



ISKANDAR MALAYSIA
URBAN OBSERVATORY

BUSINESS PLAN

• Data For Decision •



ISKANDAR
MALAYSIA



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01 FOREWORD

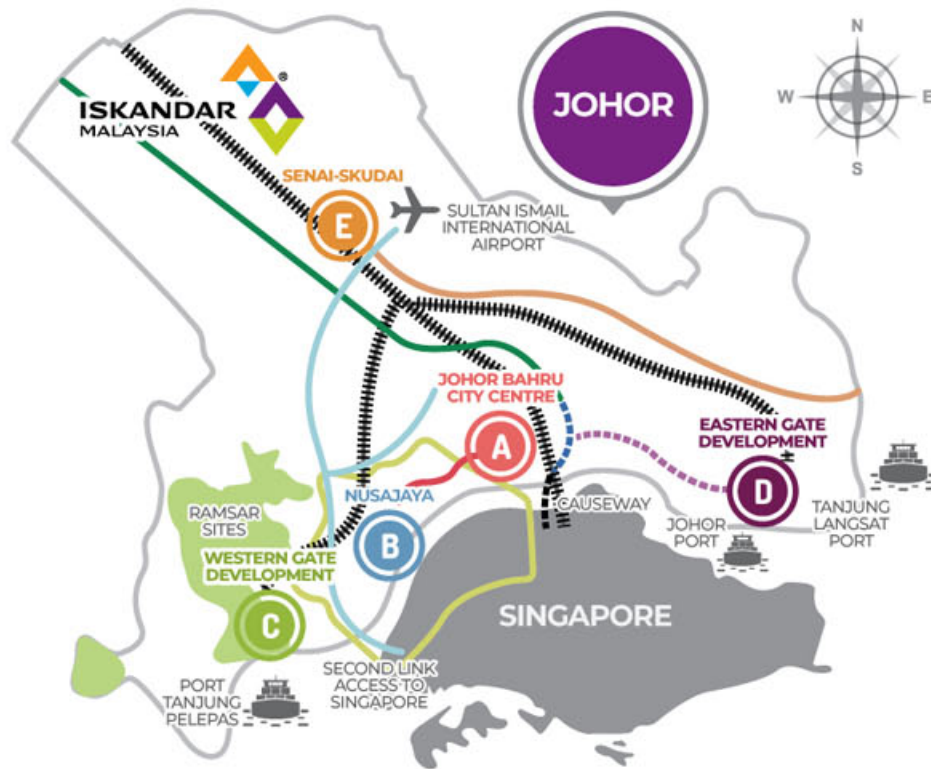
"The development of Iskandar Malaysia embraces the Smart City Iskandar Malaysia framework and its 6 dimensions - Smart Economy, Smart Governance, Smart People, Smart Mobility, Smart Living and Smart Environment. As a smart city, sufficient data and accurate information is vital in helping government to plan, businesses to drive their operations and the community to navigate through their daily activities in the city.

This is where Iskandar Malaysia Urban Observatory takes the lead. This data collection and analytic platform is able to support the needs of the government, businesses and community in Iskandar Malaysia. We recognise and appreciate the support given by our partners as this platform requires partners to share their data and when this happens, various information can be analysed and reports used for stakeholders to make the right decision with the information provided."

DATUK ISMAIL BIN IBRAHIM

Chief Executive of Iskandar Regional Development Authority





Iskandar Malaysia is also developed to be a Smart City which encompasses the 6 dimensions of Smart Economy, Smart Governance, Smart Environment, Smart Mobility, Smart People and Smart Living, and is proud of its achievement in the creation of this pilot program for Smart cities across Malaysia and the region. The development of Iskandar Malaysia is planned, promoted and facilitated by Iskandar Regional Development Authority (IRDA).

Iskandar Malaysia was formed in 2006 under Government Act 664, which also established the Iskandar Regional Development Authority (IRDA), the organization mandated to plan, promote and facilitate development of the region. IRDA is governed by a Board of Directors with Malaysia's Prime Minister as Chairman, and State of Johor Chief Minister as Co-chairman. There are five cities governed by local authorities within Iskandar Malaysia and the IRDA works with the respective authorities to ensure Iskandar Malaysia's vision of becoming a sustainable, inclusive and smart regional corridor in Malaysia, and a 'Metropolis of International Standing' by 2025.

The CDP not only looks to align to the 11th Malaysia Plan, but is also focused on regional growth and enhanced inclusion according to the Sustainable Development Goals (SDGs) framework.

The CDP includes the proposal to develop the Iskandar Malaysia Urban Observatory (IMUO) as the core platform to establish baseline data, to support development planning, and to ensure balanced regional development within Malaysia. Beyond supporting immediate IRDA needs, the CDP sets the more ambitious goal for the IMUO of benchmarking Iskandar Malaysia to regional and global standards. The CDP also stresses the strategic value of developing shared performance targets with state and local governments in Iskandar to enhance IRDA's growing role in streamlining and coordinating planning at different levels of subnational government.

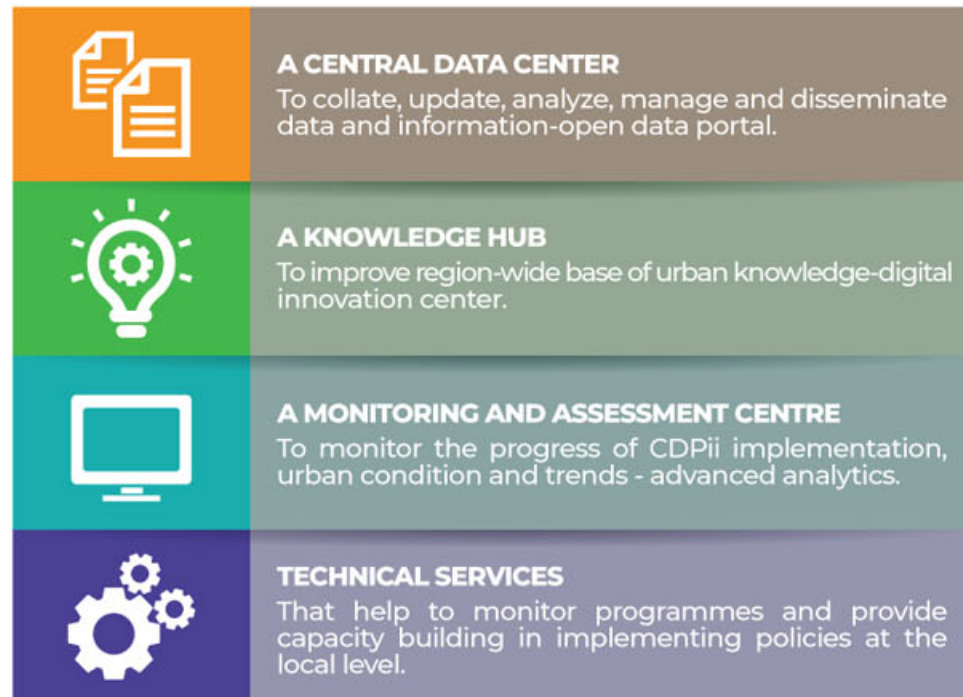
Iskandar Malaysia, an economic region located within Malaysia's state of Johor, has been rapidly growing since its inception in 2006 and is primed to become the preferred international metropolis to invest, work, live and play. Iskandar Malaysia's development is guided by the Comprehensive Development Plan (CDP) and the Circle of Sustainability, ensuring that the region grows holistically into a prosperous economy with a high-quality living ecosystem and a resilient environment.

Iskandar Malaysia's generous land area, strategic location and abundant ready infrastructure boosted its 9 promoted sectors which are Electrical & Electronics, Petrochemical and Oleo-Chemical, Food & Argo-Processing, Logistics, Tourism, Creative, Healthcare and Financial.

03 WHAT IS IMUO?

The IMUO project is a four-year collaboration between the Iskandar Regional Development Authority (IRDA), the United Nations Development Programme (UNDP) and the Malaysian Administrative Modernization and Management Planning Unit (MAMPU) aimed at developing strategic and targeted outputs to support a larger, ongoing initiative established at the national level. The IMUO will entail development of a centralized data center and an advanced regional analytics platform to collate, update, analyze, manage and disseminate data and information in Iskandar Malaysia. It will also act as a knowledge hub to improve the region-wide base of urban knowledge on Iskandar Malaysia.

Guided by IM's Comprehensive Development Plan and the Sustainable Development Goals (SDG) framework, the IMUO project will be an essential tool in transforming Iskandar into a sustainable smart region through evidence-based spatial planning and policy making. The outputs from this project will serve as building blocks to empower IRDA to better plan and implement subnational programs that are tailored to the needs of the region.



Iskandar Malaysia Urban Observatory (IMUO) is a data center to harvest, update, analyze, manage and disseminate data and information on Iskandar Malaysia. The IMUO acts as a knowledge center to enhance the knowledge of cities of the whole Iskandar Malaysia. A monitoring and assessment center were established to monitor the progress of Iskandar Malaysia in implementing the second Comprehensive Development Plan (CDPII) as well as the conditions and trends of its cities. The IMUO also provides technical services that helps stakeholders to monitor programs and targets and provides the capacity building in implementing policies at local level.

The IMUO objectives as follows :

- 01** To be developed as an effective and sustainable Urban Observatory development model.
- 02** To enhance collaboration and information sharing among agencies through 'shared performance target'.
- 03** To transform government agencies to make 'informed decision' using big data analytics on 'authoritative data'.
- 04** To utilise Sustainable Development Goals (SDGs) and Iskandar Malaysia Region monitoring indicators which have been identified as effective and principled.

4 priority areas of strategic value and function of Iskandar Malaysia Urban Observatory (IMUO) are :

- 01** Regional planning and development.
- 02** Shared performance targets with state and local governments that constitute part of the IMUO.
- 03** Achieve international benchmarking standard.
- 04** Drive the digital economy.

04 IMUO VISION AND MISSION

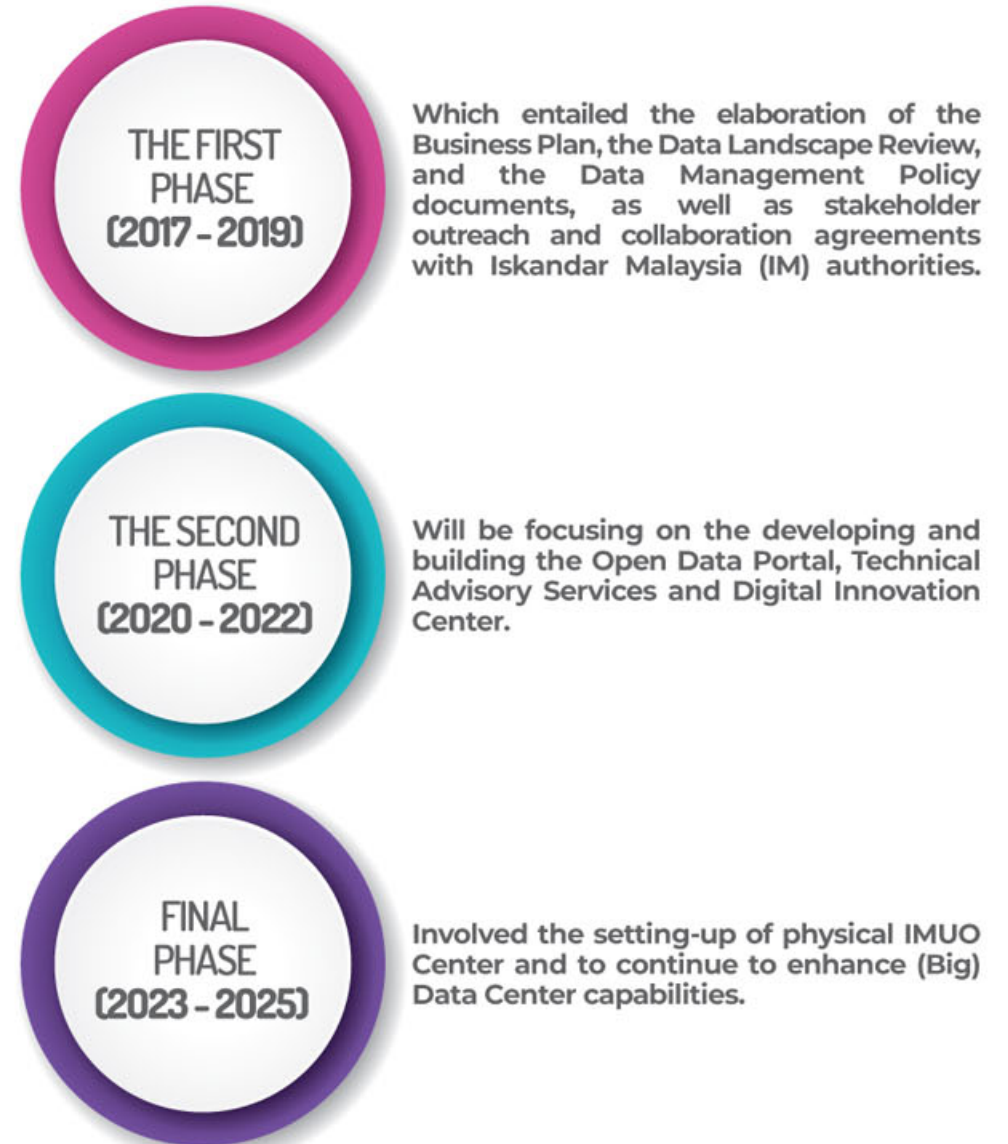
IMUO vision and mission is set in accordance to the vision and mission for Iskandar Malaysia.



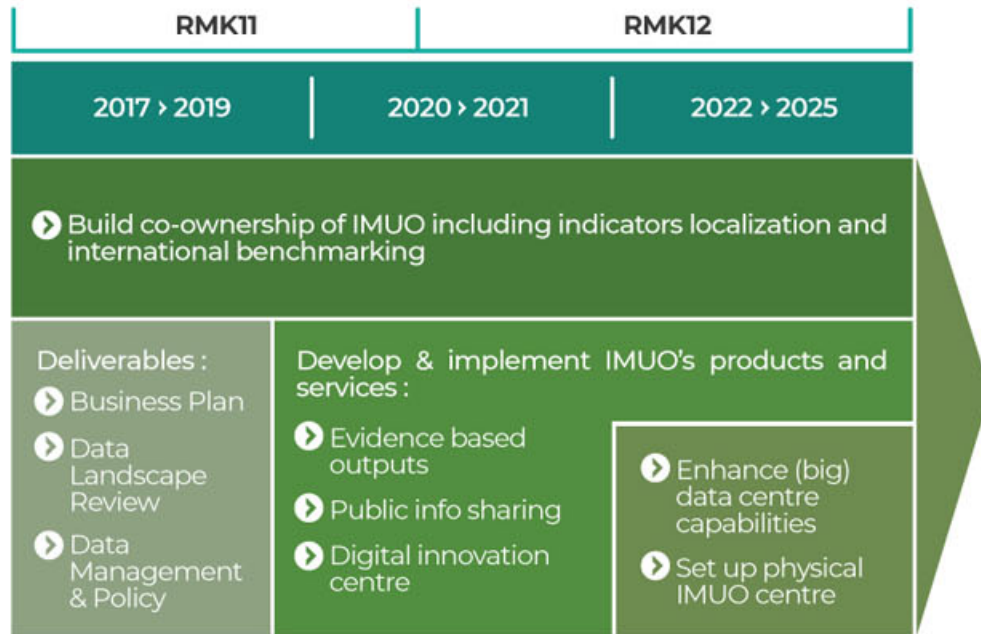
Using the "Data for Decision" theme, the IMUO enables Iskandar Malaysia to monitor and assess the CDPii strategies and programme. The IMUO will enable various outputs and 'deliverables' that will contribute to the Iskandar Malaysia vision towards becoming an international status metropolis and ready for the post-sustainability phase through information sharing between the federal, state, local governments, private sector and community towards an "informed society".

05 IMUO DEVELOPMENT TIMELINE

The IMUO will be implemented in phases which are inter-related and involve various stakeholders in the process, from now until 2025.



Broad timeline of IMUO Implementation :



06 BENEFITS OF IMUO



GOVERNMENT

- 1 Evidence-based decision making platform
- 1 Transparency, accountability in policy making
- 1 Efficient resource allocation, less reliance on external consultants
- 1 Upskilling government staff on analytics
- 1 Monitoring policies implementation and impact



BUSINESS | ACADEMIA

- 1 Enhance investment and business strategies, decisions, business opportunities, innovation and research
- 1 Create and attract data science professional for Iskandar Malaysia



COMMUNITY | CSO

- 1 Better informed personal choices & decisions e.g. in relation to recreation, housing, education, collaboration on initiatives and projects
- 1 Public sensing and participation

07 IMUO BUSINESS PLAN

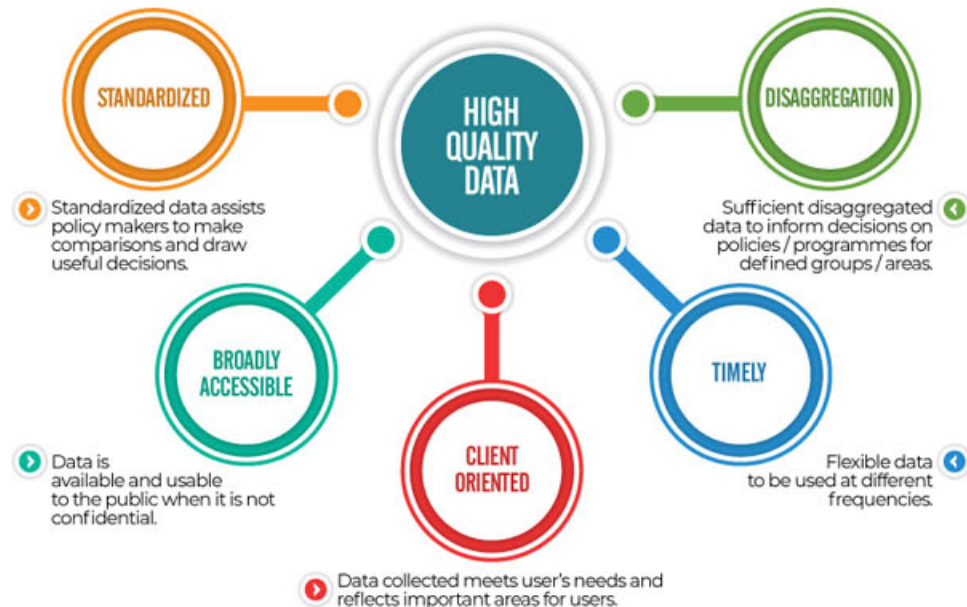
IMUO Business Plan provides information and recommendations such as plans on stakeholder engagement, communication strategies, financial set-up, and capacity development needs. While IMUO is intended as a not-for-profit organisation, this Business Plan identifies self-sustaining strategies (e.g. IMUO's business model) based on projections in the future, including identifies and mitigating significant risks for IMUO.

This Roadmap should be read in two main parts :

- 01 IMUO developed as a division and owned by IRDA (2017-2025, CDPii phase).
- 02 IMUO as an independent entity through SPV (2025 and beyond).

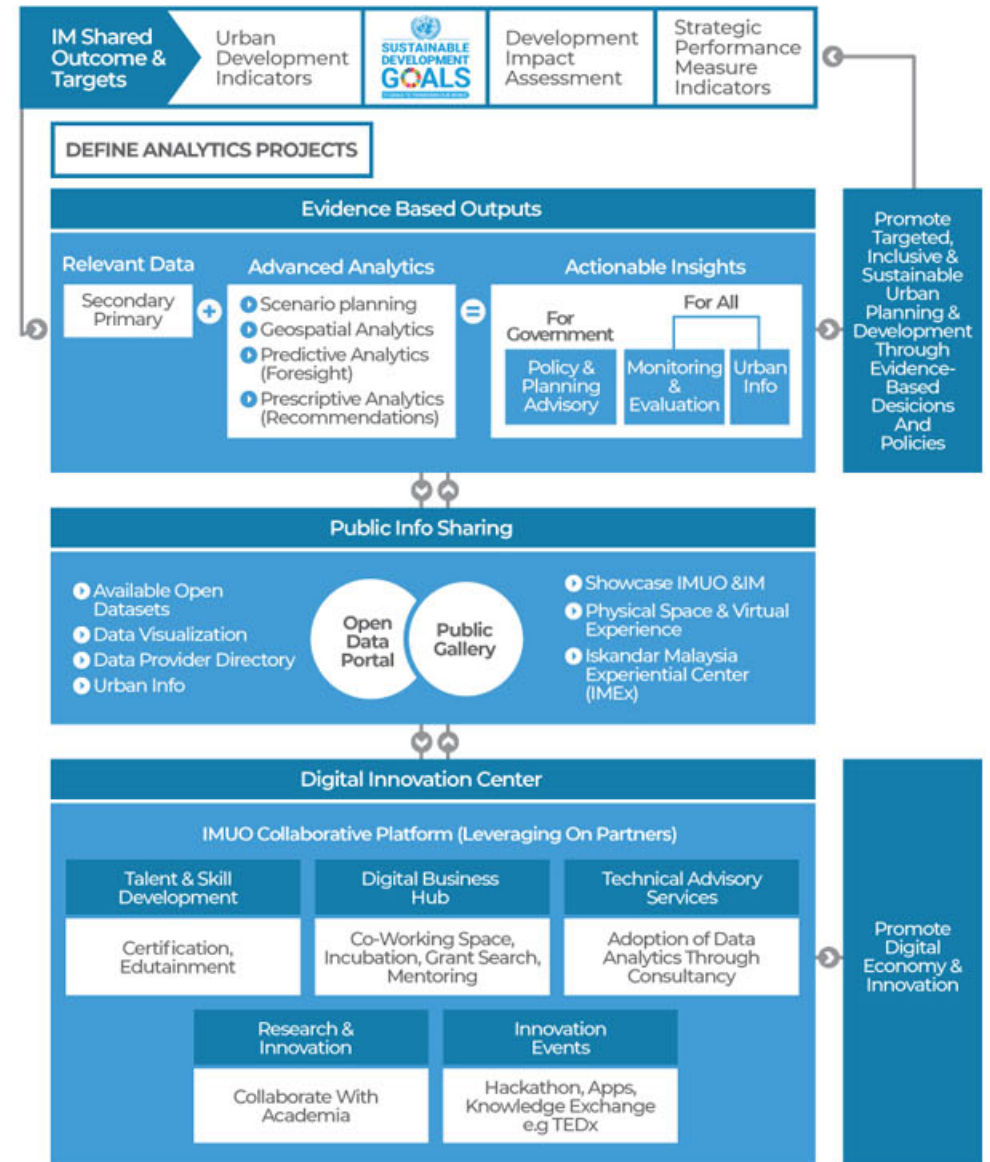
CRITICAL SUCCESS FACTORS

The key to IMUO success is to be able to offer products and services that are highly beneficial and appreciated by the stakeholders, so they find real value in it and are able to outsource, at least partially, their data analytics needs to IMUO as well as share their data. Good quality data is the basis for quality products and services. For IMUO it is essential to have access to available and timely wide variety of high-quality data, which follows standards.



08 IMUO ECOSYSTEM

A high-end view of the IMUO platform and ecosystem is provided in the figure below :



In the proposed IMUO ecosystem, the process starts from identification of shared outcomes and indicators. This determines the data needed, which can be from both secondary and primary sources. With the help of advanced analytics, the data will be turned into actionable insights, which can be used for policy planning, monitoring of indicators and evaluation or reporting, as well as presenting urban information such as focused maps, alerts, and insights featuring a specific sector or urban theme with the help of analytics or geospatial data.

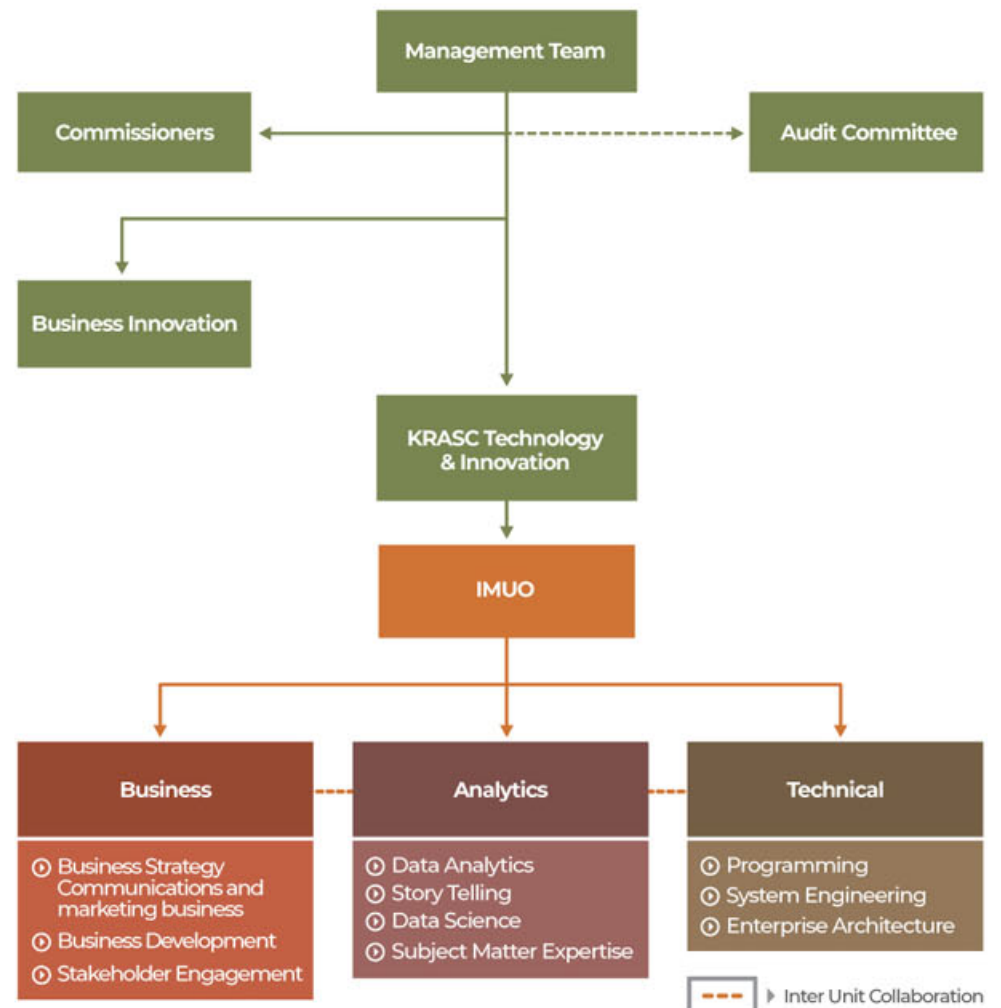
The three main categories of products and services to be provided by the IMUO include:

- 01** Evidence-based outputs, having at its core predictive analytics and scenario planning for the future, which will be a powerful tool for policy and urban planners.
- 02** Public Info Sharing via an Open Data Portal, as well as a Public Gallery, will showcase the transformative journey of Iskandar Malaysia and its innovations.
- 03** The Open Data Portal will provide 10 major categories of data: economy, environment, transportation, government, society & demographics, education, housing, building, land use, tourism & recreation, public safety, healthcare & social services.
- 04** A Digital Innovation Centre, which will focus on enabling the digital economy, spurring research, innovation, and talent development.
- 05** Services to be provided by the Innovation Center will include talent & skill development, digital business hub, technical advisory services, innovation events, and research & development.

The overall outcome of the IMUO will be dramatically improved decision making at government, private sector, and citizen level.

09 MANAGEMENT STRUCTURE

IMUO management structure is proposed based on the assumption that it will be developed, owned, and operated under IRDA until 2025 before it is placed as an entity under an SPV. In ensuring that customer need is satisfied with analysis generated through usage of relevant data and a smooth technical function, IMUO management structure will comprise three units namely Business, Analytics and Technical.



IMUO's manpower requirements will depend on its growth and business needs, staff allocation will depend on its budget. However, when ever there are gaps, existing resources can be re-trained, or specific expertise to be sought through hiring. Both technical and non-technical skill sets are essential for IMUO whose success will hinge on the quality and expertise of its staff. Table below proposed the number of manpower by category needed to run IMUO :

	Position	Role	Number
Technical Expertise Needed	Systems Engineer	Install and maintain the infrastructure, hardware, middleware, software and systems integration.	2
	Administrator	Administrate the datasets and database systems and assist in day-to-day data preparation.	2
	Enterprise Architect	Translate IMUO's vision and mission, strategy, people and processes into a data management strategy and architecture that efficiently and sustainably meets the needs of its current and future requirements.	1
Analytics Expertise Needed	Analyst	Analyse and visualise data and verify its quality based on the intended purpose. Build data according to themes (data marts) with knowledge of data management tools.	2
	Data Engineer	Writing programmes or software for data mining and database systems to prepare data for analysis. Knowledge in data management tools is an added advantage.	2
	Data Scientist	Designing, developing or enhancing algorithms and formulae for data simulation and forecasting. Knowledge in data science platform and programming are an added advantage.	2
	Story-Teller	Interpreting data and explaining it in the form of a story to convey the meaning with more clarity and purpose.	1
	Researcher / SME	Social sciences or subject matter experts (can leverage on partners, e.g. UTM), according to project needs.	The number depends on project or topic involved.
	Business Analyst / Account Manager	Handles key customer accounts and translates as well as conveys what customers want to the technical team.	2
Business Expertise Needed	Business Development	Identifies new business opportunities and customers, develops products and services.	1
	Communication And Marketing	Crafts external communication messages and materials, ensure internal communication is regular and efficient.	2

10 IMUO GOVERNANCE

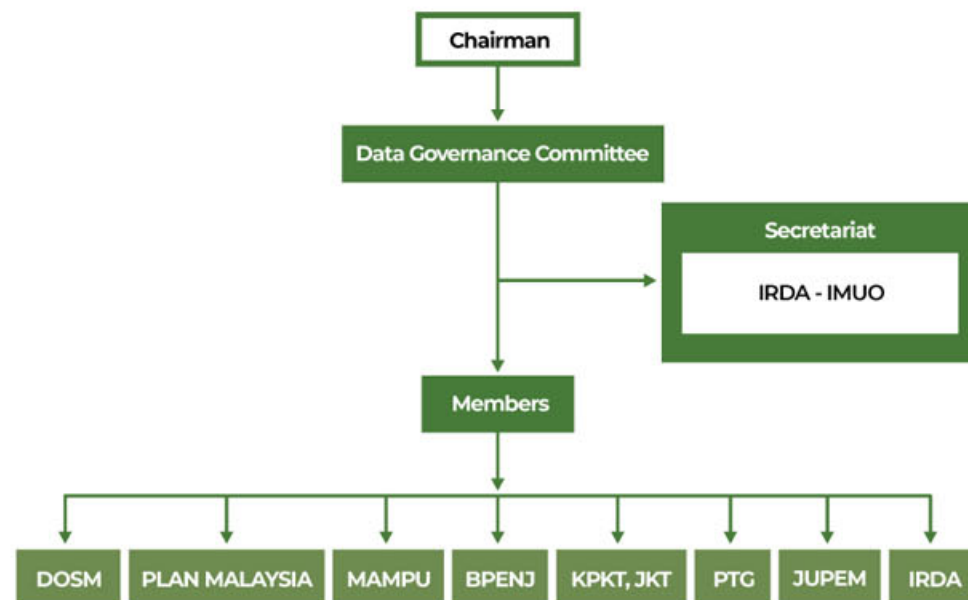
Under IRDA ownership, IMUO will adopt IRDA's established governance system and committees such as the Approval & Implementation Committee (AIC), Audit Committee and Data Governance Committee (DGC).

Data governance means defining and managing different types and categories of data. It enables organizations to have reliable and consistent data sets. Reliable data, in turn, enables organizations to assess performance and make management decisions.

One of most critical area of data governance is the exercise of authority and control - planning, monitoring, and enforcement over the management of data assets. In

other word, data governance is a responsibility, guided by principles and practices, to ensure the appropriate use of data. These uses include (but are not limited to) data collection, viewing, storage, exchange, aggregation, and analysis.

To ensure data governance is in place, it is proposed the establishment of a Data Governance Committee. The Committee's primary duty is to govern and advise the Data Management Committee (DMC) on data management policies, processes, and technology throughout data lifecycle. The DGC will also play the role in coordinating, negotiations and formulating data sharing guidelines, agreements, and policies with all stakeholders.



11 DEVELOPMENT OF IMUO PRODUCT AND SERVICES

IMUO aims to contribute to the development planning of Iskandar Malaysia through its future analytics services and innovative solutions, from which all will enjoy the benefits.

Cognisant of the risk of duplicating existing processes at government agencies, IMUO shall create products and services that complement their needs.

IMUO's product / services guiding principles :

- 01 IMUO shall develop products and services that complement or add value to, rather than duplicate, existing agency practices or processes.
- 02 IMUO's products or services should be easy to localise, replicate or scale up in other regions or cities.
- 03 IMUO shall develop offerings that take into consideration the objectives of the SDGs, CDPII and 11MP as well as monitor their indicators, and should be easily expanded when the need arises.
- 04 IMUO's products and services shall take into consideration user experience and behaviour, including the impact from a gender perspective.
- 05 IMUO shall collect gender-specific user data which lend themselves to impact assessments that may bring about more focused policy, products and services planning.

IMUO : Data Analytics Hub

to realize **shared vision** of Iskandar



12 TARGET USERS OF IMUO PRODUCTS AND SERVICES

In developing its products and services, IMUO will consider its target users as well as the factors of demand.

To foster an environment of collaborative problem-solving, IMUO will make its products and services available to specific target groups, initially leveraging on IRDA's existing stakeholders to identify potential users and later developing its user database.

The impact and performance of the proposed products and services will be monitored regularly to ensure continuous improvement by assessing several aspects, including :

- 01 User experience and satisfaction.
- 02 Purpose of use.
- 03 Quality of data (e.g. for crowdsourcing applications).



13 STRATEGIC PARTNERS

A number of strategic partners have been involved in IMUO planning since the beginning. These strategic partners are deemed as the co-owners of IMUO as they represent fundamental areas related to data governance, management, urban planning, and funding.

They are also members of the Data Governance Committee, which advises on IMUO's future direction and have an important role in products and services delivery. IMUO may invite other strategic partners on board as and when it deems necessary.



14 PROPOSED IMPLEMENTATION PARTNERS

Guided by the principles of shared benefits and goals, various engagements have been conducted to identify key stakeholders based on their influence, interest, and potential role as co-owners or partners of IMUO. These engagements include interviews with experts and futurists at seminars, forums and workshops on matter related to data, monetisation of products and services, and urban planning.

High Impact	High Influence & Moderate Interest <ul style="list-style-type: none"> Ensure needs and concerns are understood and considered Obtain feedback 	High Influence & Interest <ul style="list-style-type: none"> Engage most thoroughly Contribute to planning, direction & decision making
	Low Influence & Interest <ul style="list-style-type: none"> Provide balanced & objective information Limited monitoring 	High Influence & Interest <ul style="list-style-type: none"> Keep them informed Consult on interest areas

Notes : The interest or influence of a stakeholder may change as the IMUO project progress. Therefore, there is a need to continuously reassess and identify new stakeholders and the level of stakeholder engagement at different stages of the project

High Interest

Engagement Conducted	Description
32 project meetings held	Project Team : IRDA, UNDP, Consultants
IMUO presented to 43 stakeholders between 2017 and 2018.	Government, academia, business / solutions providers, NGOs, GCRO (Gauteng City-Region Observatory), GUO (Global Urban Observatory), FCL, Google.
Study visit to Singapore (FCL & Google) 13 agencies participated.	MBJB (Majlis Bandaraya Johor Bahru), MPKU (Majlis Perbandaran Kulai), MPPG (Majlis Perbandaran Pasir Gudang), MBIP (Majlis Bandaraya Iskandar Puteri), DOSM, MCMC, MIMOS, SUKKT (Pejabat Setiausaha Kerajaan (Johor) Bahagian Kerajaan Tempatan, which oversees the local councils), UTM, PTG, Digital Johor, BPENJ, PLANMalaysia Johor.

CONTRIBUTES DATA; USERS OF DATA

- ◉ Jabatan Perangkaan Malaysia
- ◉ MAMPU
- ◉ BPEN
- ◉ PLANMalaysia
- ◉ Local Councils



PROVIDE ANALYTICS

- ◉ Jabatan Perangkaan Malaysia
- ◉ UTM
- ◉ Frost & Sullivan
- ◉ Future Cities Laboratory
- ◉ MIMOS
- ◉ PLANMalaysia
- ◉ TM One

COLLABORATE ON TRAINING & LEVERAGE ON PARTNERS KNOWLEDGE

- ◉ Jabatan Perangkaan Malaysia
- ◉ ADAX
- ◉ SAS
- ◉ MagicX
- ◉ BPEN
- ◉ UTM
- ◉ UKM
- ◉ MaCGDI
- ◉ CyberSecurity Malaysia



MAKING SENSE OF DATA, GENERATING INSIGHTS

- ◉ Frost & Sullivan
- ◉ Henley Business School
- ◉ Future Cities Laboratory
- ◉ Research Institutes

SOFTWARE / TOOLS FOR DATA MANAGEMENT & ANALYTICS

- ◉ IBM
- ◉ MIMOS
- ◉ Fusionex
- ◉ SAS
- ◉ ESRI



DATA CENTRE, PRIVATE CLOUD SECURITY

- ◉ TM One
- ◉ MIMOS
- ◉ IBM
- ◉ CyberSecurity Malaysia

USE VENUE FOR BRINGING IN EXPERTS, MENTORS

- ◉ MagicX
- ◉ Business Hubs
- ◉ Iskandar Space



SET UP & INTEGRATE PLATFORMS

- ◉ TM One
- ◉ MIMOS
- ◉ Fusionex



15 COMMUNICATION PLAN

For IMUO to be effectively implemented, a comprehensive communication plan is critical in ensuring that awareness of IMUO is developed and increasing by time, sufficient feedbacks are received, IMUO's development progress and activities are well communicated to its internal and external stakeholders through various channel.

A communication plan will be formulated to achieve objectives that will not be limited to the following :

- 01 Promoting awareness of IMUO.
- 02 Receiving input or feedback for the development of new applications.
- 03 Continuously designing effective outreach and marketing strategies.

Currently, IMUO's primary stakeholders' groups are the Government, Business and the Community.

Stakeholder Group		
GOVERNMENT <ul style="list-style-type: none"> ▶ Federal ▶ State ▶ Local 	BUSINESS <ul style="list-style-type: none"> ▶ Companies ▶ Investors ▶ Entrepreneurs ▶ Business People 	COMMUNITY <ul style="list-style-type: none"> ▶ Academia & Research Institutes ▶ Civil society organisations and non-governmental organisations ▶ Citizens

IMUO will leverage various communication channels available to reach out its targeted stakeholders.



16 MARKETING IMUO

Marketing plays a key role in boosting IMUO's efforts to cover its operating expenditure gradually.



17 IMUO IMPLEMENTATION PLAN

In preparing IMUO into being an established SPV, IMUO will be implemented according to core themes by referring to the Gauteng City-Region Observatory (GCRO). IMUO will be built by focussing on the following :



18 IMUO IMPLEMENTATION PHASES

Overall IMUO development timeline is presented below :

	2018	2019	2020	2021	2022	2023	2024	2025
Stakeholder Engagement, Shared Ownership	█	█	█	█	█	█	█	█
Staff Skills Mapping, Plan Pilot Projects	█	█						
Hiring Needed Skills		█	█	█	█	█	█	█
Product And Services Delivery, Identify Necessary Data		█	█	█	█	█	█	█
Identifying Partners, Signing Mous, Obtaining Approvals, Licences	█	█						
Product And Services Development		█	█	█	█	█	█	█
Acquisition Of Technologies, Data And Equipment		█	█	█	█	█	█	█
Implementing Strategies To Build The Right Mindset, Skills, Attitude And Cultural Environment		█	█	█	█	█	█	█
Identifying Funding Mechanisms And Funding Sources		█	█	█	█	█	█	█
Preparation For The Transfer To New Premises					█	█	█	█
Completion Of Hiring Key Staff					█	█	█	█
Coming On Board Of Agencies					█	█	█	█
Identifying Collaboration Partners Abroad						█	█	█
Ownership Structure And Governance Development						█	█	█
Transfer Of Ownership								█

Short-Term Work Plan : Less Than 2 years

Year	Action
2018 - 2019	A Staff capacity mapping and identifying the additional expertise required (i.e. by leveraging on partners, and / or secondment).
	B Stakeholder engagement and building co-ownership; tackling agencies one by one while encouraging staff to proactively communicate by sharing examples from abroad, including organising meetings, lectures and knowledge-sharing activities, to which stakeholders will be invited.
	C Product-delivery planning, pilot plan and development : <ul style="list-style-type: none"> ⌚ Launching the dashboard. ⌚ Pilots with UTM / Henley Business School / research institutes / Future Cities Lab.
	D Identify the necessary data, assess the initial hardware / software and purchase the required assets.
	E Sign MOUs and agreements for collaboration and data sharing.
	F Obtain the necessary permits, licences.
	G Collaborate with partners like Environmental Systems Research Institute (ESRI) for GIS and MIMOS for analytics.
	H Develop action plans such as the Engagement Plan or Communication Plan based on the strategies proposed in the Business Plan.

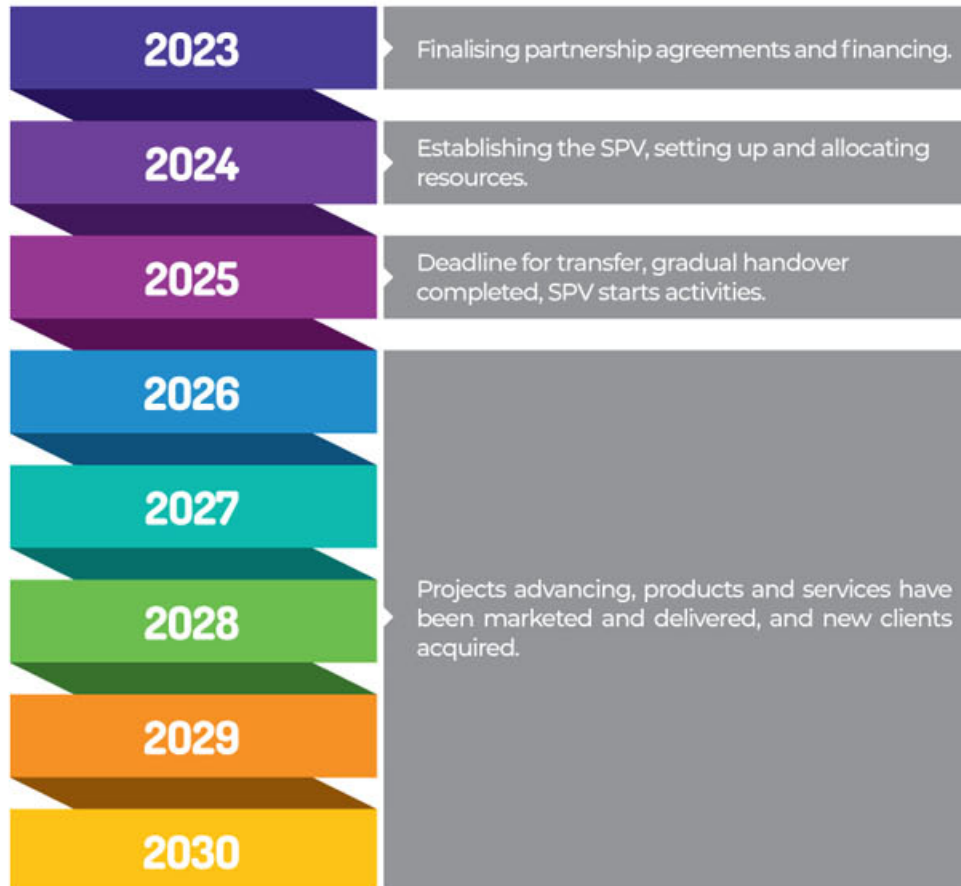
Medium-Term Work Plan : 3 Years to 5 Years

Year	Action
2020 - 2022	A Receiving the bulk of funding and acquiring the required equipment, data and technologies.
	B Implementing strategies to build the right mindset, skills, attitude and cultural environment.
	C Moving to new IMUO office.
	D Identifying other funding mechanisms and sources.
	E Completion of hiring of key staff.
	F Product and services development.

Long-Term Work Plan : 5 Years to 7 Years

Year	Action
2023 - 2025	A Identifying collaboration partners abroad.
	B Generating revenue from products and services.
	C Continuously review ownership and governance structure.
	D Transfer of ownership.

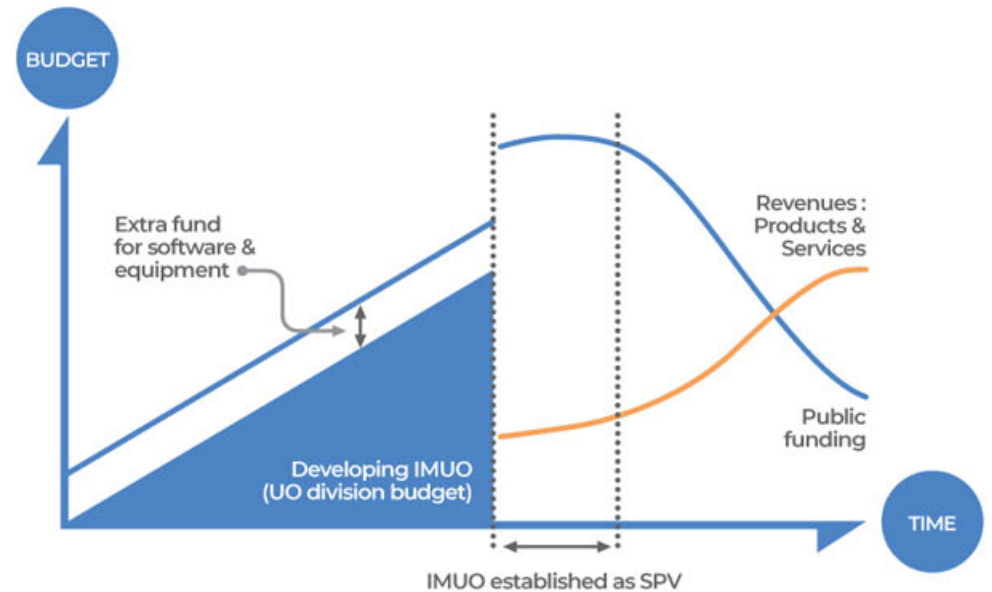
Preparations for IMUO's transfer to an SPV will begin well ahead of the 2025 deadline.



19 FINANCIAL STRATEGY

IMUO will initially be funded based on existing Urban Observatory division budget which comes under IRDA. In realising the fully featured IMUO, additional funding via Development Expenditure funds will be requested and financed by the Ministry of Finance (MoF) to cover the expenditure on :

- 01 Analytics hardware and software
- 02 Data, database, report, purchase of license
- 03 Training



- 01 For the first phase of IMUO development, IMUO division budget is used. Extra funding will be needed for software and equipment
- 02 CAPEX for SPV will need 100% public funding
- 03 Monetisation of products and services will ensure financial stability
- 04 The share of public funding will decrease in tandem with increasing of revenues from products and services, aiming to cover 10%-50% of the OPEX

For IMUO to act as an independent entity, they will require additional development expenditure. Table below shows the different set-up and funding options suitable for IMUO.

Set-Up Option	Share of Public Funding	Share of Private Funding / Revenue From Services
Under Government	100%	Minimal
SPV - JV	Initially 100%, decreases gradually over a set timeframe.	Aims to generate revenue to cover 10%-50% of operating expenditure (to be increased steadily over a set time frame).
Wholly Private Company	Zero (possibly a public grant to contribute to set-up costs)	100%

IMUO funding will comprise of :

- 01 Seed Funding** - funding from the Federal / State governments to cover expenditure on hardware, software, human resources, equipment etc.
- 02 Revenue From Product And Services**
- 03 Grants** - for special projects that could be commissioned by public or private entities.
- 04 In-Kind Services** - in-kind services from academia and research institute would help to minimise cost, this could be done in the form of subject matter experts and collection of primary data.

20 TALENT DEVELOPMENT

Talent development is essential in building the right workforce necessary for precise IMUO execution. Demand in analytics roles has been increasing in the past years, however it is learned that nearly all organisations are lack data-or analytics-related skills. It is also warned that the related skill sets would be challenging to recruit for and would become very costly both in terms of salaries and the opportunity cost to IMUO if they could not fill key data science skill sets.

IMUO must have the ability to rapidly train and retrain employees according to business need, create opportunities for real-time collaboration, and support the workforce with better analytics. To ensure that its employees remain highly competent, IMUO must jointly assess staff training and capacity needs with the personnel involved and leverage on its partners' core skills and knowledge to ensure quality of delivery.

As a preparation to manage organisation-owned data, it is crucial to periodically assessed and monitored core skill, technical and information skills of their staff's. Currently, these skills are being developed and taught by public and private training providers and institutions of higher learning. IMUO need to collaborate with the training providers and institutions locally or abroad to ensure that IMUO has top notch capacities.

List of Malaysia University Currently Offering Data Science Subject Course.



ASEAN Data Analytics eXchange (ADAX) aims to train 20,000 data professionals by 2020 via collaboration with the following training providers :

- 01 SAS Institute Sdn Bhd
- 02 Abeam Consulting (Malaysia) Sdn Bhd
- 03 Dream Catcher Consulting Sdn Bhd
- 04 Datavite Academy Sdn Bhd
- 05 Iverson Associates Sdn Bhd
- 06 Quandatics (M) Sdn Bhd
- 07 The Centre of Applied Data Science (CADS)
- 08 Axsel Management International Sdn Bhd
- 09 HELP University Sdn Bhd
- 10 IMS Asia Sdn Bhd
- 11 K-Pintar Sdn Bhd

21 MONITORING AND EVALUATION

Assessing the impact of IMUO may be a challenging. While some indicators can be used to monitor the acceptance of IMUO's products and services, it would be more difficult to gauge their impact on policy planning as well as the indirect impact on the people living in Iskandar Malaysia / Johor.

IMUO's impact can be measured by :

- 01 Increased use of data (available data sets as well as downloads)
- 02 Data used for commercialisation
- 03 Data models
- 04 The number of new clients
- 05 Internal delivery excellence resulting in positive customer experience and feedback

Meanwhile, monitoring of various indicators will help in providing direction and evidence-based proof of Iskandar's developmental progress. Progress monitoring via indicators can be done with :

- 01 **The Comprehensive Development Plan ii (CDPii)** - by utilising urban development indicators (UDI) and development impact assessments (DIA) to monitor Iskandar Malaysia's progress.



02 Sustainable Development Goals (SDGs) - of which Malaysia has pledged to adopt, IMUO functions are expected to lead to outcomes that closely tie back to the SDG agenda. This will be done by localising the indicators to align with the CDPi's.



03 City Prosperity Index (CPI) - to adopt the UN-Habitat City Prosperity Initiative's CPI that can be used to promote Iskandar Malaysia as a foreign investment destination.

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