reference

http://meity.gov.in/writereaddata/files/Draft_NPE_2018_10thOct2018.pdf

Australia – Queensland introduces Building Information Modelling Principles

The Australian government launched the State Infrastructure Plan in March 2016. Under the aegis of the State Infrastructure Plan, and recognizing the opportunities and benefits of the plan, the Queensland Government released BIM principles in November for state-wide implementation.

The Queensland Government in its 'Principles for BIM implementation' specifies the use of Open BIM – which includes using open data interoperable standards. Additionally, the BIM system is expected to be interoperable with other information systems such as asset management systems and geographic information systems (GIS). Additional focus of BIM principles includes:

- Developing BIM capability from government to industry
- The Queensland BIM applications will use an open BIM approach so that BIM information, systems, standards and processes support interoperability and inter-connectivity.
- Define the information being managed in a central repository by an asset owning/maintaining agency (or an agency such as Queensland State Archives or CITEC).

These principles apply to:

- Queensland Government departments, agencies and statutory authorities
- The design, delivery and asset management of all new construction projects with a capital cost of US\$ 50 million or more
- Alterations, extensions, renovations and repurposing of existing assets
- Projects where government departments, agencies and statutory authorities see the value in BIM to manage existing assets or projects with an estimated capital value below US\$ 50 million.



Reference

<http://dsdmip.qld.gov.au/resources/guideline/infrastructure/bim-principles.pdf>

<http://dsdmip.qld.gov.au/resources/plan/sip/sip-part-b2.pdf>

Australia – Telecommunication Bill, 2018 and its bearing on Businesses

In December 2018, Australia released the new Telecommunications Bill. The new bill focusses on data access, data availability, and encryption of consumer and relevant data. At present, the bill is under review by the Parliamentary Joint Committee on Intelligence and Security (PJCIS). This bill amends the Telecommunications Act 1997 and draws from the related, Australian Security Intelligence Organisation Act 1979.

The bill focuses mostly on easing the existing mandated encryption standards, which may put private information at risk. It proposes to create two new legal mechanisms for Australian Government Agencies to request data from companies in the telecommunications supply chain.

These mechanisms include:

- Technical Assistance Request: which asks companies to provide voluntary assistance,
- Technical Assistance Notices: which require all telecom companies to provide private data, as long as this is 'reasonable, proportionate, practicable, and technically feasible'.
- Telecom companies will be liable to pay exorbitant fines for non-compliance with this act. The first reading of the bill proposes that internet companies, device manufacturers, and social media hosts may be fined up to AUS\$ 10 million (US\$ 7.24 million) for each instance of non-compliance. Individuals found in non-compliance may be fined up to AUS\$ 50,000 (US\$363,000).

Multi-national companies are now expected to align themselves with EU's GDPR and this bill, facing a hefty fine if found in non-compliance both ways. Since Australia is part of the Five Eyes Intelligence Alliance with the USA, UK, Canada and New Zealand, the fate of this bill will have a far-reaching impact, beyond just Australia.

The New South Wales government also released the Cyber Security Strategy, which forms a delicate balance between the EU's GDPR and so may vary from that of the Telecommunications and Other Legislations Amendment (Assistance Access) Bill.

The Department of Industry will partner with AustCyber, a company that aims to support cyber security sector, within the next 12 months to establish the NSW Cyber Security Innovation Node, which will help connect public, private and research sectors.



Reference

Resources:https://parlinfo.aph.gov.au/parlInfo/download/legislation/bills/r6195_first-reps/toc_pdf/18204b01.pdf;fileType=application/pdf

https://www.industry.nsw.gov.au/__data/assets/pdf_file/0003/193665/NSW-cyber-security-industry-development-strategy.pdf

Russia – National AI Roadmap Draft to be Strengthened

In October 2018, Moscow released a new version of the 2019-2021 plan for Digital Technologies which called for spending US\$ 287 million for leading research centers and start-ups, \$145 million to develop products, services and platforms, and US\$ 287 million for technology applications.

In January 2019, Russia confirmed adding details, deadlines and dedicated funding to its draft national roadmap for the development of artificial intelligence technologies and expects to release the final version by mid-year. In this regard, Moscow intends to devote more funding to Artificial Intelligence adjacent R&D.

The AI Conference, held in Moscow in April 2018, introduced a draft AI roadmap, a list of suggested public-private partnerships and notes on key R & D steps needed to make them happen. The suggestions included ideas such as establishing an AI and Big Data consortium; creating a state system for AI training and education; monitoring AI developments globally and establishing National Artificial Intelligence Center.

The draft is to provide for the creation of a list of projects that will help identify and remove barriers to the development of end-to-end technologies, as well as predict the market demand for artificial intelligence in the country.



Reference

<https://aiconference.ru/en/article/vedushchie-rossiyskie-startapi-i-kompanii-v-sfere-ai-i-mo-94277>

Dubai – Launches Guidelines for Ethical AI

In January 2019, the Smart Dubai Office launched the new 'Ethical AI Toolkit', a handy booklet for providing advice to individuals and organizations on AI services. As part of this toolkit, Smart Dubai has also launched the world's first city-government endorsed AI Ethics Self-Assessment Tool. The AI Ethics Self-Assessment Tool is built to enable AI developers and operators to evaluate the ethical level of their AI system, if implemented using Smart Dubai's AI Ethical Principles and Guidelines.

Smart Dubai's Ethical AI Toolkit addresses key issues around establishing regulatory principles relating to Artificial Intelligence. The toolkit includes an introduction to the rapid evolution of the AI landscape and the fragmented approach to ethics. As AI has evolved, each company has dealt with ethical issues in their own way.

The toolkit intends to develop an understanding to reduce the ambiguity around what constitutes ethics in AI. Ambiguity around ethics in AI is believed to suppress innovation due to the unsure actions of the government. This leads to entities hold back their research and development and curtail investments in AI. Additionally, the toolkit aims to build and improve confidence in AI systems so that the citizens are able to see that companies are following the advices published online in a transparent manner.



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