

# Innovation promotion in India

## National Institution for Transforming India, Government of India

<http://niti.gov.in>

Atal Innovation Mission (AIM) including Self-Employment and Talent Utilization (SETU) is Government of India's endeavour to promote a culture of innovation and entrepreneurship. Its objective is to serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses and other self-employment activities, particularly in technology driven areas.

The Atal Innovation Mission shall have two core functions:

- Entrepreneurship promotion through Self-Employment and Talent Utilization, wherein innovators would be supported and mentored to become successful entrepreneurs
- Innovation promotion: to provide a platform where innovative ideas are generated

### Atal grand challenge awards

The factors holding back rural and semi-urban India are lack of 24/7 electricity, roads that are usable round the year, clean water, suitable housing, access to basic healthcare, quality education, lack of farm mechanisation and employable skills. While state-of-the-art technology can address a number of these challenges, the existing solutions have been out of reach due to their excessive high costs.

Atal Grand Challenge (AGC) Awards, under the Atal Innovation Mission, has the objective of developing novel disruptive technologies that are ultra-low cost, low maintenance, durable and customised to the local conditions of India. AGC will award grand prizes to anyone who delivers in a timely manner the desired solution as per the challenge specific criteria. NITI Aayog has called on the national and the international community to join the initiative and in finding solutions to the most intractable problems.

Wide spread adoption and deployment of these disruptive solutions will result in economic transformation of the bottom 70% and beyond of the population and elimination of poverty. An additional objective is to further energize the local scientific and engineering community/academic institutions and engage them in innovative research and development towards finding novel solutions. Yet another objective is to make India a source of innovation and novel products to address similar problems faced by bottom 5 billion people of the world and in the process also accelerate our own economy.

### Atal Tinkering Labs

With a vision to 'Cultivate one Million children in India as Neoteric Innovators', Atal Innovation Mission is establishing Atal Tinkering Laboratories (ATLs) in schools across India. The objective of this scheme is to foster curiosity, creativity and imagination in young minds; and inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc.

ATL is a work space where young minds can give shape to their ideas through hands on do-it-yourself mode; and learn innovation skills. Young children will get a chance to work with tools and equipment to understand the concepts of STEM (Science,

Technology, Engineering and Math). ATL would contain educational and learning 'do it yourself' kits and equipment on – science, electronics, robotics, open source microcontroller boards, sensors and 3D printers and computers. Other desirable facilities include meeting rooms and video conferencing facility.

In order to foster inventiveness among students, ATL can conduct different activities ranging from regional and national level competitions, exhibitions, workshops on problem solving, designing and fabrication of products, lecture series etc. at periodic intervals.

AIM will provide grant-in-aid that includes a one-time establishment cost of Rs. 10 lakh and operational expenses of Rs. 10 lakh for a maximum period of 5 years to each ATL.

### Atal Incubation Centers

AIM intends to establish 'new' incubation centres (Atal Incubation Centres) across India by providing them with financial support. AICs would further support and encourage start-ups to become successful enterprises. They would provide necessary and adequate infrastructure along with high quality assistance or services to start-ups in their early stages of growth.

AICs would be established in subject specific areas such as manufacturing, transport, energy, health, education, agriculture, water and sanitation etc. Each AIC would be required to choose at least one area for specialisation.

AICs can be established either in public/private/public-private partnership mode. These can be established in:

- Academia - This includes higher educational institutes and R&D Institutions.
- Non-academic - This includes Companies/ Corporates/ Technology parks / Industrial Parks/ any individual/ group of individuals.

AIM will provide a grant-in-aid of Rs. 10 Crore to each AIC for a maximum of 5 years to cover the capital and operational expenditure cost in running the centre. The applicant would have to provide a built up space of at least 10,000 sq. ft to qualify for the financial support.

### Scale-up support to established Incubators

The scheme envisages to augment capacity of the Established Incubation Centres in the country. It will provide financial scale-up support to enable Established Incubation Centres. The scheme would radically transform the start-up ecosystem in the country by upgrading the Established Incubation Centres to world-class standards.

- Legal entity registered in India as public, private or public-private partnership.
- Legal entity must be in operation for a minimum of three years.

Grant-in-aid support of Rs. 10 crore will be provided in two annual instalments of Rs. 5 crore each.

# Catalyzing digital innovation ecosystems in Malaysia

Malaysia Digital Economy Corporation Sdn Bhd, Malaysia

<https://www.mdec.my>

The future lies in innovation, and at Malaysia Digital Economy Corporation (MDEC), we believe that being ahead of the technology curve is the way to future-proof businesses. Big Data Analytics (BDA), the Internet of Things (IoT), E-Commerce, and Data Centre & Cloud are our key focus areas that have been identified as catalysts that will kickstart and sustain an ecosystem of digital innovation, keeping us at the forefront of technology.

## Big Data Analytics (BDA)

Malaysia is one of the few countries with a structured Big Data Analytics (BDA) roadmap to untap the value of big data. At the turning point of digital revolution, the powers of big data can be used to describe a problem, assess a situation, forecast results, and prepare solutions. Business owners, government, and citizens all stand to gain from Malaysia's vision as ASEAN's leading BDA solution hub.

To make this vision a reality, MDEC is spearheading this platform to lead efforts and create conversations. MDEC works to encourage and increase BDA adoption across all sectors by developing talent in the field of data science and enabling strategic partnerships, while introducing upskilling efforts and spurring integrated initiatives.

Our strategic initiatives are:

- Generating (Increasing) the usage of BDA in private sectors.
- Catalysing the adoption and usage of BDA in public sectors.
- Building the BDA industry in Malaysia.

To propel MDEC forward as an industry leader in ASEAN, we have set up the ASEAN Data Analytics eXchange (ADAX), a regional platform that brings together innovative talent development models and showcase the latest BDA technologies. A national initiative to benefit Malaysia, ADAX has the unique opportunity to serve a greater national agenda. This aspiration can only take flight by building a Big Data community through shared values, skills building and collaboration around a robust data analytic ecosystem.

By piloting advanced data analytics use cases for the ASEAN region and providing a co-working location for BDA start-ups and accelerators, ADAX has a unique opportunity to catalyse the migration of traditional organisations to become Data Driven Organisations.

## Data centre & cloud

Malaysia's Data Centre & Cloud industry is marked by broad trends of expansion, efficiency, and consolidation. Rising above

comparisons like China, Indonesia, and India, Malaysia holds the advantage in attracting potential clients and investors thanks to a climate of political stability, location that is free from natural disasters, and competitive real estate market. With a year-over-year growth of over 20% in the last five years in Malaysia, the field of digital data management has never been more ripe for the picking.

The main strategy for the proliferation of data centre and cloud is to cement Malaysia's position as the epicentre for technology-driven delivery of digital content and services in the region, with centres spanning 5 million sq ft by 2020. MDEC works to position Malaysia as a regional hub for data centre and cloud services by leveraging on various factors such as cost efficiency, availability of skilled workers, and a strong foundation of data governance laws.

Local data cloud players are strengthened through MDEC's initiatives by priming their high-value services to be regionally competitive. This is done by facilitating the growth of data centre parks in strategic locations through world-class physical and soft infrastructure.

International businesses also stand to gain from MDEC's FDI policy as it offers an attractive portfolio of incentives for Cloud/Internet Giants to invest and set up facilities in Malaysia.

## E-commerce

We live in a time where half the population are digital buyers, which is why e-commerce is an important stepping block to 'future proof' existing businesses while opening up market access. However, the eCommerce ecosystem development in Malaysia is still at an early stage.

According to A.T. Kearney findings under the [National E-Commerce Strategic Roadmap](#), Malaysia is at a turning point of e-commerce growth which must be sped up through government involvement. Issues that need to be resolved are lack of offerings, poor fulfilment experience, low adoption and awareness and lack of supporting ecosystem.

For Malaysia to move beyond the early stage, it needs a strong support and focused government intervention to drive it forward to the growth stage. Through efforts such as #MYCYBERSALE which started in 2014, we have achieved RM67 million Gross Merchandise Value (GMV) in 2014 and RM117 million in 2015. This was made possible by close cooperation with our eCommerce ecosystem players, thereby transforming Malaysia's e-commerce landscape.

In addition to programmes like #MYCYBERSALE, #MYGlobalExport, and eTRADE, the National e-Commerce Strategic Roadmap was developed to double the eCommerce growth rate from 10.8% to 20.8% by the year 2020. This is done through specific government interventions along these Six Strategic Thrusts:

- Accelerate seller adoption of e-commerce
- Increase adoption of e-Procurement by businesses
- Lift non-tariff barriers
- Realign existing economic incentives
- Make strategic investments in selected e-commerce player(s)
- Promote national brands to boost cross-border e-commerce

### Internet of Things (IOT)

In the world of rapid digital interaction, IoT gives insights on how consumers integrate technology in their daily lives, a valuable information that can be used in various ways. The growing need for internet-related products and services is driving this transition, not only globally but also here in Malaysia.

In 2015, the Ministry of Science, Innovation & Technology Malaysia launched the National IoT Strategic Roadmap, which forecasted opportunities to reach RM9.5 billion in 2020 and RM42.5 billion in 2025. This is all done to create a national ecosystem to make IoT a new source of economic growth with its industrialisation and proliferation of use.

The National IoT Strategic Roadmap outlines 3 national goals:

- Malaysia as the Regional Development Hub for IoT
- Create a conducive IoT industry ecosystem
- Strengthen technopreneur capabilities in Apps & Services layer

The 3 long-term strategies for IoT are:

- Open Innovation Framework
- Open Community Data Framework
- IoT Malaysia

MDEC has been tasked to lead the IoT industry developmental charter called IoT Malaysia. With this mandate, we have focused our efforts on key verticals that will not only increase the digital adoption and growth of IoT in Malaysia, but also digitalize the way they operate, which include Smart Manufacturing, Smart Agriculture and Smart Transportation.

- Industry Development – to raise critical mass and competitiveness of IoT companies to drive demand
- Digital Transformation – to facilitate IoT adoption and proliferation through public-private partnership for business, government and citizen
- Ecosystem Development – to facilitate the development of IoT ecosystem and enabling environment

### Big Data Project Inventory

The United Nations Global Working Group (GWG) on Big Data for Official Statistics has compiled an Inventory of Big Data projects (including exploratory research, feasibility studies, pilot projects and projects currently in production) that have implications for compiling official statistics and/or supporting the measurement of the SDG indicators. The aim is to share broad information about potential Big Data projects in the statistical community and share specific information about partnerships, data sources, and tools. The Inventory includes information such as the objective of the project; the Big Data source used; data access and the use of partnerships; applicability to specific domain(s) of official statistics and/or SDG indicators; methods and technology used; and assessment of quality, among others. The GWG collected this information from the statistical community in two surveys conducted in 2014 and 2015.

The GWG investigates the benefits and challenges of Big Data, including the potential for monitoring and reporting on the sustainable development goals. In this context, the GWG and the greater official statistical community recognize the need to adequately address issues pertaining to methodology, quality, technology, data access, legislation, privacy, management and finance, and provide adequate cost-benefit analyses on the use of Big Data.

This inventory is a joint product of the World Bank and the United Nations Statistics Division (UNSD) put together on behalf of the UN Global Working Group (GWG) on Big Data for Official Statistics.

For more information, access:

<https://unstats.un.org/bigdata/inventory/>