Malaysia at the forefront of Data Economy

9 OCTOBER 2018
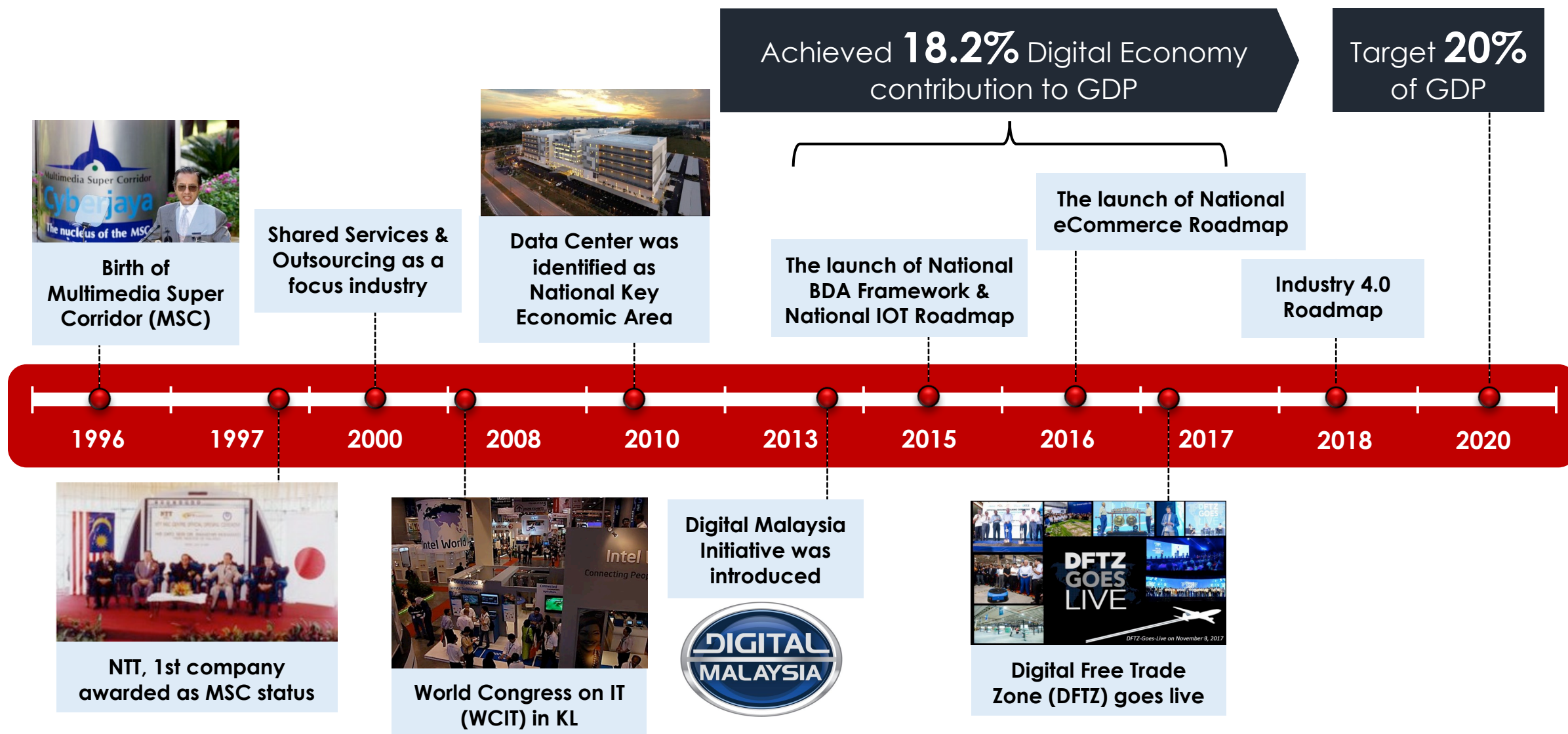
MDEC®

MDEC® Connecting businesses and people to their digital future.

We help to build a vibrant **digital economy** in Malaysia that attracts companies, talent and investment while enabling Malaysian businesses to play a leading part in the **global digital revolution.**

We are driven by the promise that **technology and innovation** have to transform the future of our nation and the world.

MALAYSIA'S DIGITAL ECONOMY DEVELOPMENT

Achieved **18.2%** Digital Economy contribution to GDP

Target **20%** of GDP

Birth of Multimedia Super Corridor (MSC)

Shared Services & Outsourcing as a focus industry

Data Center was identified as National Key Economic Area

The launch of National BDA Framework & National IOT Roadmap

The launch of National eCommerce Roadmap

Industry 4.0 Roadmap

| 1996 | 1997 | 2000 | 2008 | 2010 | 2013 | 2015 | 2016 | 2017 | 2018 | 2020 |

NTT, 1st company awarded as MSC status

World Congress on IT (WCIT) in KL

Digital Malaysia Initiative was introduced

Digital Free Trade Zone (DFTZ) goes live

CHAMPIONING MALAYSIA'S DIGITAL ECONOMY

MDEC. Connecting businesses and people to their digital future.

| Driving Investment | Building Local Tech Champions | Catalysing Digital Innovation Ecosystems | Propagating Digital Inclusivity |

INNOVATING DATA ECONOMY

Big Data Analytics
Internet of Things
Artificial Intelligence

DATA ECONOMY Creating Value from Data

CONNECTED → **ANALYSED** → **INSIGHTS** → **OPTIMISED** → **MONETISED**

Internet of Things

Big Data

Analytics

DECISION MAKING

BEHAVIOUR TRACKING

SITUATIONAL AWARENESS

PROCESS OPTIMISATION

RESOURCE OPTIMISATION

AUTONOMOUS SYSTEMS

REVENUE

OPTIMISATION

EFFICIENCY

ASEAN DATA ANALYTICS EXCHANGE (ADAX)

A one-stop hub to pull the big data analytics ecosystem together to create solutions and adopt data technology ecosystem

Develop **TALENT**   Promote **TECHNOLOGY**   Proliferate **ADOPTION**

Pioneering latest DS & AI learning experience

Focal point for DS & AI community events

Soft-landing place for global DS & AI company

Testbed facilitator & thought leader for data technology related projects

A go-to place for data technology adoption journey

Talent Development for Future Digital Workforce

65% of Children in Schools Today Will End Up Working in Completely New Job Types That Don't Yet Exist
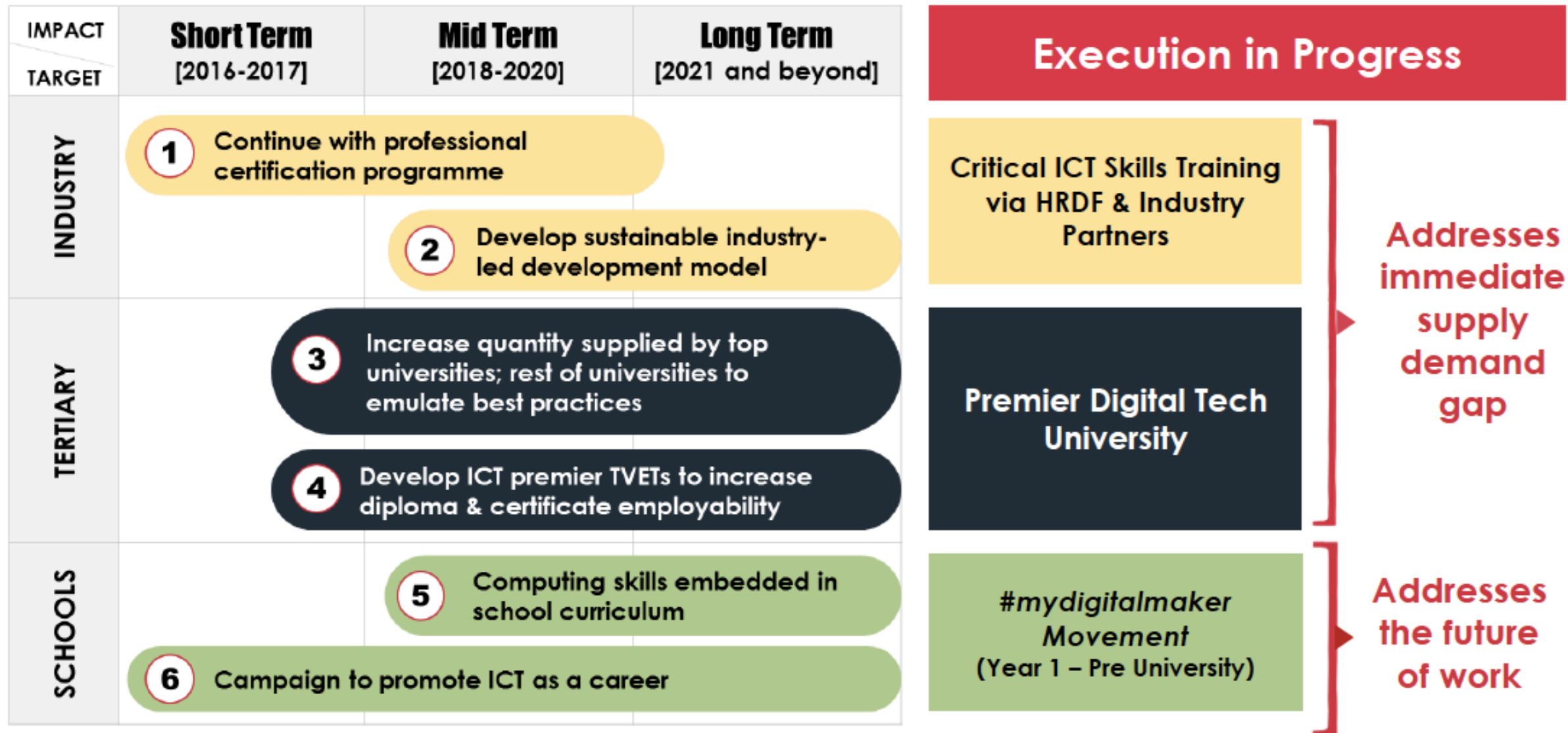
Future of Jobs Report,
World Economic Forum 2016

WORLD ECONOMIC FORUM

DIGITAL TALENT STRATEGIC INTERVENTION ROADMAP ADDRESSES FUTURE OF WORK

IMPACT / TARGET	Short Term [2016-2017]	Mid Term [2018-2020]	Long Term [2021 and beyond]
INDUSTRY	1. Continue with professional certification programme	2. Develop sustainable industry-led development model	
TERTIARY		3. Increase quantity supplied by top universities; rest of universities to emulate best practices	
		4. Develop ICT premier TVETs to increase diploma & certificate employability	
SCHOOLS		5. Computing skills embedded in school curriculum	
	6. Campaign to promote ICT as a career		

Execution in Progress

Critical ICT Skills Training via HRDF & Industry Partners

Premier Digital Tech University

Addresses immediate supply demand gap

#mydigitalmaker Movement (Year 1 – Pre University)

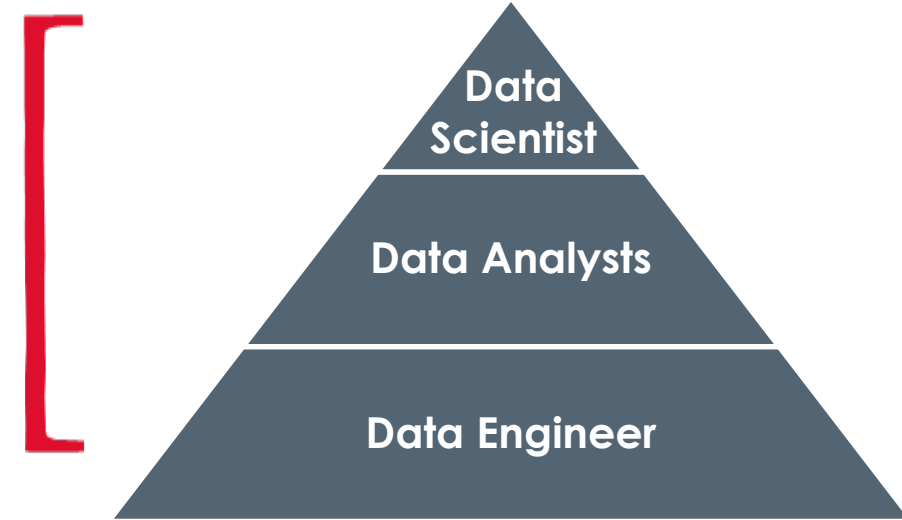**Addresses the future of work**

DATA TECH TALENT DEVELOPMENT
Malaysia has a 2020 Target to Develop 20,000 Data Professionals

We have facilitated the development of nearly

7,000
Data Professionals

Data Scientist

Data Analysts

Data Engineer

Holistic talent development approach at universities & professionals level

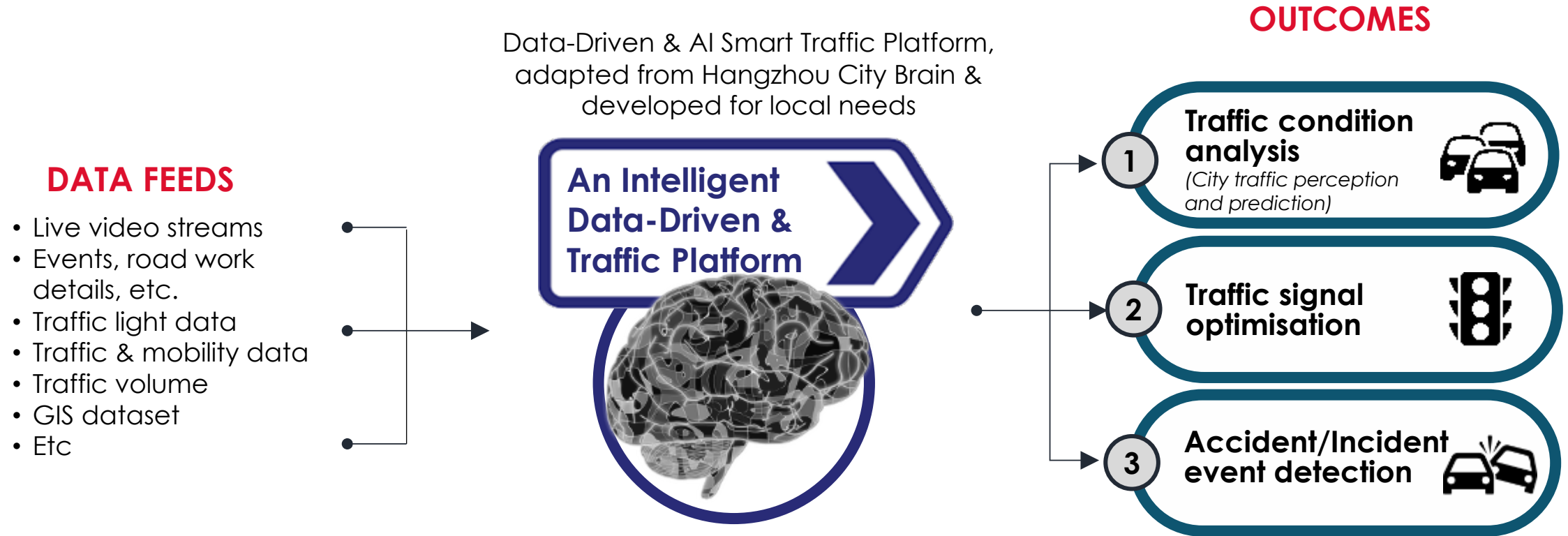| University	Professional		
Undergraduate Postgraduate	Finishing School	Working professionals	C-suite
14 Universities offering programmes in Data Science	Data Star Apprentice Programme	Certified Professional Development Courses	

MDEC®

High Impact Projects
Drive use cases

How Can Big Data & Artificial Intelligence Improve Traffic Management In KL?

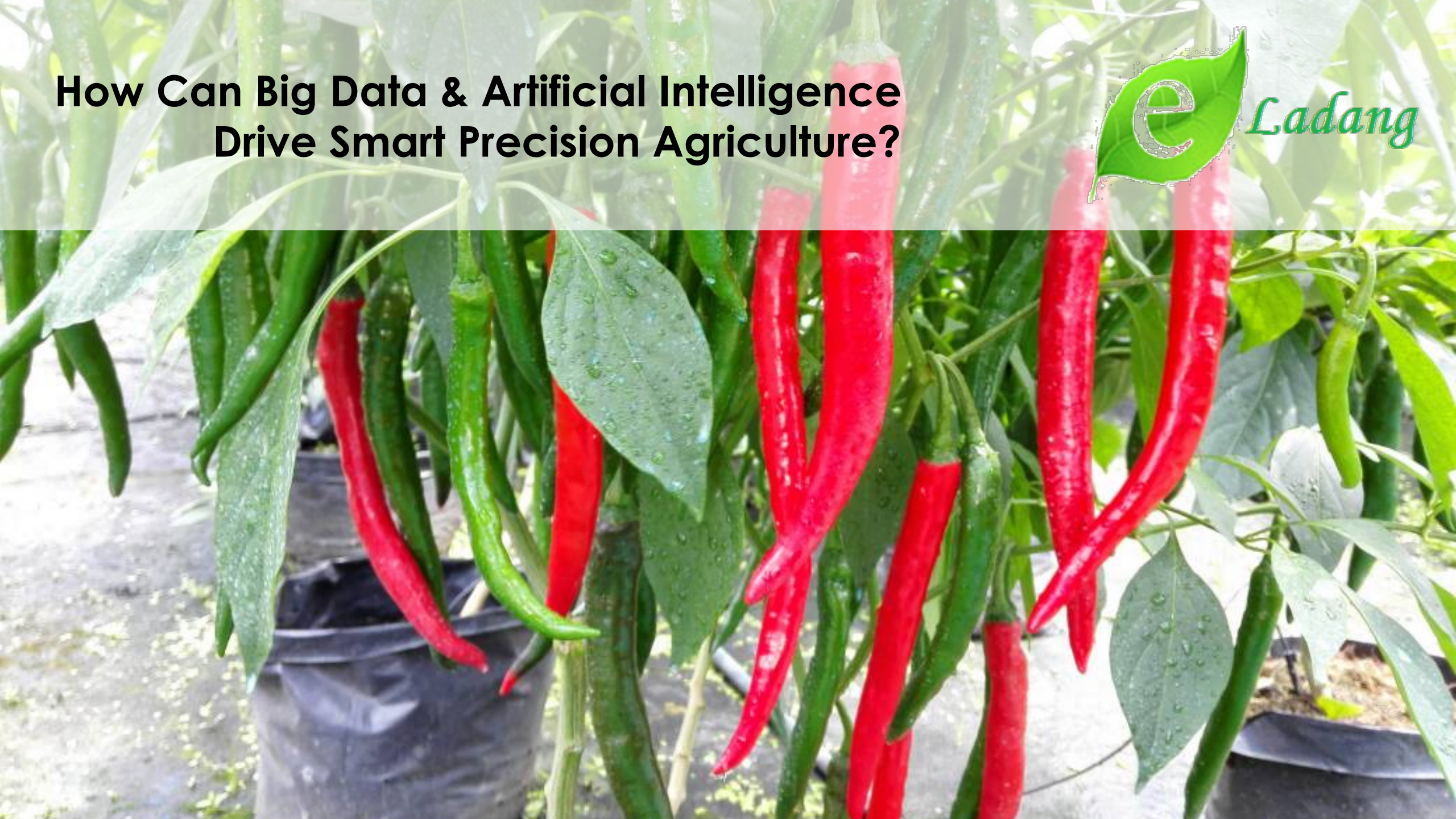MALAYSIA CITY BRAIN

A Data-driven & AI Smart Traffic Solution

Data-Driven & AI Smart Traffic Platform, adapted from Hangzhou City Brain & developed for local needs

OUTCOMES

DATA FEEDS

- Live video streams
- Events, road work details, etc.
- Traffic light data
- Traffic & mobility data
- Traffic volume
- GIS dataset
- Etc

An Intelligent Data-Driven & Traffic Platform

1 **Traffic condition analysis**
(City traffic perception and prediction)

2 **Traffic signal optimisation**

3 **Accident/Incident event detection**

Opportunity in Agricultural
Digital Adoption in Chili Farming

Using IoT technology to measure soil moisture, electrical conductivity, temperature & overall plant health

Sensors – IoT - Analytics

- Utilising sensors to monitor and control the usage of water and fertiliser precisely to **minimise cost**
- Optimising with data collected from sensors producing **higher yield**

Actual Outcome

75% **HIGHER YIELD**
2.0 kg to 3.5 kg
(per plant/season)

30% **COST REDUCTION**
Optimal usage of water & fertiliser

AUTOMATING QUALITY CONTROL OF CHEMICAL TESTING IN GLOVE MANUFACTURING

PAIN POINTS

1. **Manual quality control processes**
2. **Time consuming & labour intensive**
3. **Low efficiency and human errors**

APPROACH

- Installed IoT sensors in the chemical tanks to collect real-time data for chemical testing. Allows corrective actions taken automatically via installed electronic-controlled valve in the tanks.

OUTCOMES:

⬇**100%**
Dependency on Foreign Workers for Chemical Testing

⬇**100%**
Unplanned Downtime

⬇**67%**
Reduction in Lab Testing (QC)

TOP GLOVE
TOP QUALITY, TOP EFFICIENCY

"Top Glove has been continuously automating our manufacturing operations and we are now forging ahead with **factory digitalisation initiatives using cutting edge technologies** with the support from MDEC, who has been instrumental in our digital adoption journey."

Tan Sri Dr. Lim Wee Chai, Executive Chairman, Top Glove

SO, WHAT'S NEXT?

▰ Here are a number of ways MDEC can assist in your journey into the world of Data Economy:

- ▰ Adoption of Data Technology via match making with solution/service providers

- ▰ Meeting your Talent requirements by facilitating with universities and training providers

- ▰ Problem solving via hackathons that MDEC can assist in organising

- ▰ Sharing of your use cases at ADAX

THANK YOU

Somasundaram Nagappan
Data Economy Division
soma@mdec.com.my