MALAYSIA’S NATIONAL BIG DATA ANALYTICS INITIATIVE
MDEC: WHO WE ARE

ATTRACTING GLOBAL INNOVATORS, GROWING LOCAL BUSINESSES

Through the MSC Malaysia initiative, MDEC is committed to identifying and accelerating our local tech champions into global tech icons while attracting investors.

CATALYSING DIGITAL INNOVATION ECOSYSTEMS

We’re future-proofing the economy by building a strong digital innovation ecosystem as technology changes the rules of business.

NUPTURING TALENTS, SUPPORTING INNOVATION

Grooming and transforming the Rakyat (Malaysians) into a tech-savvy workforce to support the growth of a digital economy.
MDEC SPEARHEADING DIGITAL TRANSFORMATION
Developing New Sources of Growth

- BIG DATA ANALYTICS (BDA)
- INTERNET OF THINGS
- E-COMMERCE
- GAMES
- CLOUD & DATA CENTRE
- SECURITY
BIG DATA ANALYTICS (BDA)

1. Malaysia is one of the few countries with a structured BDA roadmap to fully unleash the value of big data.

2. Business owners, government, and citizens all stand to gain from Malaysia's vision as ASEAN’s leading BDA solution hub.

3. Our strategic initiatives are:
   - Proliferating the usage of BDA in private sector
   - Catalysing the adoption and usage of BDA in public sectors
   - Building the BDA industry in Malaysia
MALAYSIA AS SPRINGBOARD TO ASEAN
MALAYSIA AT A GLANCE

**Quick Facts**

- **Capital City**: Kuala Lumpur
- **Population**: 29.2 million
- **Area**: 329,750 sq km
- **Employable Population**: 13 million
- **Climate**: Tropical
- **Foreign Labour**: 1.8 million

**Economy**

- **GDP (2015)**: US$375.633 billion
- **GDP Annual Growth (2014)**: 6.0%
- **Inflation Rate**: 3.2%
- **Unemployment Rate**: 3.0%

**People**

- **Main Communities**: Malay, Chinese, Indian, Indigenous and Eurasian
- **Language Spoken**: English, Malay, Mandarin, Cantonese, Tamil and Hindi

**Secondary Language**

- **Main Religion**: Islam, Buddhism, Hinduism, Christianity and Sikhism
- **Japanese, Korean, Thai, Tagalog, Vietnamese and Arabic**

**Main Religion**

- **Islam, Buddhism, Hinduism, Christianity and Sikhism**
WHY CHOOSE MALAYSIA?

- Most competitive R&D Incentives in ASIA (1st)
- Preferred Destination for investment by global MNCs in Asia (2nd)
- Emerging markets worth putting your money in (3rd)
- In ASEAN on Tech Companies capacity to innovate (4th)
- Most preferred services location (5th)
- Most business-friendly country (6th)
- IMD World Talent Ranking (7th)
With its robust ICT industry, Malaysia continues to grow from strength as one of the best locations in the world to invest.

By choosing MSC Malaysia as your strategic development centre, companies are guaranteed the following support:

- Political and Economic Stability
- Pro-Business Government
- Liberal Investment Policies
- World Class Infrastructure
- Extensive ICT Domain Knowledge
- Heart of Emerging Markets
- Quality of Life
- Proven Track Record
GARTNER PREDICTS THAT BY 2018, MORE THAN 50% OF ORGANIZATIONS WILL COMPETE USING ADVANCED ANALYTICS & PROPRIETARY ALGORITHMS, CAUSING THE DISRUPTION OF ENTIRE INDUSTRIES

BY 2020, PREDICTIVE AND PRESCRIPTIVE ANALYTICS WILL ATTRACT 40% OF ENTERPRISES’ NET NEW INVESTMENT IN BUSINESS INTELLIGENCE & ANALYTICS

Gartner MQ For Advanced Analytics, Feb 2016
Machines Are Taking a More-Active Role in Enhancing Human Endeavors

Digitalized Things Are Making Assisted Economic Decisions

Renovating the Customer Experience Is a Digital Priority
You may reduce churn and gain mindshare
Reducing your customer defection rate by 5% can increase your profitability by 25 to 125%.
* Leading on the Edge of Chaos, Emmet Murphy and Mark Murphy

You may sell an additional product
Up to 63% of shoppers used multiple channels when making orders over £100
* The OmniChannel Opportunity, Deloitte, 2014

You may create a brand advocate
“Every communication, whether mandated by regulation or otherwise, is an important touchpoint with the customer that can grow the relationship and build upon the brand promise”
* Magic Quadrant for Customer Communications Management Software, Gartner, 2015
MDEC’S STRUCTURED BDA ROADMAP
Set the tone for a data-driven culture by understanding the key characteristics. Yesterday’s gut feeling can now be replaced with data-driven marketing cultures where decisions are made based on fact and insight.

As data increases, so do your staffing needs. Find out which data-related roles fit best in your organization. With the right people filling important data related roles, real value creation can occur and optimising resources.

Static approaches to data can slow innovation and quickly lead to irrelevance. Adopt the right strategies to grow results faster. If you think you could be making better use of data, you’re not alone. Learn how IT leaders are driving engagement with advanced analytics.

Choosing the right tools and partners is crucial to the successful adoption of big data towards the desired business outcome. Plugging in to the right platform and eco-system where hype is separated from reality therefore becomes the key to achieving success.

PROPELLING BUSINESS FORWARD THROUGH BDA
4 Key imperatives & Focus Areas

ARCHITECTING A DATA DRIVEN CULTURE

IDENTIFYING ROLES FOR A DATA DRIVEN ORGANISATION

TURNING INFORMATION INTO ACTION

ACCESSING TOOLS AND PARTNERS
NATIONAL BDA FRAMEWORK

Malaysia as a Leading Regional
BDA solution hub & deliver new value to all sectors

1. Development of Data Scientists
2. Unlocking the value of government’s Open Data
3. Driving industry-driven Innovation for impactful use cases
BDA SOLUTION PROVIDERS ARE GROWING DYNAMICALLY

### Foreign Investments
- **Sitecore**
  - US-based global leader in customer experience management
  - 6 years leader in Gartner Magic quadrant for Web Content Management
  - FDI: RM77.48 mil
  - # of Data Professionals: 77
- **IHS Markit**
  - UK-based world leader in critical information, analytics & solutions
  - # of Data Professionals: 53
  - FDI: RM54.21 mil

### Local MNCs Growing Bigger
- **Fusionex**
  - Intelligent Data Management Platform
  - Customers: Air France, Australia Post & SingTel
  - % of revenue from export: 47%
  - # of countries exported to: 16
- **Dataline**
  - Business Intelligence & visualization tools
  - Customers: DHL, Citibank, SSM, Epson
  - % of revenue from export: 53%
  - # of countries exported to: 6

### Startups Scaling Up
- **MoneyLion**
  - Fintech startup offering personal loans
  - HQ in NY with ops in KL
  - Utilizes analytics and machine learning-based risk technology to assess risk
- **Berkshire Media**
  - Real-time Consumer Sentiment analytics
  - Presence in UK, Turkey, Singapore
  - Customers: Petronas, UEM, EPF, MOE, PLUS

### Malaysia as a BDA Services Hub
- **Experian**
  - Irish-based global leader in harnessing information & using it to empower businesses & consumers
  - FDI: RM78 mil
- **Schlumberger**
  - French-based leading provider of tech for oil & gas industry
  - FDI: RM169 mil

| 22 COMPANIES FROM 6 COUNTRIES | 32 LOCAL COMPANIES | 47 STARTUPS | 30 MNCs |
### SOME EARLY ADOPTERS

#### Private Sector
- Majority of Use Cases in Retail or Customer Analytics and Logistics
  - Analyse & predict credit card customer’ spending habits
  - 20% revenue increment
  - # of Data Scientist: 3
  - CIMB

- Optimise flight routes, identify weakest link
- Enable aircraft to fly new efficient path
- Saving 1% (14 million kg) of flight fuel annually
- # of Data Scientist: 3
  - AirAsia

#### BDA-native Startups
- Data Driven, scaling into multiple countries
  - Recommendation engine based on viewing habits
  - Currently has > 1 mil subscribers
  - # of Data Scientist: 3
  - iflix

- Data Platform for SMEs
- US$2.5m economic impact yearly
- > 3000 service professionals on-board
- # of Data Scientist: 3
  - ServisHero

#### Public Sector
- Pockets of POCs conducted; full roll out yet to take off
  - Water gate automation control using data analytics in Sekinchan, Selangor
  - POC saw an increase of paddy yield by 20%
  - moa incorporated

- Flood prediction released 7 days earlier instead of 1 day
- Flood warnings released 2 days earlier instead of 6 hours
- Rolled out in flood prone areas in Kelantan, Terengganu & Pahang
  - JPS Malaysia

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However, adoption needs to be ramped up
PEOPLE & TALENT DEVELOPMENT

Track 1: Formal University Initiatives
Formulate industry relevant curriculum for university adoption

Track 2: Professional Development
Facilitate training providers to offer more BDA professionals training in the market
TWO TRACKS TO CREATE DATA SCIENTISTS

Track 1: Formal University Initiatives
Formulate industry relevant curriculum for university adoption

- Postgraduate program in Data Science
- Undergraduate degree with Data Science specialisation
- Introducing a Data Science module to non-ICT degree courses
- Facilitate Industry-Academia collaboration, e.g. Cloudera, Fusionex, SAS institute, SAP, RapidMiner

Targeting
16,000 Data Professionals
Including
2,000 Data Scientists
to be trained by the year 2020
TWO TRACKS TO CREATE DATA SCIENTISTS

**Track 2: Professional Development**
Facilitate training providers to offer more BDA professionals training in the market

- Business Analytics & Big Data for C-level
- First time held outside Boston

- Highest passing rate xxxxx%

**Blended MOOC Data Science Certification Program**

**Enterprise Data Scientist Bootcamp**

**Professional development programs by SAS Institute, Dell EMC, Cloudera, Hortonworks, etc**

**Certified Reference**
- EDS prog
- 200 pax by end2016

Prof Karim photos

Group photo

???
CREATING THE AWARENESS AMONG C-SUITES AND MIDDLE-MANAGEMENT

Obtaining buy-ins and creating the momentum within organizations

C-LEVEL AWARENESS AND EDUCATION

Business Analytics & Big Data for C-level (53 C-levels trained)

MIDDLE-MANAGEMENT & ACADEMICIANS

DATA MATTERS SERIES

Various topics on BDA with 3 series in 2016 with over 600 participants
UNLOCKING THE VALUE OF OPEN DATA

ODI strategic partnership with MAMPU & MDEC

32 Open Data Champions from 13 ministries and agencies

Open Data Guidelines for Public Sector has been developed by MAMPU and endorsed by Tan Sri KSN

Malaysia’s ranking:

Source: Open Data Barometer by WWW Foundation
GOVERNMENT’S OPEN DATA INITIATIVE

- Launch of data.gov.my beta version @ March 2016
- Increase number of datasets available on data.gov.my (Current: 1,267 datasets – August 2016)
BIG APP CHALLENGE 3.0
1000 total participants from over 200 teams so far!

MDEC Endorsed Hackathons

- Angelhack KL 2016
- JomHack: Smart Cities with LoRa
- KDU-Quandratics
- Dreamcatcher-Fusionex-UHTM-UTM-USM-UTM
- CIMB-SAS
- NASA International Space Apps Challenge 2016

June – September 2016
MDEC Endorsed Hackathons

26 October 2016
BDA Semi-Finals
5-minute pitches

November 2016
Pre-accelerator
for semi-finalist, mentored by MSC BDA companies & startups

December 2016
Grand-Finals
Total of RM200,00 prizes to be won

Pre-Accelerator
10 teams

10 teams
OPEN INNOVATION
Accelerating industry-driven CoEs for impactful use cases

4 CENTRES OF EXCELLENCE
formed with MDeC to create national high-impact BDA solutions

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<td>Western Digital</td>
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Some of the BDA solutions developed:
- Extreme weather projection & visualisation
- Sustainable budget & optimisation of the nation’s financial health
- Monitoring and detection of potential threats to the nation
- Dengue hotspot prediction
- Smart manufacturing
- Increased bank revenue via customer spending behaviour analysis
- Increased retail revenue
To promote public & private data sharing over a national data platform, which will offer services such as Data Brokerage, Demand-driven Data requests and Data Analytics as a Service.
INTRODUCING ASEAN DATA ANALYTIC EXCHANGE (ADAX)
ADAX SHOWS YOU HOW SUCCESS LOOKS LIKE

Why should you advance your business using advanced analytics?

How to move your big data strategy from vision to reality?

Utilising predictive analytics to enhance Customer Experience
ASEAN DATA ANALYTICS EXCHANGE (ADAX) FOR PROFESSIONALS

Regional hub where MDEC brings together:

1. Innovative talent development models
2. Latest BDA technologies to be showcased
3. Use cases for ASEAN region to be piloted
4. BDA startups & accelerators in a co-working location

Collaborative Public-Private Partnership platform
SAMPLE OF PROPOSED ADAX ACTIVITIES

**INNOVATION LAB**
1. Demo / Showcase
2. Sandboxing
3. Product Launch & Grow Programme
4. Experts Meet & Greet
5. Corporate & Community Project

**TALENT DEVELOPMENT**
1. Technical Classes / Massive Open Online Courses
2. Hackathon
3. Job Matching
4. Shared Training & Tech Labs

**STARTUP**
1. Accelerator Prog.
2. Industries Collaboration
3. Access to Funding & Go-To-Market
A DAY @ ADAx

Demo / Showcase
- Showcase your products/services/use cases

Training / Shared Lab
- Utilize the technology infrastructure available for R&D
- Hands-on training by experts
- Identify potential employees

Networking
- Meet up with other eco system players from across ASEAN

Ideation / Validation / Consultation
- Converting potential customers into customers

Meeting
- Brainstorm with customers, startups and others to initiate a new project/lock in a deal/carry out M&A, etc.

Innovation Lab
Talent Development
RECENT BDA RELATED EVENTS
BIG DATA WEEK ASIA 2016, 19-25 SEP 2016
RISE OF THE DATA-DRIVEN ENTERPRISE

2173 participants, 30 speakers, 30 exhibitors, 2 tracks, 9+ satellite events
ANCHOR EVENT FOR BIG DATA WEEK ASIA 2016

Speakers List

Mark Gallagher
Managing Director
CMS Motor Trading
(F1 Grand Prix)

Prof. Sang Kyun Cha
Director of Big Data Institute
Member of Board of Trustees

Andrew Stott
Member
UK Public Sector Transparency Board

Richard Benjamins
Group Director
BI and Big Data
Telefonica

Ivan Teh
Managing Director
Fusionex