



origin

# HUMAN RESOURCE ORGANISATIONAL DEVELOPMENT (HROD) ROUNDTABLE

14 NOV 2019  
DR KOH TAT SUAN



origin

# PRESENTATION ROADMAP

1. Case study of global best practices – Singapore's workforce development journey
2. Case study of global best practices – CET Master Plans and SkillsFuture
3. iR 4.0, Future of Work & Talent Management
4. Promotion of lifelong learning and setting up of learning neighbourhoods



# origin

## Part 1:

Case study of global best practices – Singapore's workforce development journey





# origin

## Scope of Part 1

1. Where we are now
2. How did we get here
  - a) Learning to Survive
  - b) Learning to Stay Ahead
  - c) Learning to Compete
  - d) Learning for Life
  - e) Learning for a New World
3. Learning points





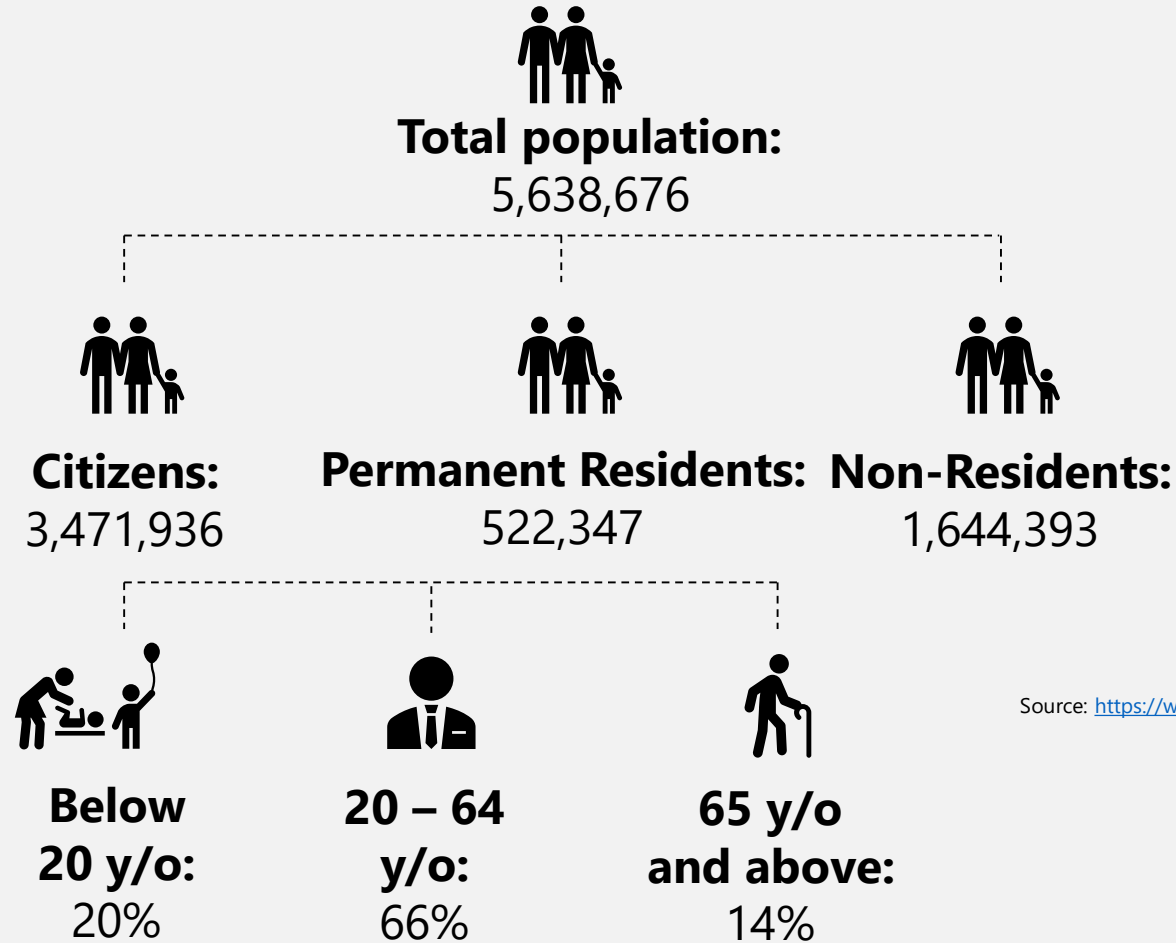
origin

PART 1, Section 1:

**Where we are now**

# origin

# Demographic Profile



Source: <https://www.singstat.gov.sg/> accessed on 7 Aug 2019



**Median age:**  
40.8



# origin



**Overall literacy  
for 15 and  
above:**

97.3%



**Male literacy:**

98.9%



**Female literacy:**

95.9%



**Overall mean years  
of schooling: 11.1**



**Male years of  
schooling: 11.6**



**Female years of  
schooling: 10.6**

# Education Profile



**Overall residents  
≥ 25 y/o with post-  
secondary  
qualifications: 54.9%**



**Male residents:**

59.4%



**Female residents:**

51.1%



**Annual  
number  
of graduates**

**Polytechnics: 25,805**

**Universities: 18,537**



# Workforce Profile

origin



## Total labour force:

3,657,600

2.7% unemployment



## Total resident labour force:

2,269,700

3.9% unemployment



## Total labour force participation:

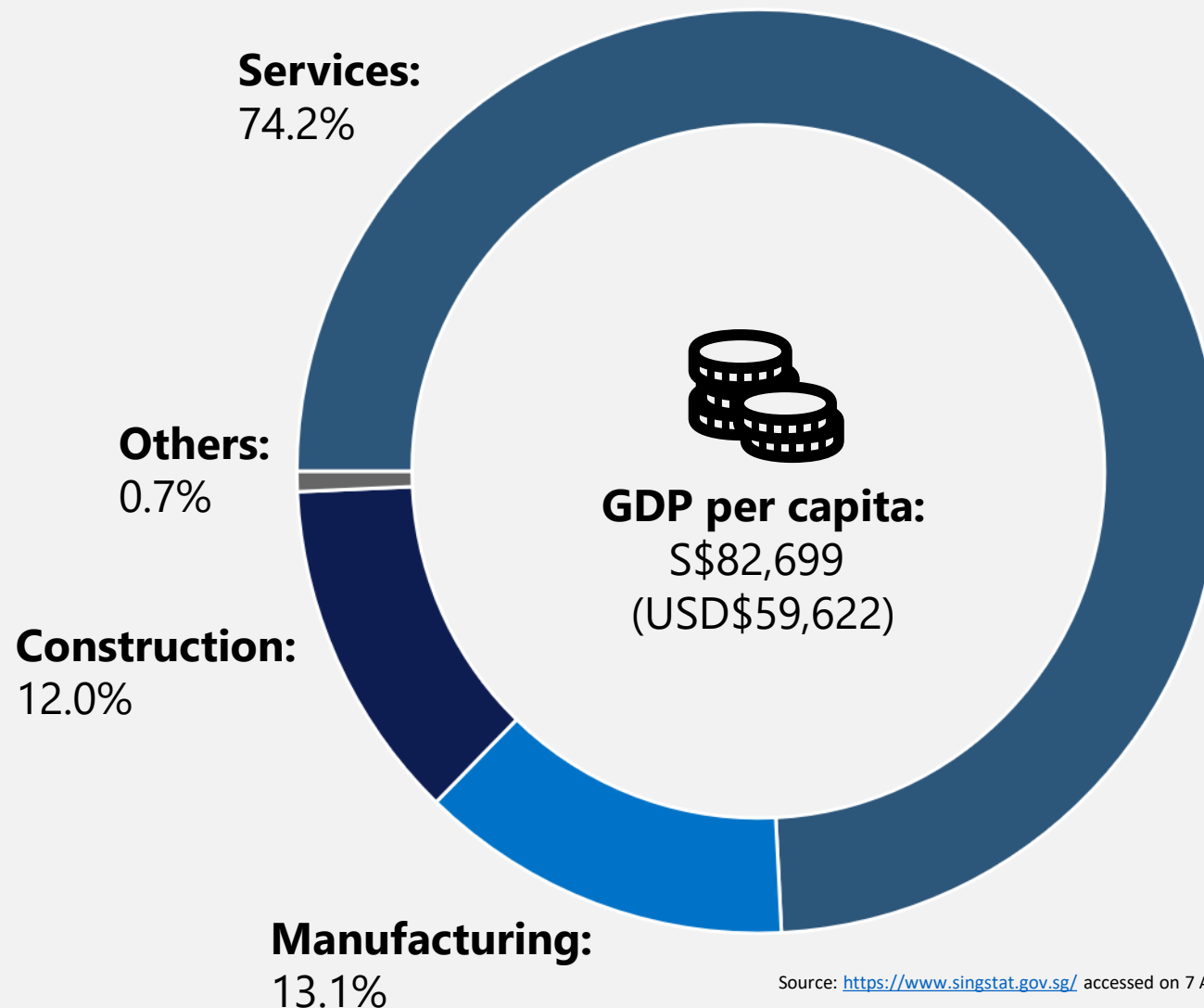


76%



59.8%

## Industry Sector Breakdown



Source: <https://www.singstat.gov.sg/> accessed on 7 Aug 2019



origin

PART 1, Section 2a:

**Learning to Survive**

# "Learning to Survive" – From 60s to early 70s

**1963 – 1965**

Being a state within  
the Malaysia  
Federation

**1959**

Granted the status  
of a self-  
governing state  
by the British

**1965**

A fully independent  
and sovereign  
nation



origin “Learning to Survive” –  
From 60s to early 70s



## Expansion of international trade because

- Expansion of international trade because
  - (1) Entrepot trade was being eroded
  - (2) On-going Konfrontasi with Indonesia affected trade volume
  - (3) Withdrawal of British troops impacted local employment and loss of British military expenditure

# "Learning to Survive" – From 60s to early 70s

2

## ALLEVIATE HIGH UNEMPLOYMENT RATES

- Due to rapid population increase, estimated 46,000 (10% of labour force) unemployed in 1959
- Post-war babies set to enter the labour market, predicted some 84,000 jobs are needed



# origin “Learning to Survive” – From 60s to early 70s

## SINGAPORE’S ECONOMIC GOVERNANCE: 2 KEY POLICY CONCEPTS



### Strategic Pragmatism

Having a vision and mastery strategy for development, & practical intelligence to pragmatically and innovatively make it happen



### Developmental state model

Overwhelming policy focus on stimulating economic growth, often through the actions of developmental agencies



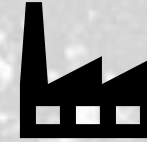
Dr Goh Keng Swee, who initiated the setting up of the Economic Development Board



# “Learning to Survive” – 3 GOVERNMENT POLICY MEASURES

1

## ADOPTING AN INDUSTRIALISATION PROGRAM



Adopting the recommendations of a 1961 United Nations study for an industrialization program by:

- (1) Re-orienting from import substitution to export promotion
- (2) Introduce new incentives to attract foreign investments
- (3) Provide economic incentives to private sector

(4) Government involved by direct participation through public enterprises:

- a. Statutory Boards and
- b. State and semi-state companies

(5) Set up government organs to meet job creation targets and industrial drive.

EDB was such example:

- (1) Attracting electronics companies from US, Europe and Japan to implement low skills/low wage manufacturing and oil refineries companies, Shell and Esso
- (2) One-stop approach to deal with MNCs and provide incentives such as cheap rents, tax breaks and cheap energy supplies

# “Learning to Survive” – 3 GOVERNMENT POLICY MEASURES

2

## ADOPTING A COORDINATED MULTI-STAKEHOLDER APPROACH



Passing the Employment Act of 1968 & amending the Industrial Relations Act of 1960 to ensure:

1. An orderly labor force and
2. Restrain increase in wage costs

Obtaining full cooperation of trade unions with a tripartite arrangement to bring a period of industrial peace.

Foreign investment, particularly from MNCs increased rapidly.

They brought in capital and technical know-how and also an enlarged export market.

As a result, manufacturing sector grew rapidly at an annual rate of 18.7% during 1966 – 73.

The National Industrial Council was established in 1968 comprising the MOE, MOF, MOL to coordinate the growing demand for craft and technical skills

The National Productivity Board was established in 1972 to operate on the tripartite basis to look into the total productivity factor



# “Learning to Survive” – 3 GOVERNMENT POLICY MEASURES

3

## RESTRUCTURING THE EDUCATIONAL SYSTEM



Government restructured the education system to emphasise technical and vocational education to increase supply of workers to align with the adoption of the industrialization program.

To quickly expand accessibility to primary education for all Singaporeans

1. To create a young labor force with basic education to support the labor-intensive factories.
2. For the secondary education, all boys and some girls were expected to study technical as well as academic subjects in the early years from 1969 onwards

Another important organ was set up - The Adult Education Board in 1960 to promote adult education.

Its functions also included preparing those who failed their PSLE (14 years old) to take up vocational training in industrial and commercial sectors.

origin

PART 1, Section 2b:

**Learning to Stay Ahead**

# “Learning to Stay Ahead” – From mid 70s to early 80s

## CHANGING FROM A LABOUR INTENSIVE TO A CAPITAL INTENSIVE ECONOMY

origin

1

### THE ECONOMIC SCENE CHANGED VASTLY

By 1980, after two decades of intensive expansion of the manufacturing sector, attracting low skills / low wage manufacturing to meet high unemployment rate, its GDP contribution rose from 12% in 1960 to 28% in 1980

2

### FROM UNEMPLOYMENT TO LABOUR SHORTAGES

Previous fears about unemployment turned into fears about labour shortages with the expansion of the manufacturing sector. This prompted a decisive move in 1979 to raise income through increased productivity

3

### MOVING LOW WAGE & SKILL JOBS OUT

Capital intensive and high skilled employment was encouraged while the MNCs were induced to move low wage and skill jobs out of Singapore.

Due to strong competition in SEA countries it is timely for the strategy change

4

### UPGRADING TO HIGHER- TECH INDUSTRIES

Singapore began to upgrade to higher-tech industries in the 1980s such as wafer fabrication to transition to a capital intensive economy.

Hence, shifting from a third-tier labor intensive industrialising country to a second-tier capital intensive economy.



# origin

## “Learning to Stay Ahead” – From mid 70s to early 80s

## REVISITING THE EDUCATION SYSTEM

1

Shifted the focus from a survival-driven education system to an efficiency-driven one, focusing on upgrading and providing quality education

2

Setting up Industrial Training Board (ITB) in 1973 to meet changing demands for jobs in manufacturing

3

Setting up Council on Professional and Technical Education (CPTe) in 1979. Set quotas for Universities and Polytechnics to meet demands for different kinds of workers, such as technicians and engineers



# origin

## “Learning to Stay Ahead” – From mid 70s to early 80s

## A MORE FLEXIBLE PRE-EMPLOYMENT EDUCATION SYSTEM

1

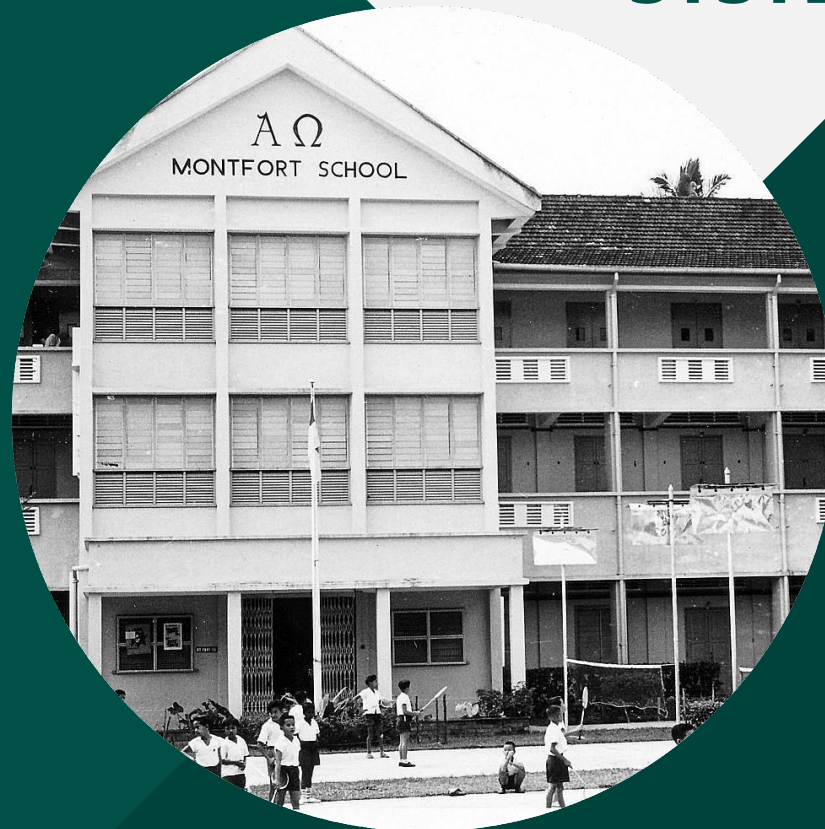
The New Education System (NES) address diverse abilities to prevent talent wastage by reducing attrition

2

Academic streaming was introduced at both primary and secondary levels in 1980

3

The NES provided more post-secondary vocational courses for those less academically-inclined and channelled them to supply the technical workers demand



# origin

## “Learning to Stay Ahead” – From mid 70s to early 80s

## SUPPORT FOR ADULT WORKERS IN THE WORKFORCE

1

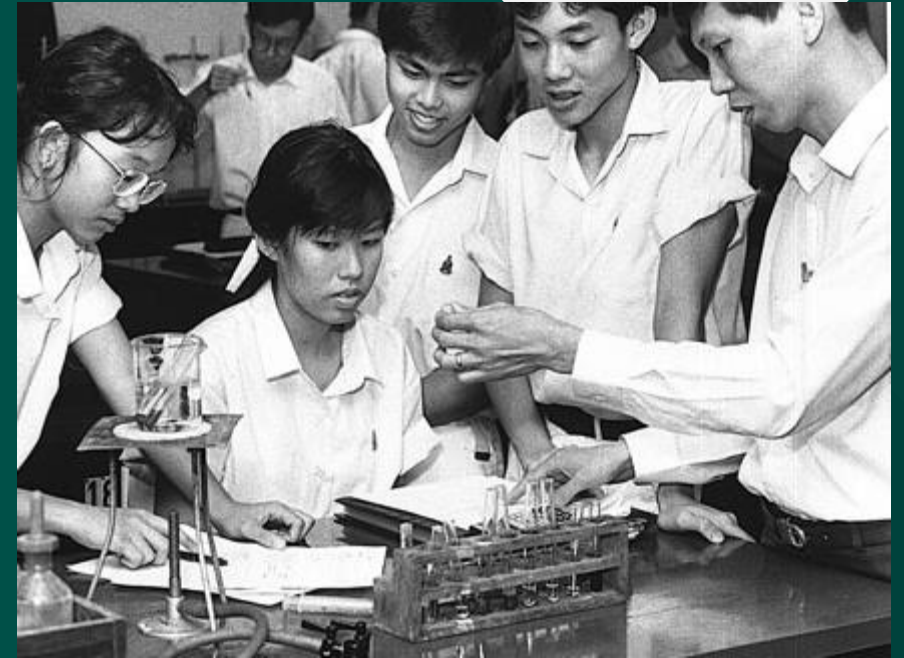
To deal with the poor quality of education and training of the 60s' due to low educational levels, the Skills Development Fund was introduced in 1979 to provide financial incentives to employers to send their workers for training.

2

The Vocational and Industrial Training Board (VITB) was set up in 1979 as a single national authority for training skilled labour, merging ITB and AEB as one entity.

3

The VITB adopted a total approach to vocational training for workers, not just at job-entry but throughout their working life – institution-based courses, industry-based apprenticeships, and continuing education





PART 1, Section 2c:

**Learning to Compete**

# “Learning to Compete” – From mid 80s to early 2000

## ADVOCACY OF LIFELONG LEARNING FOR WORKERS TO STAY RELEVANT & RESILIENT

**Singapore faced  
several challenges  
during this period**

The 1985 economic  
crisis  
The 1997 Asian financial  
crisis  
The rise of the Asian  
market as competitors

**An acute need to focus on  
knowledge and capital  
intensive high-tech  
industries**

Singapore could no longer  
rely on low-skilled but  
moderately waged jobs,  
previously in manufacturing

**A different type of  
worker was  
necessary to  
generate value**

The worker needed to  
create or acquire and  
apply knowledge  
flexibly and  
innovatively

**The advocacy of  
lifelong learning  
assumed a national  
importance**

The Lifelong Learning  
Endowment Fund Act  
was passed in July  
2002



# **“Learning to Compete” – From mid 80s to early 2000**

## **THE ACTIVE ROLE OF VOCATIONAL AND TECHNICAL TRAINING**

**origin**



### **RESTRUCTURING THE VITB TO FORM ITE**

The Institute of Technical Education (ITE) was the product of the restructuring of the VITB in 1992

The VITB itself was formed in 1979

### **APPENTICESHIP PROGRAMS & DIPLOMAS**

The programs were meant to boost skilled trades

ITE also provided diplomas in vocational education for skilled technicians and workers

### **SETTING UP OF CERTIFIED ON- THE-JOB (OJT) CENTRES**

OJT was introduced by ITE as a system to improve the quality of the workforce

In 1994, the certificate for OJT in companies was introduced

ITE also established centres to encourage the implementation of the OJT systems by companies



# origin

## “Learning to Compete” – From mid 80s to early 2000

FOCUS ON  
PRODUCTIVITY

1

Merged the National Productivity Board (NPB) and Singapore Institute of Standards and Industrial Research (SISIR) to form the Singapore Productivity and Standards Board in April 1996

2

Combined under one roof the soft skills of productivity under the NPB and the technical skills under the SISIR

3

SPSB launched its FAST FORWARD video-based open learning programme to assist mid-career workers



# “Learning to Compete” – From mid 80s to early 2000

## INDUSTRY 21 (I21) INITIATIVE

1

EDB launched the Industry 21 initiative in 1998 to lead in the knowledge-driven economy

2

Anticipated that I21 will contribute 40% of our annual GDP and create 20,000 to 25,000 jobs every year over ten years

3

I21 enable Singapore to be a leading competence centre for knowledge-driven activities and to strengthen Singapore as a hub for company HQs and product charters



**EDB**  
singapore





# “Learning to Compete” – From mid 80s to early 2000

## MANPOWER 21 PLAN

1

The Ministry of Manpower was established in 1998, and the Manpower 21 plan was commissioned and finished by 1999

2

The Manpower 21 Plan was launched on 31 Aug 1999 to drive Singapore as a ‘talent capital’ to prepare for the new economy. The Plan is to develop local talent pool with right skills, know-how and mindsets to create new products and markets

3

While the PET system prepare young Singaporeans with a broad-based foundation to learn new skills, they will need new skills when they join the workforce for their working life.

4

A key component of the Manpower 21 Plan was the launch of the National Skills Recognition System on 5 Sept 2000 to enable workers to acquire new skills and upgrade to prepare for structural unemployment due to corporate restructuring and shifts in the economy



origin

PART 1, Section 2d:

**Learning for Life**

origin

# "Learning for Life" – From mid 2000 to early 2010

## DEALING WITH ECONOMIC RECESSION AND GLOBAL AND LOCAL EVENTS

1

### RESTRUCTURING THE ECONOMY

Economic recession due to a series of events:

2001 11 Sep terrorist attacks in US

2002 terrorist attacks in Bali

2003 Acute Respiratory Syndrome (SARS) outbreak

2008 Global Financial Crisis



2

### ALLEVIATE HIGH UNEMPLOYMENT RATES

Contributed to the shrinking job market

An increase in retrenchment

# origin

## “Learning for Life” – From mid 2000 to early 2010

### WORKING TOWARDS AN INNOVATION DRIVEN ECONOMY

**Singapore  
Productivity  
and Standards  
Board**

renamed to  
in 2002

**SPRING**  
singapore  
*Enabling Enterprise*



1

To signify the shift towards an  
innovation-driven economy

2

To promote creativity and raising  
the productivity of workforce to  
sustain growth





# origin “Learning for Life” – From mid 2000 to early 2010

## PUSH FOR LIFELONG LEARNING IN A BIGGER WAY FOR WORKFORCE DEVELOPMENT

1

Setting up **WIDA** on 1 Sep 2003

2

Setting up **WS** SINGAPORE  
WORKFORCE SKILLS  
QUALIFICATIONS in Oct 2005



**National  
Skills  
Standards**

**Industry  
relevant  
skills**

**Modular  
blended  
learning**



# “Learning for Life” – From mid 2000 to early 2010

## FIRST CET MASTERPLAN TO PREPARE WORKERS FOR THE FUTURE

origin

### LAUNCHING OF THE FIRST NATIONAL CET MASTERPLAN IN 2008

The Masterplan was a 10-year blueprint for CET development with the following aims:

- To drive the manpower and education ministries

- To provide more funds for the Lifelong Learning Endowment Fund

- To offer more courses for more industries to train workers each year

### THE SETTING UP OF THE INSTITUTE FOR ADULT LEARNING (IAL)



The IAL was set up in 2008, and was responsible for 2 areas:

- Developing trainer capability to deliver curriculum based upon the WSQ CET frameworks

- Conducting applied research into adult training for enhanced training quality and effectiveness

PART 1, Section 2e:

# **Learning for a New World**



# **“Learning for a New World” – From mid 2010 to present**

## **GLOBAL EVENTS AND CHALLENGES**



### **TRADE FRICTION BETWEEN CHINA & US**

The rising tide of trade protectionism and trade friction between the US and China is hurting Singapore's economy



### **THE INDUSTRIAL REVOLUTION 4.0**

Job displacements, involuntary unemployment, altering the nature of work



### **COMPETITION WITH LOW-COST PRODUCERS**

Competition has intensified, affecting the manufacturing sector

Competition is coming from internal and external sources

# 2<sup>nd</sup> CET MASTERPLAN 2020 TO DRIVE LIFELONG LEARNING

# “Learning for a New World” – From mid 2010 to present

## LAUNCHING OF THE 2<sup>nd</sup> NATIONAL CET MASTERPLAN AND SKILLSFUTURE INITIATIVE IN 2014

The government formulated the 2<sup>nd</sup> CET Masterplan 2020 to drive the next wave of lifelong learning to strengthen human capital

## THE SKILLSFUTURE INITIATIVE

Introduced in 2014 to provide lifelong learning and skills development opportunities.

Anticipate a rise of emerging and new growth industries that will cause disruption to businesses and job skills for new jobs

## INTRODUCED SECTORIAL MANPOWER STRATEGIES

The Sectorial Manpower Strategies (SMS) were drafted in conjunction with key stakeholders to co-develop medium-term manpower and skills plans for each key sector to support industry growth and productivity efforts.

# “Learning for a New World” – From mid 2010 to present

## INDUSTRY TRANSFORMATION MAPS (ITM)

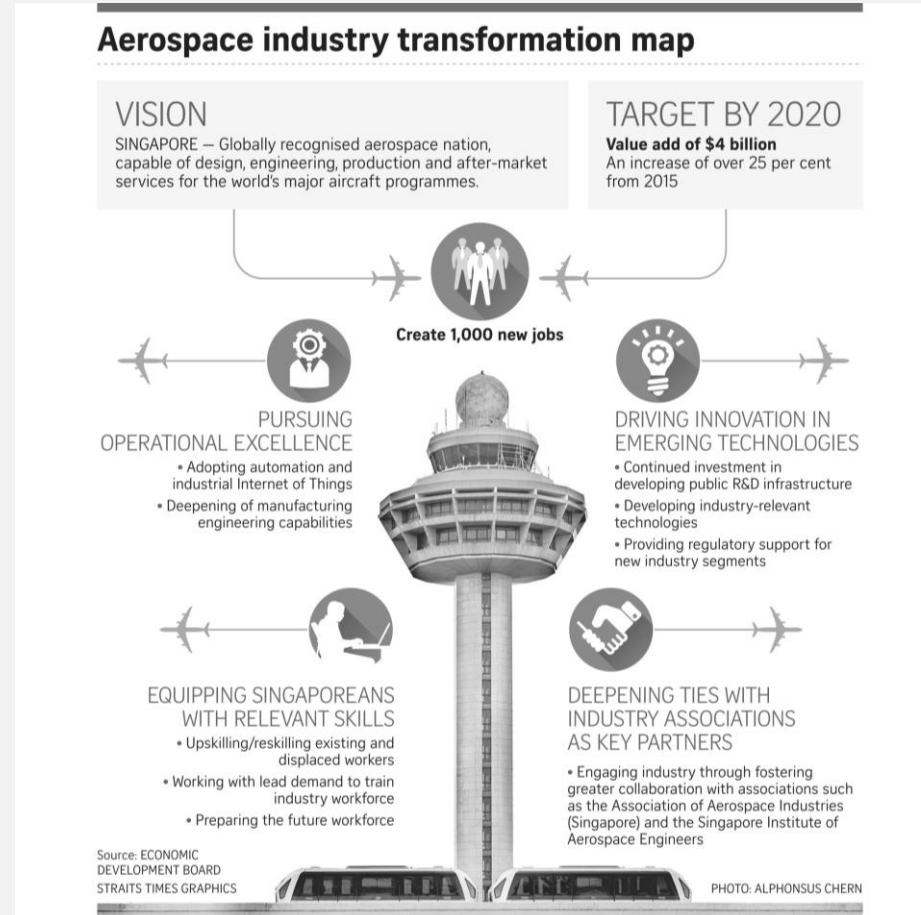
origin

1

### THE INDUSTRY TRANSFORMATION MAPS

The ITMs were rolled out to help 23 key sectors to ride the wave of digital disruptions

The ITMs were developed by the Committee on the Future Economy (CFE), whose members were government ministers, the private sector, and the labour movement



2

### PURPOSE OF THE ITM

The ITMs guide economic restructuring in four key pillars:

Innovation

Productivity

Job design and upskilling

Internationalisation



origin

PART 1, Section 3:

**Learning points**

origin

## TABLE DISCUSSION: (5 MINS)

At your table, please discuss and share among yourselves what your observations are so far on Singapore's approach in economic strategies and workforce development?



# origin

## LEARNING POINT 1: TIMELY STRATEGIC REVIEWS

1

Singapore conducted timely strategic reviews and formulated an overall economic direction on jobs creation and employment training needs

2

These were responsive to changing economic conditions and global trends and adopted **strategic pragmatism** and a **developmental state model**

eg

The government adopted the 1961 United Nations study proposing an industrialisation export program to meet immediate economic aims and tackle unemployment



# origin

## LEARNING POINT 2: GOVERNMENT INTERVENTIONS

1

Under the developmental state model, government must take an active role in workforce development to meet economic aims

2

Such governmental interventions include establishing governmental organs to actualise the reviews and plans formulated

eg

The government set up the Economic Development Board on 1 Aug 1961 to spearhead the industrial drive and solicit foreign investment





# origin

## LEARNING POINT 3: CONTINUOUS REVIEW EFFORTS

1

Government should continuously review the appropriateness of established agencies and institutions in both Pre-Employment (PET) and Continuing Education Training (CET) systems

eg

The formation of the Vocational and Industrial Training Board (VITB) on 1 Apr 1979 merged the Industrial Training Board set up in 1973 and the Adult Education Board (AEB) set up in 1960

This was done to integrate the activities of the education system with the changing demands of manufacturing jobs



# origin

## LEARNING POINT 4: TRIPARTITE COLLABORATION

1

Tripartite collaboration and consultative dialogue with relevant stakeholders is key to ensuring everyone is on the same page

eg

Tripartism in Singapore came into being in January 1965 when unions and employers signed an agreement with the government to work together for the good of the country



# origin

## LEARNING POINT 5: GOVERNMENT READINESS AND SPEED

1

Government must be ready to respond quickly and effectively during economic downturns

2

This helps save jobs by offering financial or training packages

eg

The government implemented the “Skills Program for Upgrading and Resilience” (SPUR) initiative in 2009, providing S\$600 million over 3 years to send employees for training and cut employer costs, so that workers will be prepared to leverage on the next economic upswing





# origin

## Part 2:

Case study of global best practices - CET Master Plans and SkillsFuture





# origin

## Scope of Part 2

1. Singapore's CET landscape prior to SkillsFuture
2. Challenges faced
3. What is SkillsFuture and why
4. SkillsFuture suite of initiatives and applications
5. Government policy-level interventions



origin

PART 2, Section 1:

**Singapore's CET landscape  
prior to SkillsFuture**

# Overview of Singapore's Continuing Education and Training (CET) landscape

origin

## Learning for Life



Singapore Workforce Skills Qualifications (WSQ) frameworks launched

National Productivity and Continuing Education Council (NPCEC) formed

2003

2005

2008

2010

Workforce Development Agency (WDA) set up as a National Continuing Education and Training (CET) body

First Continuing Education and Training (CET) Masterplan launched



## Learning for a New World

Roll out of SkillsFuture initiatives

Committee on the Future Economy (CFE) formed



WDA restructured to form SkillsFuture Singapore (SSG) and Workforce Singapore (WSG)

2014

2015 - 2016

2017

Set up two new CET campuses  
2<sup>nd</sup> CET Masterplan (CET 2020) developed

Future Economy Council (FEC) formed

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# Workforce Skills Qualifications – WPLN & WPS

**33**

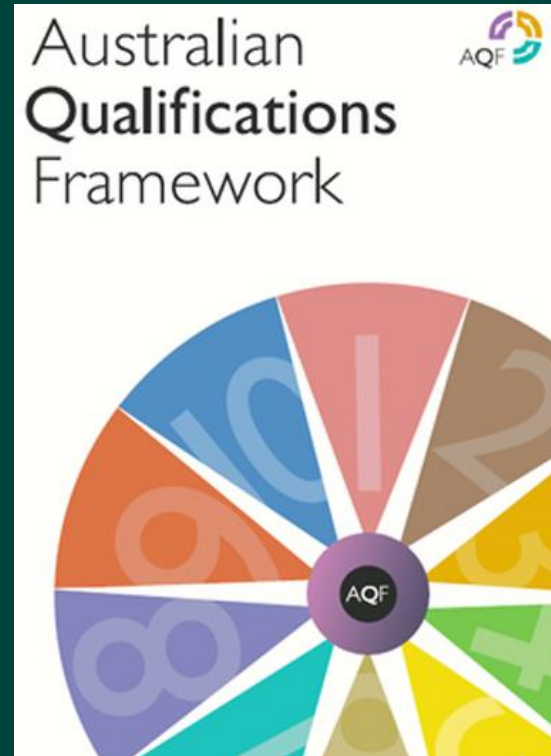
Industry  
Competency Maps

**3L**

Workplace Literacy &  
Numeracy Program (WPLN)

**2L**

Workplace Skills  
(Soft skills) (WPS)



**NVQ**

**NVQ**  
(National Vocational  
Qualification)



**SINGAPORE  
WORKFORCE SKILLS  
QUALIFICATIONS**

# Overview of Singapore's Continuing Education and Training (CET) landscape

origin

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2015 - 2016

2017

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Future Economy Council (FEC) formed



## 1<sup>st</sup> CET Masterplan

1. To build the workforce of the future – 60% of our resident workforce will have diploma qualification by 2020, as compared to 36% in 2007
2. To equip Singaporeans with the skills for job opportunities in new growth and emerging industries
3. Government topped up the Lifelong Learning Endowment Fund by \$800 million in FY 2008 to \$3 billion, and eventually to \$5 billion to support:
  - First class providers
  - 10 new CET centres in growth areas
  - Increase training capacity from 22,000 to 80,000 by 2010
  - Setting up Institute for Adult Learning to develop trainer capability and conduct applied research into adult training

# Overview of Singapore's Continuing Education and Training (CET) landscape

origin

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2017

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## 2<sup>nd</sup> CET Masterplan 2020

1. **Increased involvement by employers in building and valuing skills**
  - Work with sector lead agencies to develop Sectoral Manpower Strategies
  - WSQ frameworks to develop sectoral competency frameworks underpin PET and CET programs; to help HR practices for their employees and individuals to plan their careers
  - Work with SMEs
2. **Enable individuals to make informed learning and career choices**
  - Build a national portal for online education, training and career guidance
  - Set up a Lifelong Learning Exploration Centre at Lifelong Learning Institute
3. **Wide range of high-quality learning opportunities:**
  - Blended learning and Workplace-based learning
  - Set up IN.LAB to support CET partners

# origin

## The CET Campuses were built

TOP in Jun 2013



**Devan Nair  
Institute for  
Employment &  
Employability  
(DNIEE)**



**Lifelong Learning  
Institute (LLI)**



TOP in Oct 2013



# Lifelong Learning Exploration Centre

origin

Empowers individuals to take charge of their personal lifelong learning journey as well as career planning and development.



Free career profiling test + Discover a diverse range of careers and training courses across industries





1. Catalyse learning innovation
2. Space for innovation
3. Facilitate collaboration
4. Spur knowledge exchange
5. Matchmake expertise
6. Strengthen capabilities



**Innovation Lab (iN.LAB)** to support CET partners and practitioners



# PART 2, Section 2:

## **Challenges faced**

# Challenges faced



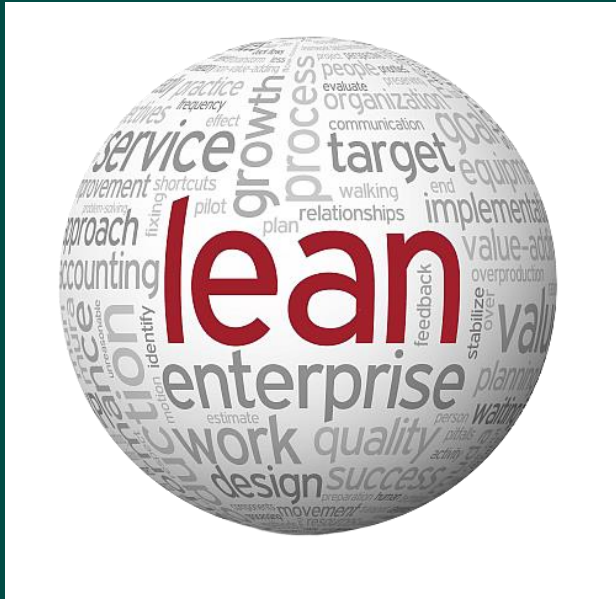
Shrinking and  
rapidly aging  
workforce +  
changing nature  
of jobs



Rising  
expectations as  
more seek  
tertiary level  
qualifications



Lacklustre  
productivity due  
to external and  
internal factors



Employers  
cannot release  
staff for training

origin

**The mode of learning is  
changing as employers demand  
for workplace-relevant learning  
closer to the workplace**



Transfer of learning is difficult:

Actual job tasks



Skills learnt

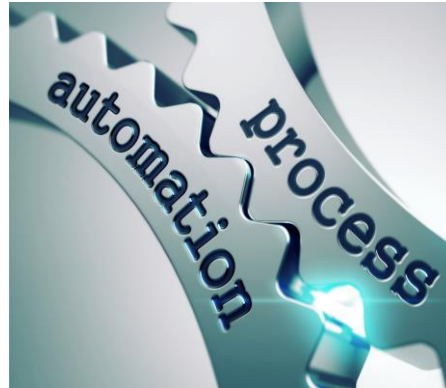
# Learning in an era of disruption, transformation and reinvention has to be ADAPTIVE, FLEXIBLE, EFFECTIVE & INNOVATIVE

**DISRUPTION**



*Business Models*

**TRANSFORMATION**



*Work Processes*

**REINVENTION**



*Job & Skills*



## Why firms don't do more skills training

50%

Difficult to commit employees for such initiatives due to lean workforce

38%

Other priorities to focus resources and time on

18%

Lack of relevant targeted training programmes for my sector

17%

Insufficient competent human resources personnel to support organisation

6%

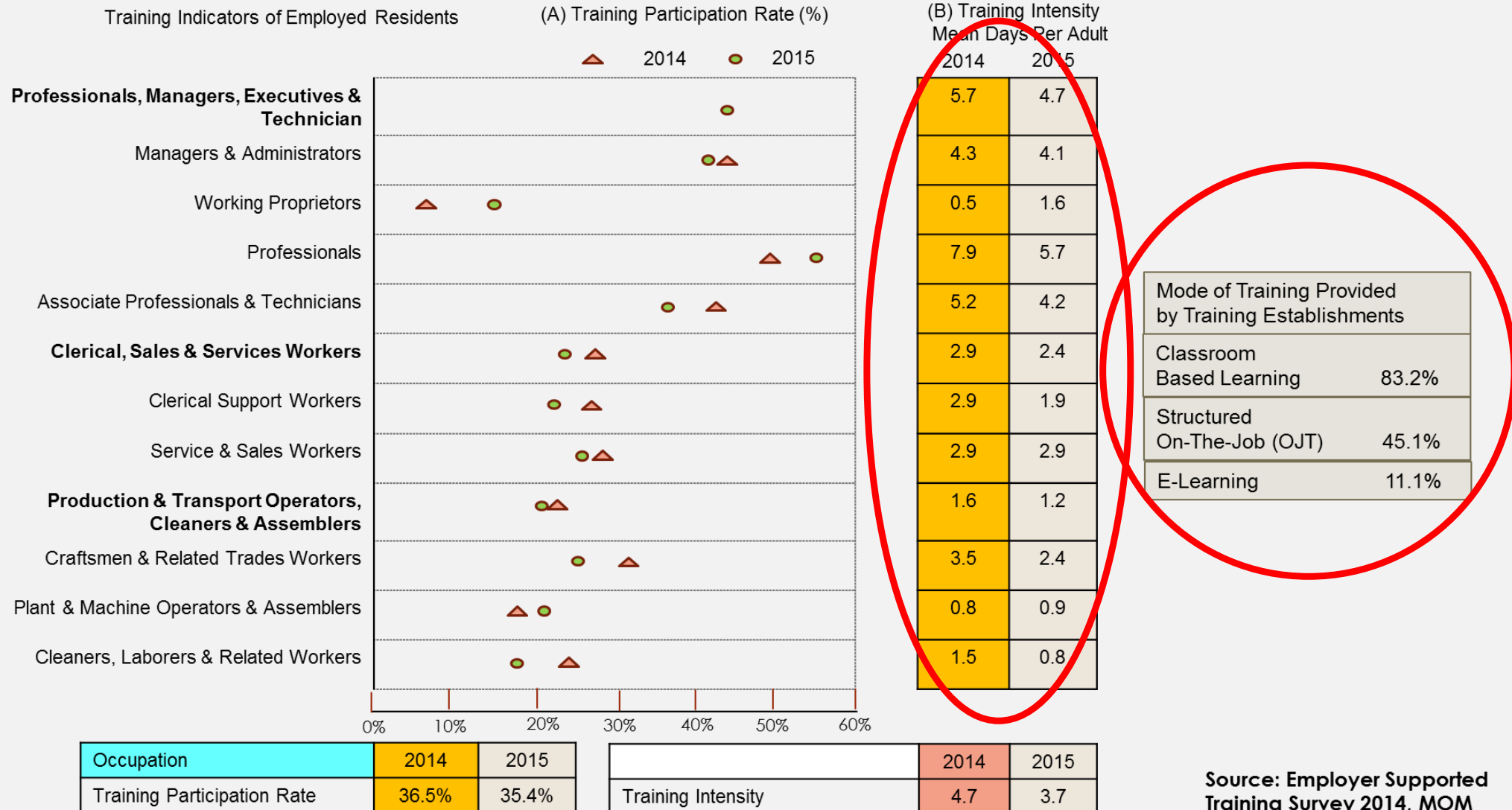
Lack of leadership buy-in to participate in such initiatives

Source: SME DEVELOPMENT SURVEY 2016 STRAITS TIMES GRAPHICS

**THE STRAITS TIMES**

Published 3 Nov 2016

By 2014, the Singapore workforce generally participates in training, however training intensity fell nearly across board from 2014 to 2015, and modes of training provided are limited to 3 types



Source: Employer Supported Training Survey 2014, MOM

# origin

To recap, interventions that improved the situation:

## **DEMAND SIDE INTERVENTIONS**

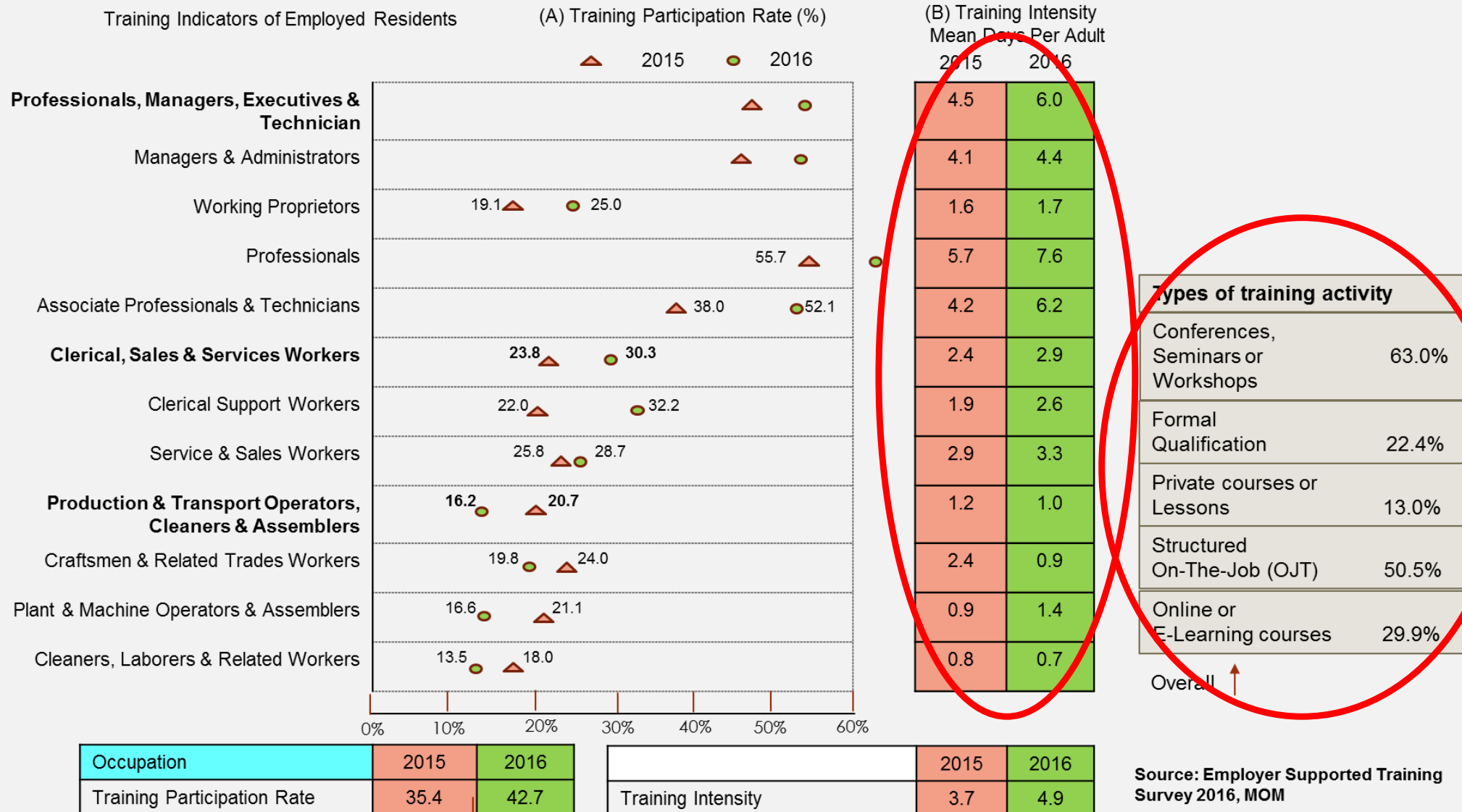
- Increase in training capacity from 22,000 to 80,000

## **SUPPLY SIDE INTERVENTIONS**

- Funding to support more 1<sup>st</sup> class training providers
- 10 new CET centres in growth areas
- Introducing Skills Development Fund and Lifelong Learning Endowment Fund to subsidise training costs
- Introducing blended (online) and workplace-based learning



By 2016, the situation has improved with higher participation rates, training intensity, and increased types of training





## PART 2, Section 3:

**What is SkillsFuture and why**

# SkillsFuture Singapore was set up as a statutory board under the Ministry of Education on 3 Oct 2016

origin

1. To sharpen focus on skills development and drive SkillsFuture at an operational level
2. SkillsFuture Singapore will coordinate actions on both demand and supply-side challenges with agencies, and synergise with pre-employment training (PET) under the Ministry of Education



1. Drive and coordinate the SkillsFuture movement
2. Strengthen the ecosystem of quality education and training, including adult training infrastructure and adult educators
3. Promote a culture of lifelong learning through pursuit of skills mastery
4. Raise quality of private education institutions and training providers

1. Statutory board formed on 4 Oct 2016 under Ministry of Manpower (MOM)
2. Help workers meet their career aspirations and secure quality jobs
3. Help companies to become manpower-lean enterprises to remain competitive

A banner illustration with a red background featuring a network of white geometric lines. On the left, a man in a suit stands on a white pedestal, looking through a telescope and holding a briefcase. Various white icons float around, including a beaker, a calculator, a smartphone, a shopping cart, a chef's hat, a lightbulb, and a ship. On the right, a stylized city skyline is visible.

# SKILLSFUTURE

## Vision

A nation of lifelong learners;  
a society that values skills mastery

## Mission

Enable individuals to learn for  
life, pursue skills mastery  
and develop fulfilling careers, for  
a future-ready Singapore

Mission tagline

**Build a better  
future based  
on skills**

# origin

## What is SkillsFuture?

A **national movement** to provide Singaporeans with the **opportunities to develop their fullest potential through life** through skills mastery and lifelong learning

1. Declining workforce growth and an aging population
2. Technology and globalisation are changing jobs and skills
3. Aspirations for higher academic qualifications remain strong



1. Need to move towards a productivity and innovation-driven economy
2. Need to ensure workers' skills remain relevant and future-ready
3. Need to ensure good employment outcomes while preventing a "paper chase"





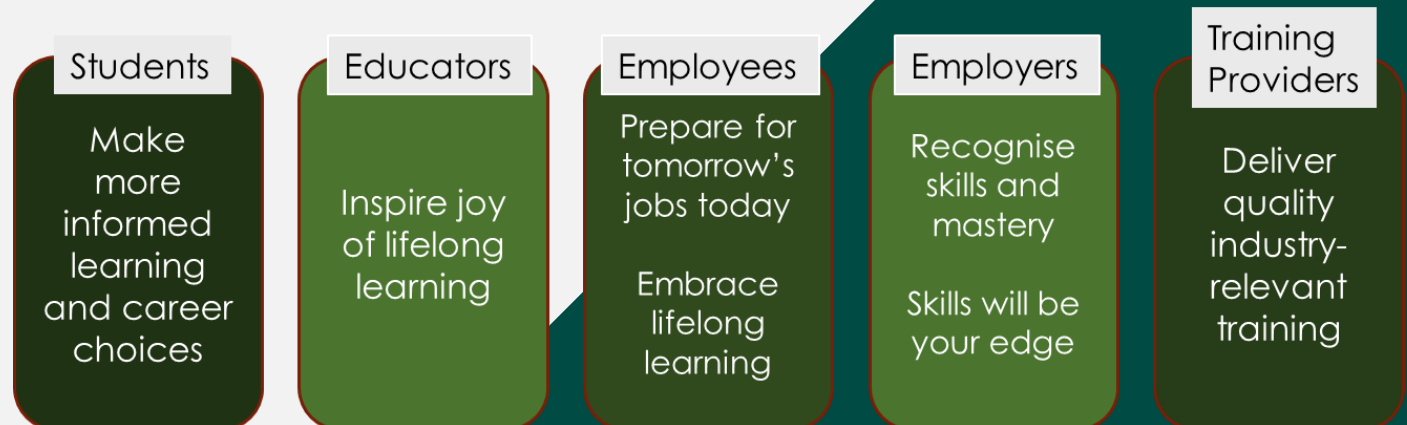
# origin

## What does **SkillsFuture** cover?

1. Help individuals to make well-informed choices in education, training and careers
2. Develop an integrated, high-quality system of education and training that responds to constantly evolving industry needs
3. Promote employer recognition and career development based on skills and mastery
4. Foster a culture that supports and celebrates lifelong learning

"Our future must be about mastery of skills, in every job, and enabling every Singaporean to develop themselves to the fullest. We are going to put full effort into this, and it involves everyone – Government, employers, unions and all of us as individuals."

- **DPM Tharman Shanmugaratnam, SkillsFuture Council 2014**



# SSG supports a diverse CET landscape of public and private training providers

origin

## Autonomous Universities



## Polytechnics & ITE



## Government – linked Providers



## Private Training Providers



## Trade Associations' Training Arm



## Online Private Providers



## In-house Providers\*



\* Refers to business enterprises who conducts their own in-house WSQ programs



## PART 2, Section 4:

**SkillsFuture suite of  
initiatives and applications**



# Starting from the schooling years

origin

## Education & Career Guidance (ECG) & MySkillsFuture

Improved and **systematic ECG** from early schooling years and throughout one's working life.

**Personal online portfolio** for learning and career needs, with resources that allow individuals to take charge of their career path and lifelong learning journey.



## Enhanced Internships

Better support for **structured workplace learning**, locally and overseas.

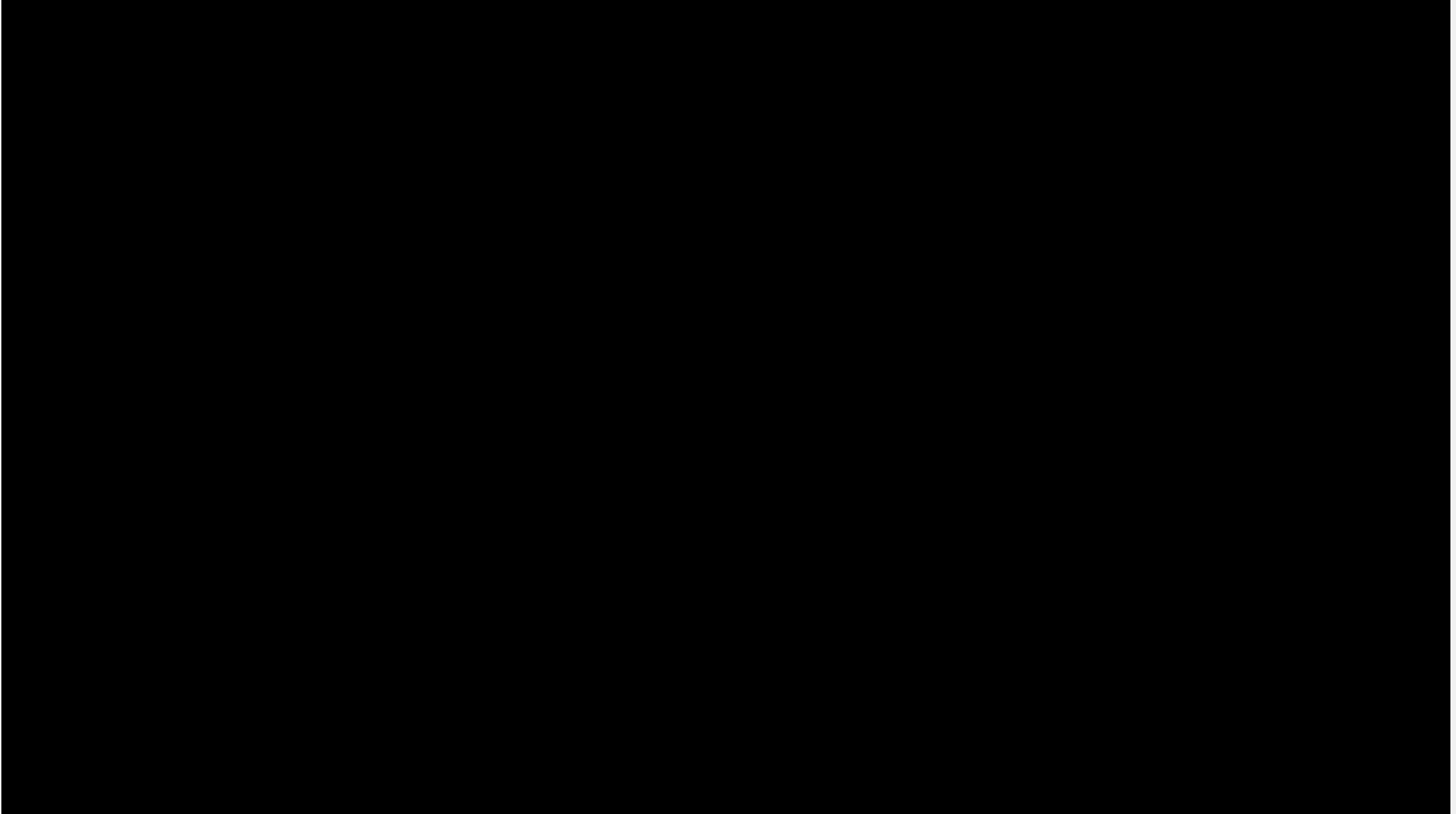
More **defined learning outcomes**, better **integration** of classroom and internship learning, **extended internships** to support better learning.

## Young Talent Program

More **meaningful** internship and **immersion** experience for students.

**MySkillsFuture Portal** – How can MySkillsFuture  
help in your skills and career development

**origin**



# origin

## Starting from the schooling years

### SkillsFuture Earn & Learn Program

Provides **fresh graduates** from polytechnics and ITE with a **head-start in careers** related to their discipline of study.

**\$5,000** sign-on incentive to **individuals**; up to **\$15,000 employer grant** per trainee.

12-18 month work-study program with **industry-recognised certifications** and **career advancement pathways**.

### SkillsFuture Work- Study Degree

Allows **university students** to **acquire deep skills** while facilitating transition to the workplace after graduation.

**Institution-based learning** interlaced with **structured on-the-job training** with partner companies.



# SkillsFuture Earn & Learn Program for the Game Development Sector

origin





# origin

## Taking Learning into our Careers

### SkillsFuture Credit

Strengthens **individual ownership** of skills development and lifelong learning.

Credit **will not expire** and **can be accumulated**.

Can be used for **approved skills-related courses** on top of existing government course subsidies.

### SkillsFuture Qualification Award

Encourages individuals to **attain WSQ full qualifications** which equip them with skills to **perform their jobs competently**, pursue **career progression** and job opportunities.

Cash award of **\$200** or **\$1,000** per WSQ full qualification attained, depending on types of WSQ qualifications.





## Taking Learning into our Careers

### SkillsFuture Mid-Career Enhanced Subsidy

At least **90% of programme cost for MOE-funded** full-time and part-time courses ranging from Nitec to postgraduate level.

**Up to 90% course fee subsidies for SSG-supported** certifiable courses.

Applicable to **individual-initiated** and **employer-sponsored** training.

### More Skills-Based Modular Courses at PSEIs

Wider range of **flexible, modular, bite-sized** courses.

**No cap** on number of modules that individuals can take.

All diploma-level modular courses will be subsidised at same level as part-time diploma courses.



## Targeted Support for Career Progression

origin

### SkillsFuture Study Award

Encourages and supports **early to mid-career Singaporeans** in developing and deepening **specialist** skills in priority sectors.

**\$5,000** monetary award for out-of-pocket expenses incurred.

Given on top of existing government course fee subsidies, **no bond**.

For **individual applicants** and employer nominations.

### SkillsFuture Fellowships & SkillsFuture Employer Award

**Recognises and develops Singaporeans with deep skills** to achieve **skills mastery** in their respective fields.

**\$10,000** monetary award for out-of-pocket expenses incurred, **no bond**.

For individuals with work experience and **track record of contributing to skills development of others**.

**Exemplary employers** recognised with SkillsFuture Employer Award.



# SkillsFuture Fellowships and SkillsFuture Employer Awards 2019

origin





# origin

## Targeted Support for Career Progression

### SkillsFuture for the Digital Workplace

**Bite-sized, modular training programs** that aim to build **skills and mindsets needed for Singapore's future economy.**

Prepares the workforce with future-ready skills through **understanding emerging technologies** and their impact on work, learning to **interpret and use data**, as well as cultivating **a mindset for change, innovation and resilience.**



# origin

## Targeted Support for Career Progression

### SkillsFuture Series

**Bite-sized, modular training programs** that aim to develop **Singaporean workforce in priority and emerging skills.**

8 priority and emerging areas: - **Advanced Manufacturing; Cybersecurity; Data Analytics; Digital Media; Entrepreneurship; Finance; Tech-Enabled Services; and Urban Solutions** offered by IHL in three proficiency levels (i.e. basic, intermediate and advanced)



# Targeted Support for Career Progression



## SkillsFuture Engage for Individuals

**Community outreach** to help more Singaporeans benefit from SkillsFuture and guide them in finding right resources to prepare themselves for the future.

**Basic career and training advisory** delivered by the Community Development Councils (CDCs).



## TechSkills Accelerator (TeSA)

Supports professionals to acquire **new skills and knowledge in the ICT sector** to keep pace with the fast-moving digital landscape.

Provides fresh or mid-level professionals from the ICT or STEM disciplines with relevant skills for technical roles in demand, placement into tech job roles, and industry-recognised qualifications.





## Closer Collaborations with Industry

origin

### SkillsFuture Career Advisors Program

Taps on **knowledge and expertise of industry veterans** to help individuals make informed career choices.

Available for Infocomm Technology and Early Childhood Care and Education sectors

1



2

### SkillsFuture Mentors

Developing a **pool of mentors to help SMEs** develop the potential of their workforce.

Mentors with **relevant sector-specific experience matched** with SMEs by **industry partners** (eg. TACs).

Help supervisors/managers to **develop coaching skills**.

### P-Max

3

Facilitating **PME placements in SMEs**.

Up to **90% course fee funding** for SME and PME workshops.

**\$5,000 assistance grant** for SMEs who retain PMEs for 6 months.



# origin

## Closer Collaborations with Industry

### SkillsFuture Leadership Development Initiative

**Developing the next generation of business leaders** by helping aspiring Singaporeans to acquire **leadership competencies** and **critical experiences**.

Designing and implementing **leadership development roadmaps**, including general leadership and management programmes.

**On-the-job training opportunities** across functions and/or markets.

### Skills Framework (SF)

**Provides sector-specific key information** on employment, career pathways, occupations/job roles, as well as existing and emerging skills required.

Creates a **common skills language** and **facilitates skills recognition** among individuals, employers and training providers.



## Skills Framework for Human Resource

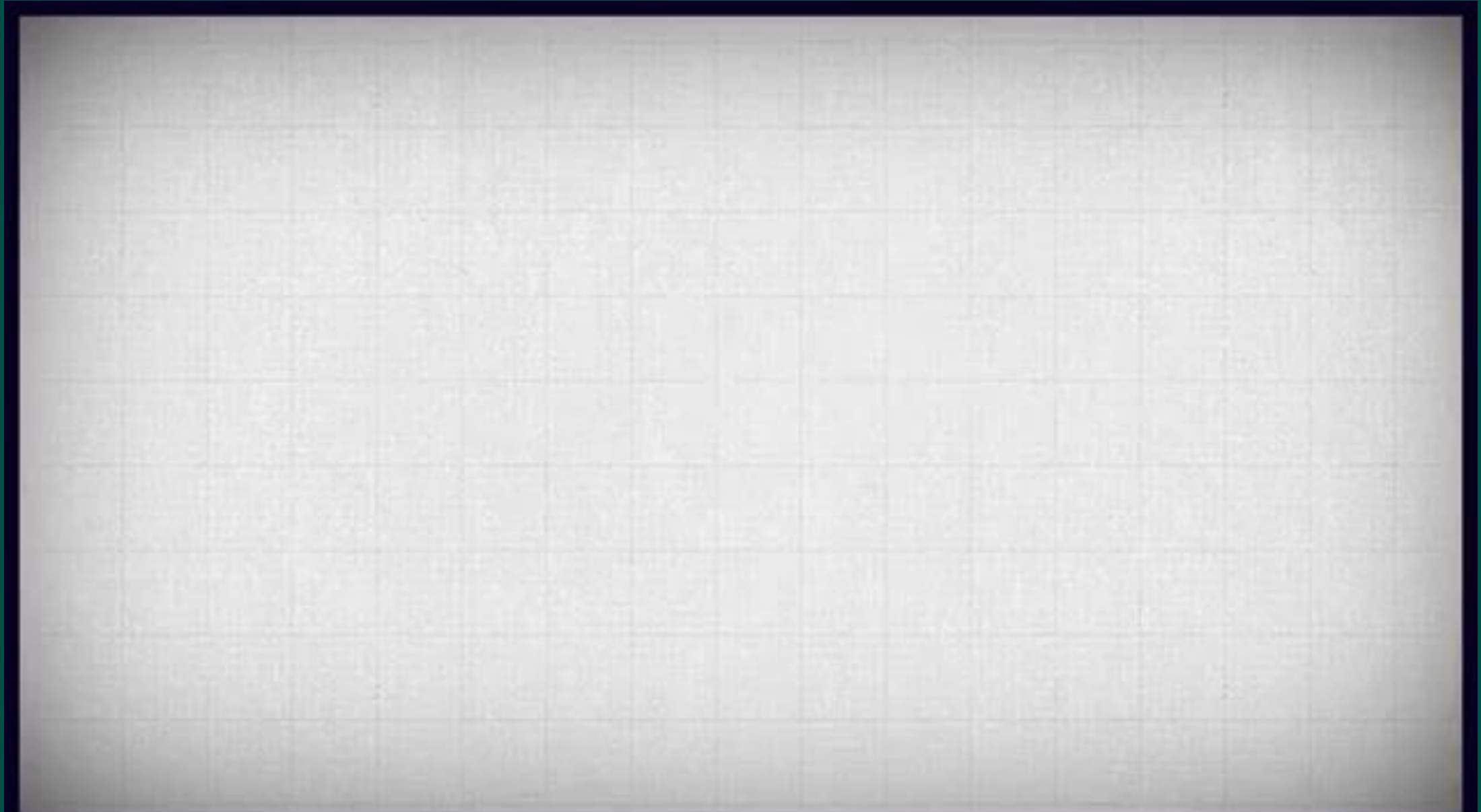
A Guide to Occupations and Skills

An initiative of

**SKILLS**future

# ST Engineering's SkillsFuture Journey

origin



origin

## PART 2, Section 5:

**Forming of high-level  
governance committee,  
Council for Future Economy  
& development of Industry  
Transformation Maps**

# Overview of Singapore's Continuing Education and Training (CET) landscape

origin

## Learning for Life



Singapore Workforce Skills Qualifications (WSQ) frameworks launched

National Productivity and Continuing Education Council (NPCEC) formed

2003

2005

2008

2010

Workforce Development Agency (WDA) set up as a National Continuing Education and Training (CET) body

First Continuing Education and Training (CET) Masterplan launched



## Learning for a New World

Roll out of SkillsFuture initiatives

Committee on the Future Economy (CFE) formed



+



WDA restructured to form SkillsFuture Singapore (SSG) and Workforce Singapore (WSG)

2014

2015 - 2016

2017

Set up two new CET campuses  
2<sup>nd</sup> CET Masterplan (CET 2020) developed

Future Economy Council (FEC) formed



# COMMITTEE ON THE FUTURE ECONOMY REPORT LAUNCH



**In 2016** the Committee on the Future Economy (CFE) was formed with 5 sub-committees :

- (1) Future Corporate Capabilities and Innovation
- (2) Future Growth Industries and Markets
- (3) Future of Connectivity
- (4) Future City
- (5) Future Jobs and Skills



Committee representatives are from both the private and public sectors

Each sub-committee will be co-chaired by a Minister and a private sector CFE member

[futureeconomy.sg](https://futureeconomy.sg) serves as a comprehensive site for those keen to find out more



**In**  
**2017** the Future Economy Council (FEC) drives the growth and transformation of Singapore's economy for the future:

Chaired by DPM and Minister for Finance, Mr Heng Swee Keat, the Council comprises members from government, industry, unions, and educational & training institutions

The FEC will oversee the implementation of the recommendations put forth by the CFE

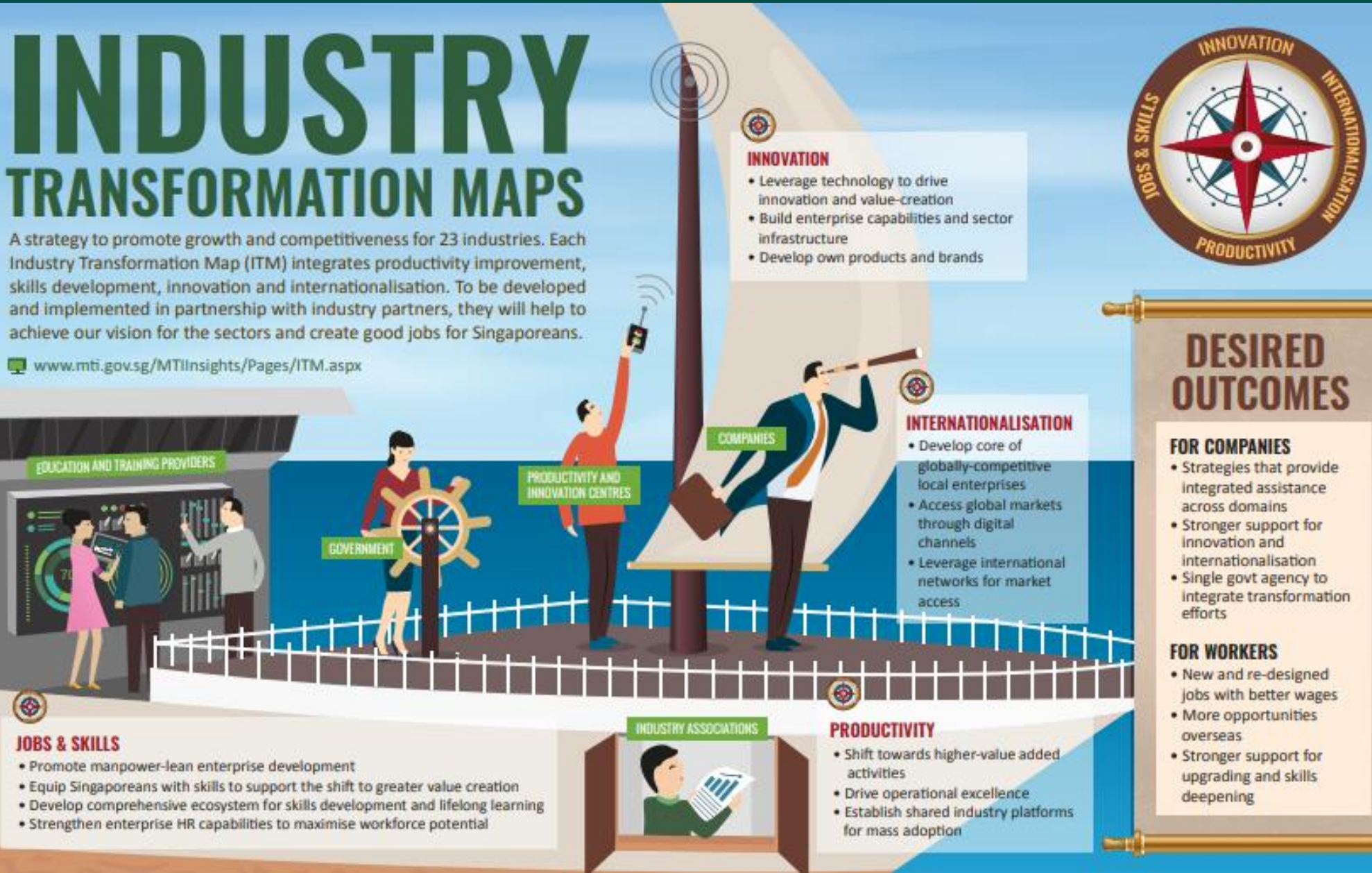
The FEC will build on the work of the earlier Council for Skills, Innovative and Productivity (CSIP), which includes SkillsFuture initiatives and Industry Transformation Maps



# INDUSTRY TRANSFORMATION MAPS

A strategy to promote growth and competitiveness for 23 industries. Each Industry Transformation Map (ITM) integrates productivity improvement, skills development, innovation and internationalisation. To be developed and implemented in partnership with industry partners, they will help to achieve our vision for the sectors and create good jobs for Singaporeans.

[www.mti.gov.sg/MTIInsights/Pages/ITM.aspx](http://www.mti.gov.sg/MTIInsights/Pages/ITM.aspx)



## Six Clusters of Industries

origin



MANUFACTURING



BUILT ENVIRONMENT



TRADE &  
CONNECTIVITY



ESSENTIAL  
DOMESTIC SERVICES



MODERN SERVICES



LIFESTYLE



## 23 Industry Sectors within the Six Clusters

origin

### Manufacturing



Precision Engineering



Energy & Chemical



Marine & Offshore



Aerospace



Electronics

### Built Environment



Construction



Real Estate

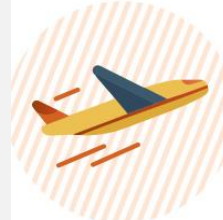


Security

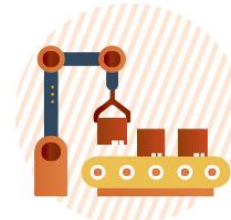


Environmental Services

### Trade & Connectivity



Air Transport



Logistics



Land Transport



Sea Transport



Wholesale Trade

### Essential Domestic Services



Healthcare



Education

### Modern Services



Professional Services

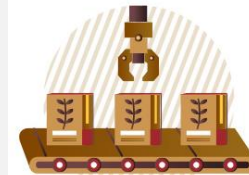


Financial Services



ICT and Media

### Lifestyle



Food Manufacturing



Food Services



Hotel



Retail

origin

## Part 3:

iR 4.0, Future of  
Work & Talent  
Management





# origin

## Scope of Part 3

1. Concluding remarks of Singapore's case study
2. Workforce development & lifelong learning
3. Understanding iR 4.0 & Future of Work
4. Disruptive technologies and concerns of HRM in iR 4.0
5. Application of disruptive technologies and workforce development



origin

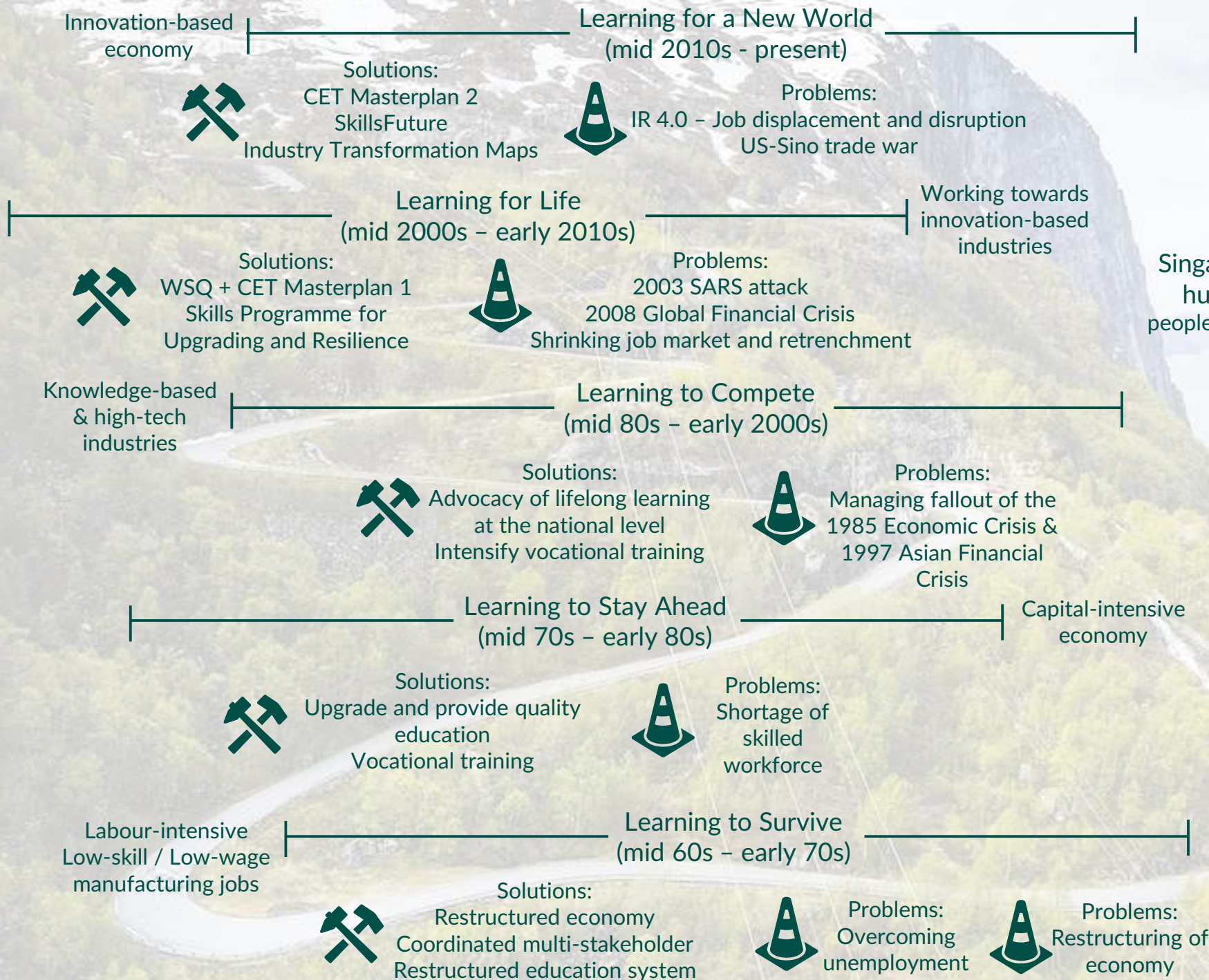
PART 3, Section 1:

**Concluding remarks of  
Singapore's case study**



# SINGAPORE - CASE STUDY

From 3<sup>rd</sup> world to a 1<sup>st</sup> world country



**Context:**  
Singapore only has human resource: people are the building blocks

Economic development via workforce development

through a HR centered approach done at:

- (1) Macro level (country)
- (2) Meso level (industry)
- (3) Micro level (company)

Strategic pragmatism  
Developmental state model  
CET Masterplan 1 & 2





# Nation-building, an ongoing journey & work-in-progress

## STRATEGIES:

- 1) Conduct timely strategic reviews
- 2) Initiate State's interventions
- 3) Continue to learn and review our strategies
- 4) Adopt a tripartite collaboration and public & private partnership
- 5) Act readily and quickly

There will always be new internal and external challenges... but what is important is the quality of the lubricant oil we use for our workforce development engine.

**Our citizens must become lifelong learners.**



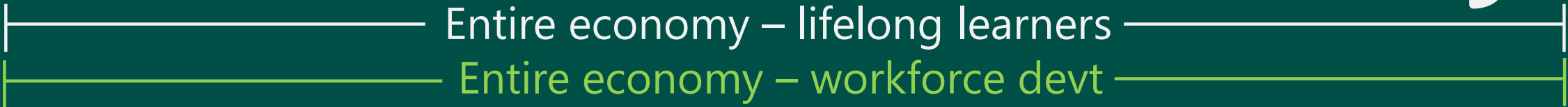
origin

PART 3, Section 2:

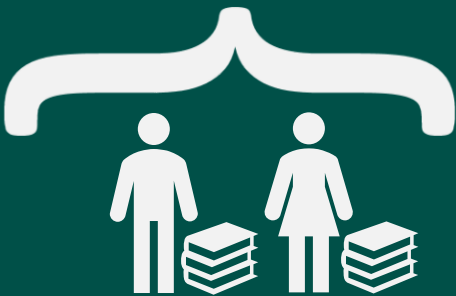
**Workforce development &  
lifelong learning**

# Relationship between lifelong learning & workforce development

origin



Industries



Friends, families, workplaces

Workforce development  
at company level



Individual



# origin

## What is lifelong learning?

It is **ongoing, voluntary** and **self-motivated learning** throughout the **various stages of one's life**.

It can be done for **personal or professional reasons**, or a mixture of both.



Due to the **increased pace of change and disruption**, **shortened life cycles of skill competencies**, and **longer lifespans**, learning is better seen as an **ongoing cycle** across our entire life.





## Definition and Purpose of Lifelong Learning

1996 Delors Report adopted by UNESCO on the 4 pillars of learning:

1. **Learning to know** – broad general and cross-subject knowledge
2. **Learning to do** – occupational skills, flexibility and teamwork
3. **Learning to be** – personality, autonomy, judgment and personal responsibility
4. **Learning to live together** – understanding others and appreciating interdependence

origin

PART 3, Section 3:

# **Understanding iR 4.0 & Future of Work**

# origin

## Understanding iR 4.0

A recap of the past industrial revolutions:

**1<sup>st</sup> iR** : used water and steam power to mechanise production.

**2<sup>nd</sup> iR** : utilised electric power to create mass production.

**3<sup>rd</sup> iR** : used electronics and information technology to automate production.

The current industrial revolution...

...is a wave of digital transformation that is characterised by a range of new technologies that are fusing physical, digital and biological worlds.

It will impact all disciplines, economies and industries, and it will challenge existing ideas.



"The 4<sup>th</sup> Industrial Revolution will fundamentally alter the way we live, work and relate to one another."

- **Klaus Schwab,**  
**Founder & Executive**  
**Chairman of the World**  
**Economic Forum**



# What sets the 4<sup>th</sup> iR apart from the others?

## Velocity

The rate which current breakthroughs are happening has no historical precedent; it is happening at an exponential rate rather than a linear pace.



## Scope

Almost every industry in every country at varying stages of development is being disrupted; no one will be spared from the challenges of remaining relevant.



## Extent of systems impact

The breadth and depth of these changes herald the transformation of entire systems of production, management, and governance.



## PART 3, Section 4:

# **Disruptive technologies and concerns of HRM in iR 4.0**

## Examples of disruptive impact by iR 4.0



# Handle Robot Reimagined for Logistics

origin





This DNA test claims it allows prospective parents to weed out IVF embryos with a high risk of disease or low intelligence.

# The world's first Gattaca baby tests are finally here

The DNA test claims to let prospective parents weed out IVF embryos with a high risk of disease or low intelligence.

by **Antonio Regalado**

Nov 8, 2019

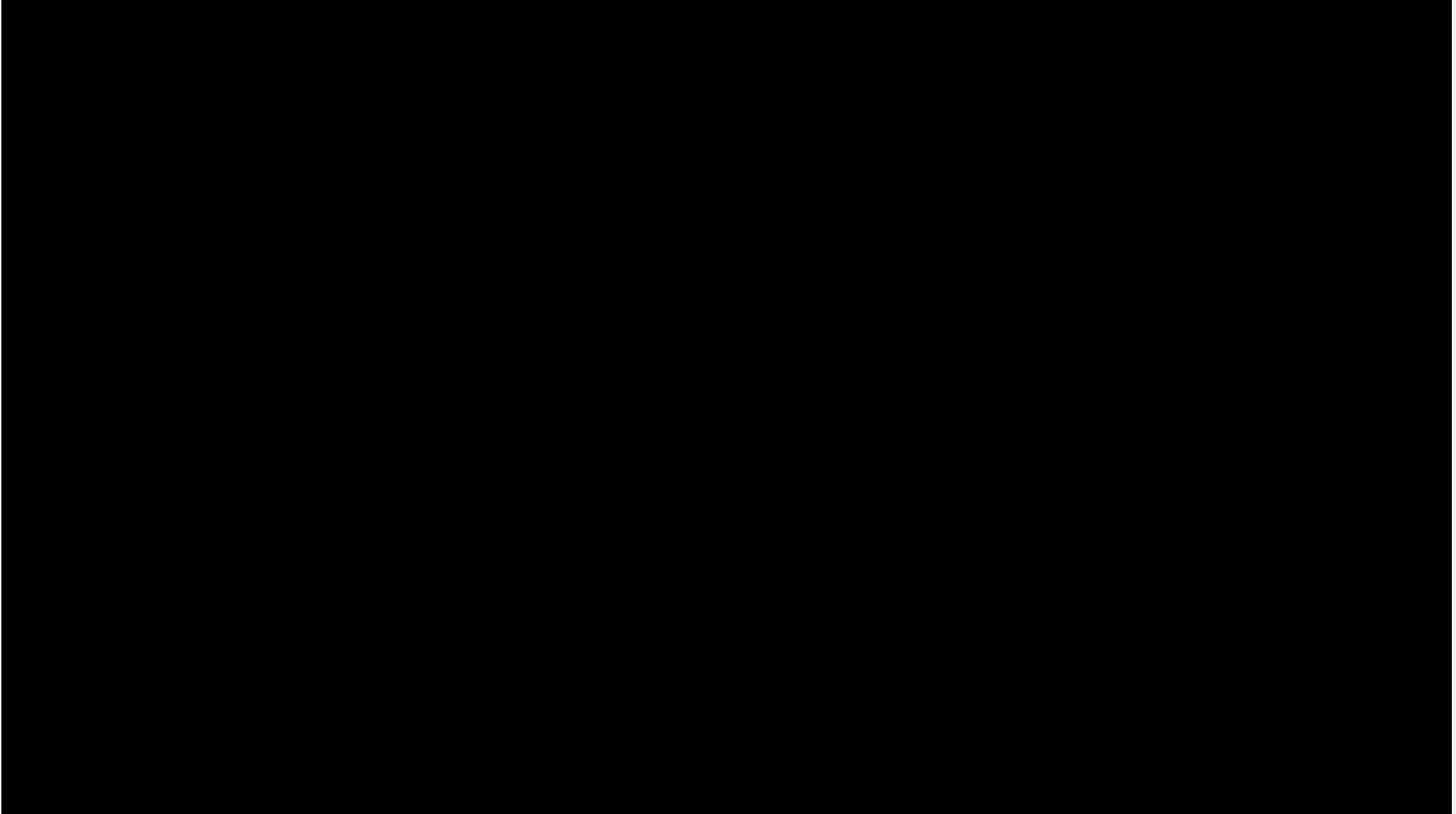
	GRADE
Type 1 Diabetes	F
Type 2 Diabetes	A
Short stature	C
Heart attack	A
Malignant Melanoma	A
Intellectual disability	
Hypertension	

Biotechnology / DNA Testing

## The world's first Gattaca baby tests are finally here

# The use of artificial intelligence to address food waste

origin



## **The Future of Work**

### **Dynamic play of 3 factors**

#### **Technological Changes**

Impact from AI, robotics and big data analytics will transform entire industries and disrupt the labour market

#### **Learning Evolution**

Affects workforce readiness and skills gaps; the speed of curricula updating and retraining opportunities will make a difference

#### **Talent Mobility**

Physical movement of workers between and within territories will be affected by economic opportunity, crises and politics

## WORKFORCE AUTARKIES

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## SKILLED FLOWS

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## EMPOWERED ENTREPRENEURS

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## MASS MOVEMENT

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## AGILE ADAPTERS

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## ROBOT REPLACEMENT

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## POLARIZED WORLD

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## PRODUCTIVE LOCALS

Technological change	Steady	Accelerated
Learning evolution	Slow	Fast
Talent mobility	Low	High

## Example: PRODUCTIVE LOCALS

**Accelerated tech changes** = machines performing routine, non-routine, manual, non-cognitive tasks

**Fast learning evolution** = concerns about disruption led to education reforms, local skills gaps led to company investment in training and reskilling; new ethos for lifelong learning led to increased dynamism in the workforce

**Low talent mobility** = Economies that invested heavily in high-skilled talent are reluctant to lose it and try to resist high migration rates; high engagement on global online platforms mean low mobility does not prevent economies from thriving



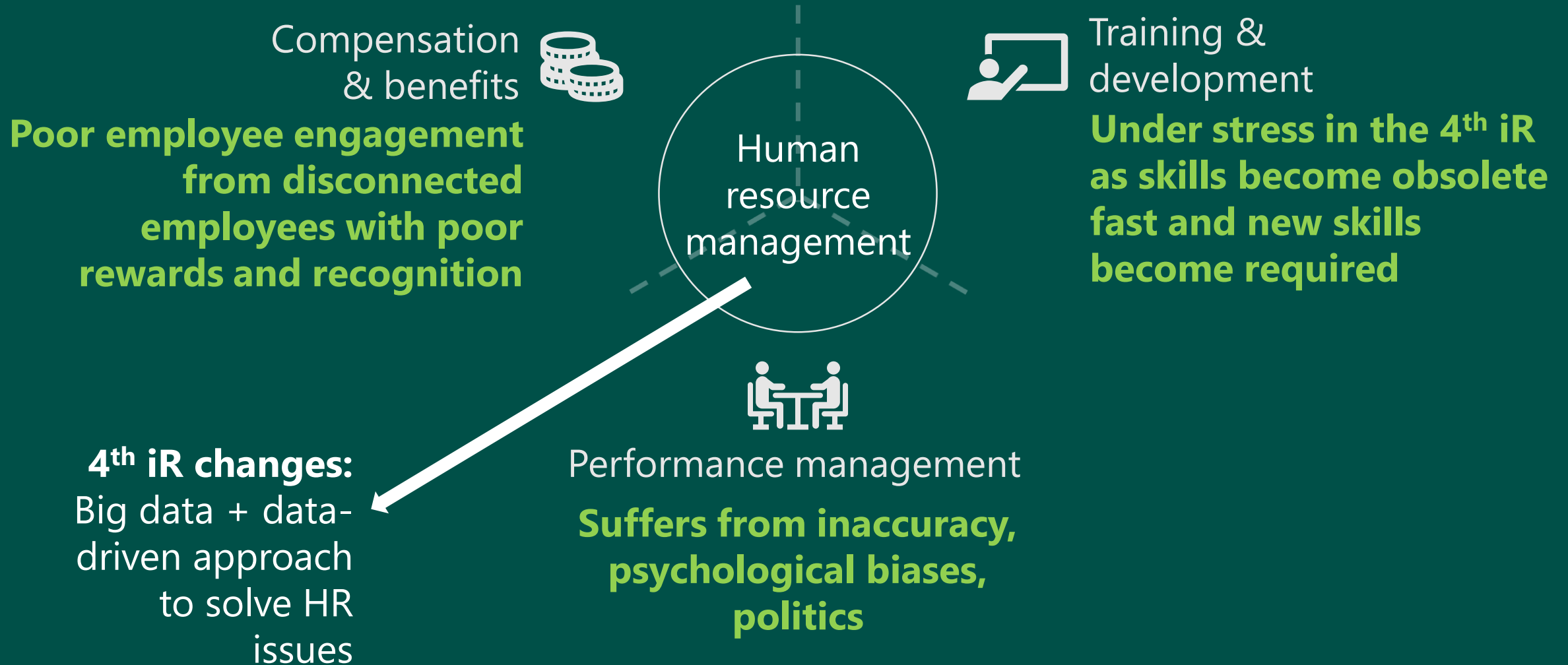
origin

PART 3, Section 5:

# **Application of disruptive technologies and workforce development**

# origin

Example: New technologies +  
data analytics disrupting HR



# origin



## Insights

Analysed information to aid evidence-based decision-making

## Information

Prepared data that has been processed

In the context of HR:

Information is displayed via dashboards & reports

Dashboard can show overall churn by showing number of new hires and resignations

## Data

Raw unprocessed facts

Currency of the future

Professionals must gather, clean, understand it

In the context of HR:

Performance management figures

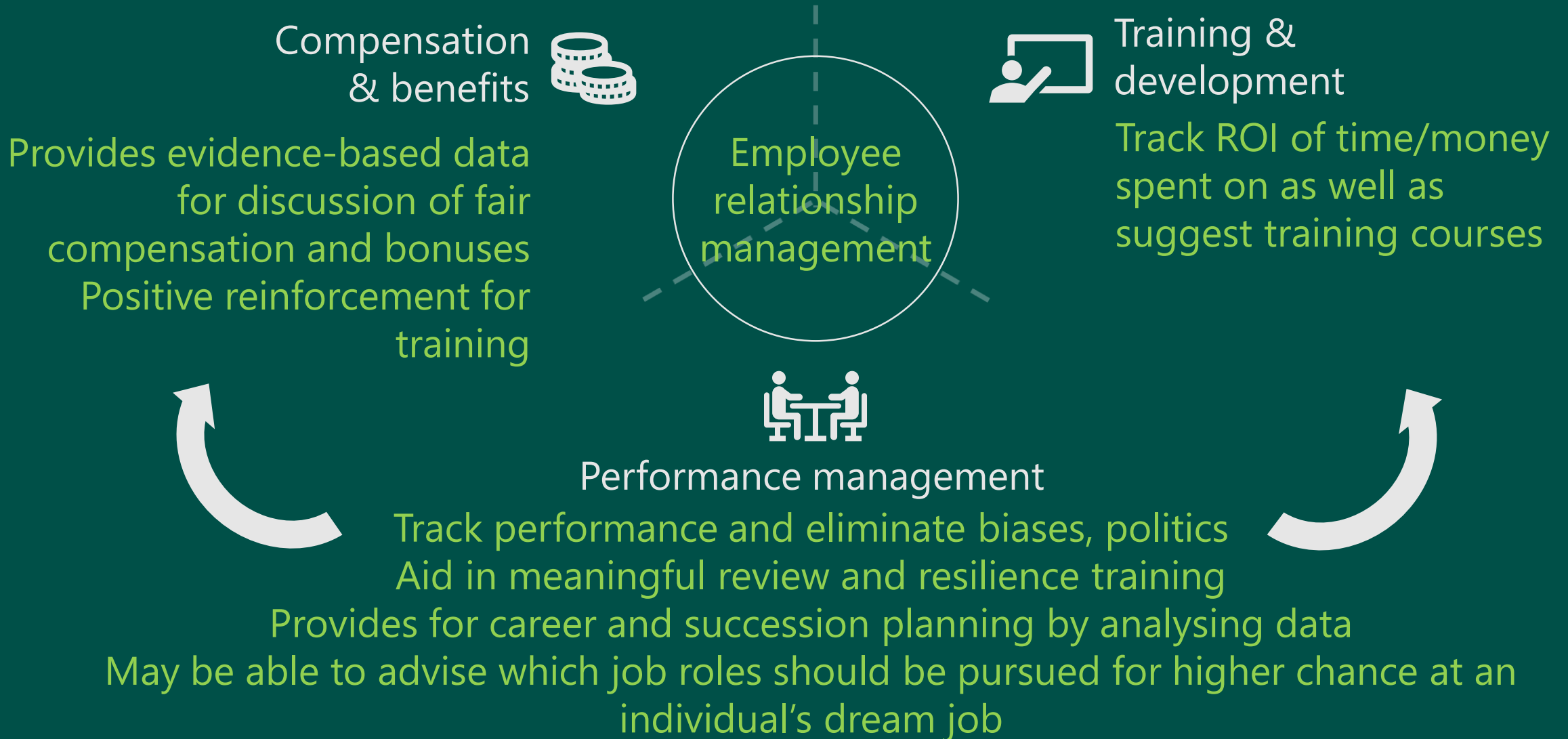
Skills & competency ratings

Number of new hires

Number of employee resignations

# origin

How HR professionals can use data and HRM SaaS to contribute to strategic HRM





A background image of a busy Japanese city street, likely Shibuya, with many billboards and pedestrians. The billboards include advertisements for UC, Visa, T.A.M.T.N. 10th Anniversary, WANIMA, and DHC. The street is crowded with people, and the overall atmosphere is one of a bustling urban environment.

## HR concerns in the 4<sup>th</sup> iR and why lifelong learning matters: a recap on key points

Velocity of change, scope & extent of impact is unprecedented

Lifelong learning will be important in today's age of disruption and shortened life cycles of skills competencies

HR needs to step up and make sense of data so that strategic insights can be had at the company, industry and economic level

# origin

## Some key trends and challenges HR is facing (Deloitte 2019 insights)

### Future of the workforce: the alternative workforce

1. Contract, freelance, gig employment are now mainstream
2. Skills gaps and lower birth dates mean this alternative workforce is important

### Accessing talent

1. Record-low unemployment rates, high rates of employee-initiated turnover and skills shortages = difficult recruitment

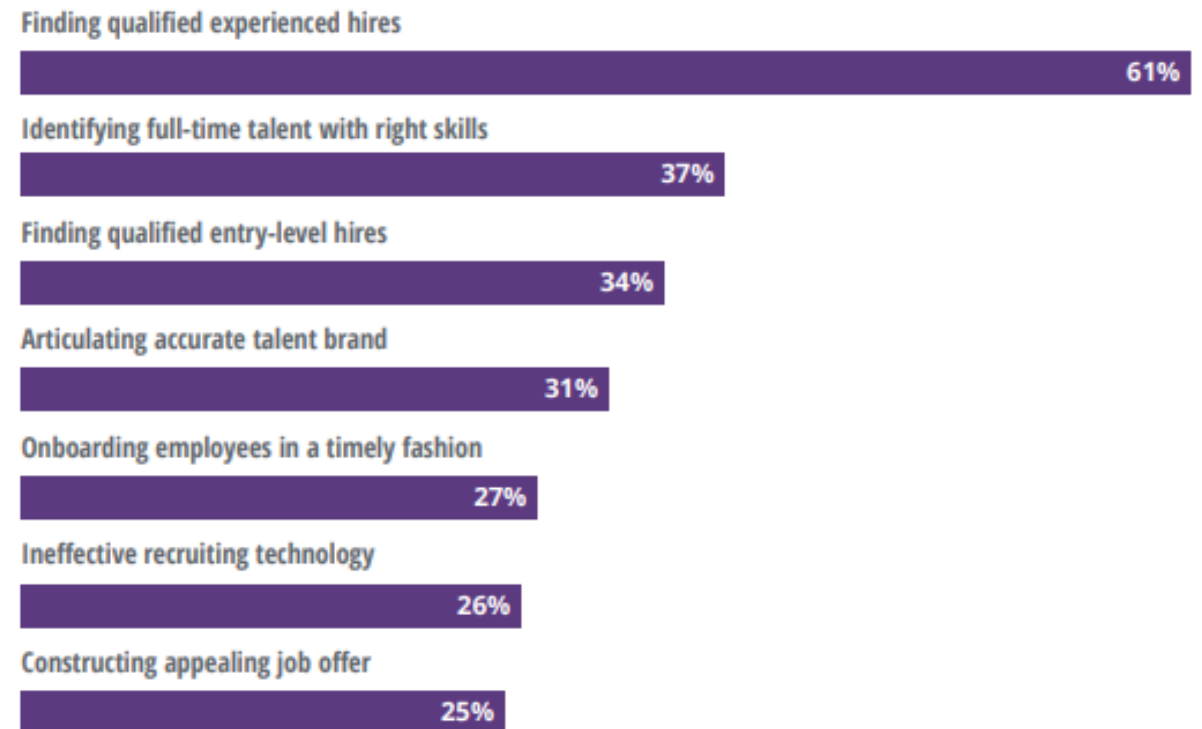
### Putting meaning back into work

1. HR must recognise experience at work is more than just perks, rewards, or support
2. They should move towards job fit, design and meaning

FIGURE 1

#### Finding qualified talent is among recruitment's biggest challenges

What are the biggest challenges with the talent acquisition process? Select all that apply.



Source: Deloitte Global Human Capital Trends survey, 2019.



# How does lifelong learning fit in?

## PLUGGING SKILLS GAPS

Disruptions occur faster and more frequently in the 4<sup>th</sup> iR = life cycles of skills competencies shorten

More deep technical skill sets may need to be picked up over the course of a life time

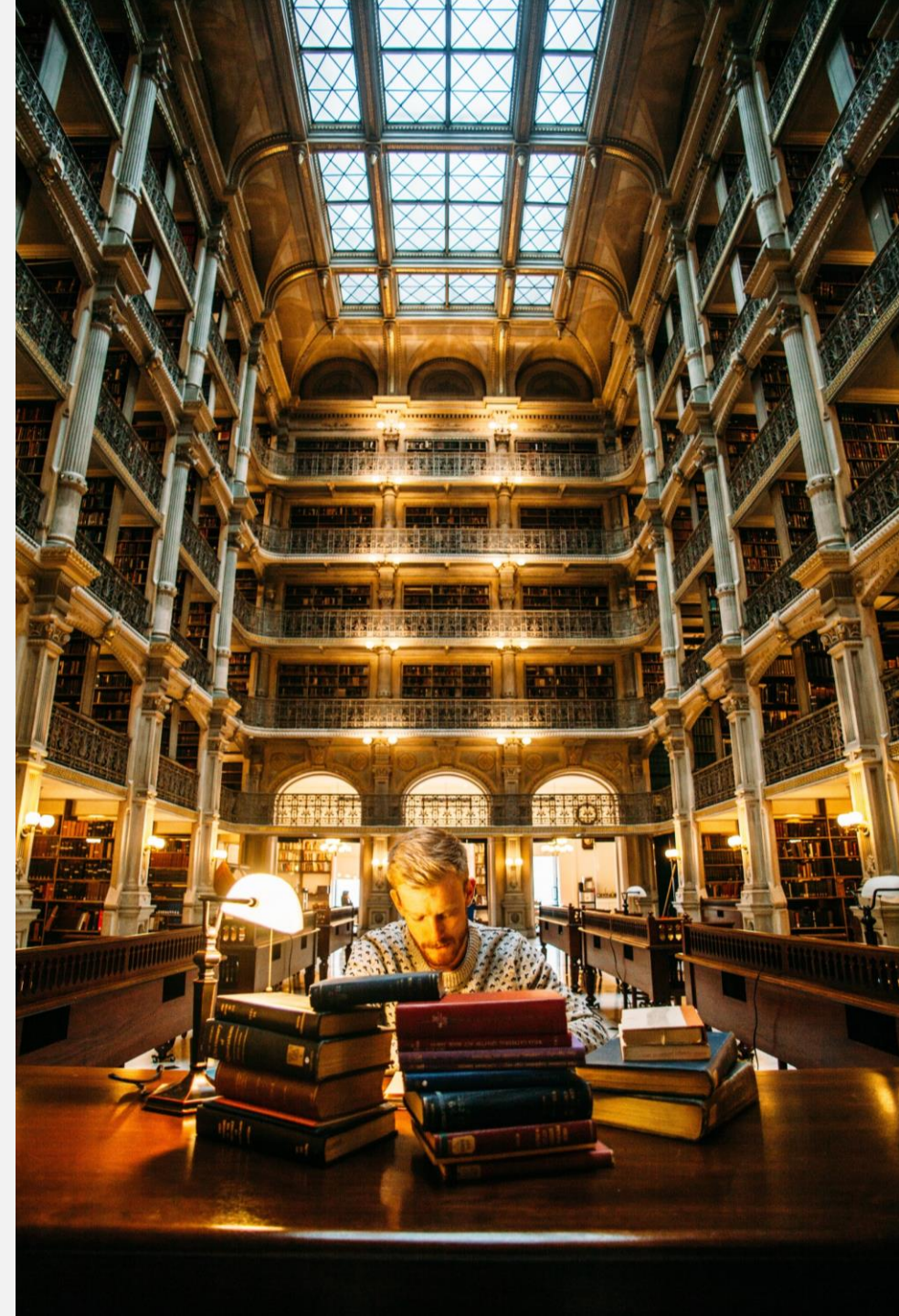
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## CHANGING JOB DESCRIPTIONS AND FUNCTIONS

Changing expectations to the future of work as well as job fit, design and meaning means the individual will have to take a greater role in self-directed lifelong learning





# origin

**Case Study:** How the SkillsFuture Framework and an ERM solution would support companies and governments to identify skills gaps



## Skills Framework for Human Resource

A Guide to Occupations and Skills

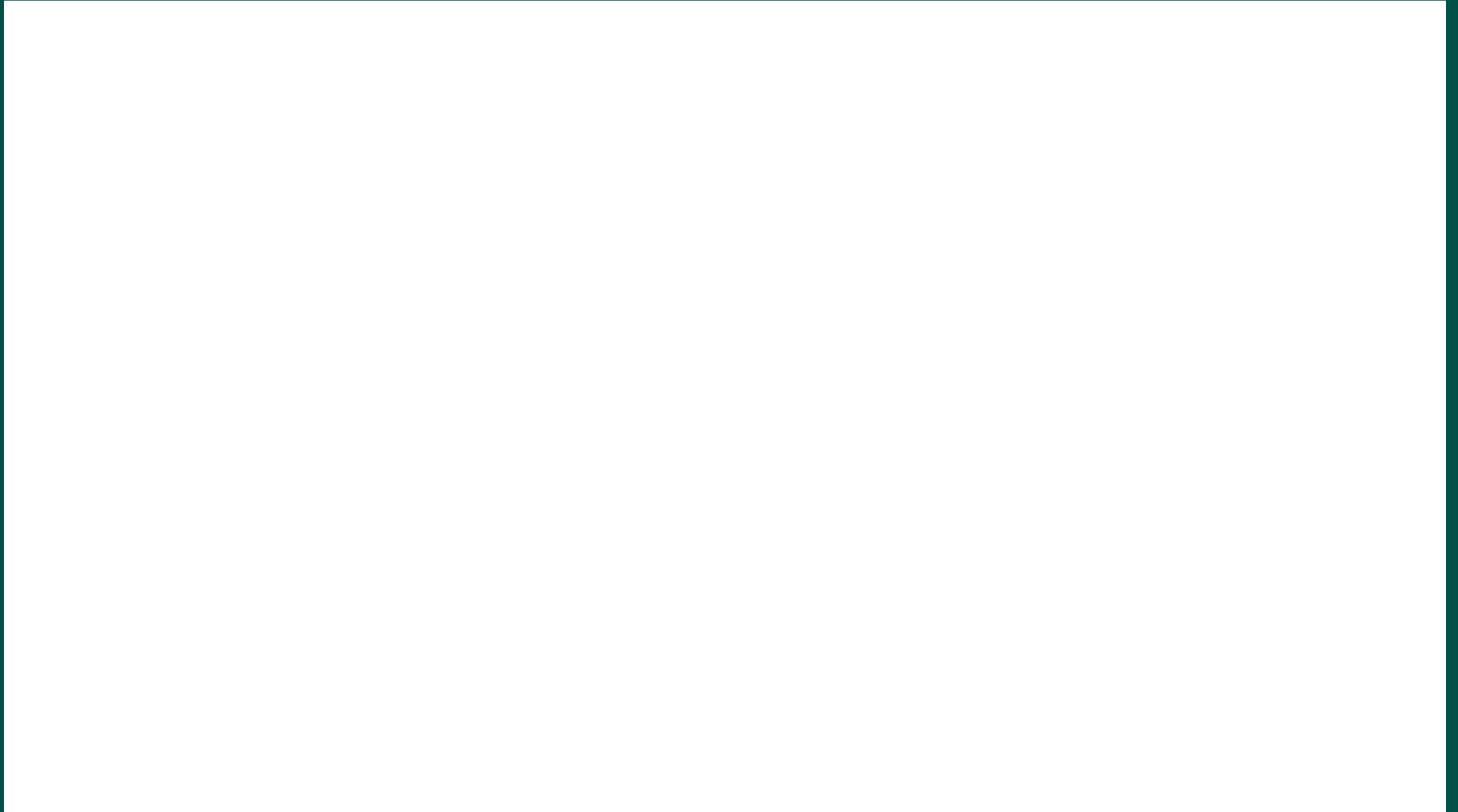
An initiative of

**SKILLS**future



**Upgrade your workforce with the Skills Framework**

**origin**



Technical Skills & Competencies		Generic Skills & Competencies	
Business Acumen	Level 6	Leadership	Advanced
Career Framework Design	Level 5	Decision Making	Advanced
Conduct and Behaviour Management	Level 5	Communication	Advanced
Contingent Workforce Management	Level 6	Global Mindset	Advanced
Diversity and Inclusion Management	Level 5	Interpersonal Skills	Advanced
Employee Communication Management	Level 4	<div>Skills &amp; competencies of a Chief Human Resource Officer in the SF</div>	
Employee Engagement Management	Level 6		
Employer Branding	Level 6		
Executive Remuneration Management	Level 6		
Financial Acumen	Level 5		
Human Resource Advisory	Level 6		
Human Resource Analytics and Insights	Level 5		
Human Resource Digitalisation	Level 6		
Human Resource Policies and Legislation Framework Management	Level 5		
Human Resource Practices Implementation	Level 5		
Human Resource Service Quality Management	Level 6		
Human Resource Strategy Formulation	Level 6		
Industry Networking	Level 6		
Labour Relations Management	Level 5		
Leadership Development	Level 6		

# origin

## ERM + SF at the company level



ERM solution will incorporate these skills & competencies into a **PM dashboard**



**Detailed data = insights** on where certain skills and competencies fall short

AI / T&D dept  
recommends training interventions



### Insights and benefits

Plan career advancements & personal development

Insights on emerging skills and competencies for any industry/role results in proactive management of skills gaps

Better performance  
Knowledge of ROI on training  
Can advise CEO on strategic levels

Staff members see tangible improvements, get rewarded appropriately, and get positively reinforced to seek self-development and practice lifelong learning



positive employee engagement = better retention

# origin



ERM solution will  
scrap data on  
comparable global job  
descriptions



## Insights and benefits

Governments can use the data to build national job portals for the workforce to find jobs to operationalise workforce development

Companies and governments can benchmark against global positions to plan more strategically to address skills gaps

Governments can forecast in which industries they wish to pursue economic development and how much of a skills gap there will be

## ERM + SF at the macro-level



# origin

## How to promote self-directed learning and take ownership for lifelong learning?

### State fostered conducive environment

1. Singapore's SkillsFuture efforts
2. Coordination efforts with training providers and IHLs to produce curriculum
3. Leverage on learning technology

### Individual-centric efforts

1. Peer learning
2. Seek out coaching/mentoring
3. Positive reinforcement
4. Training recommendations



# origin

## Part 4:

Promotion of lifelong  
learning and setting up of  
learning neighbourhoods





# origin

## Scope of Part 4

1. Lifelong Learning Council – 4 thrusts
2. Setting up learning neighbourhood – SWCDC as an example
3. Other examples of lifelong learning in the world – the Global Network of Learning Cities



origin

PART 2, Section 1:

**Singapore's CET landscape  
prior to SkillsFuture**



# origin

## What does **SkillsFuture** cover?

1. Help individuals to make well-informed choices in education, training and careers
2. Develop an integrated, high-quality system of education and training that responds to constantly evolving industry needs
3. Promote employer recognition and career development based on skills and mastery
4. Foster a culture that supports and celebrates lifelong learning



**The Lifelong Learning Council  
was set up in end 2014 to  
support the lifelong learning  
movement**



**LIFELONG LEARNING COUNCIL**

# origin

## The Lifelong Learning Council

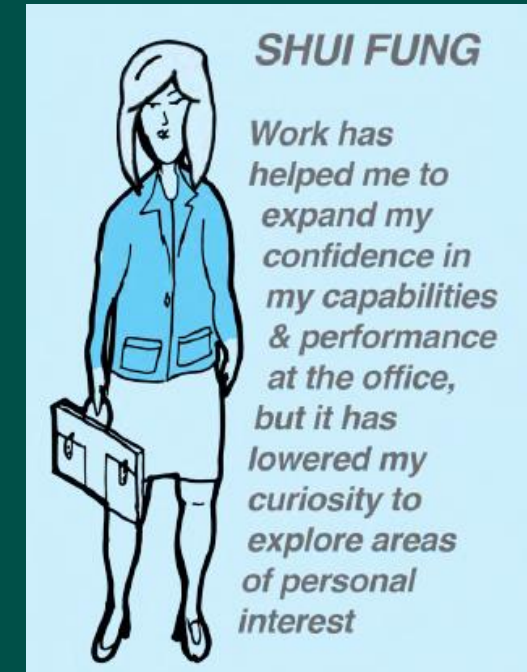
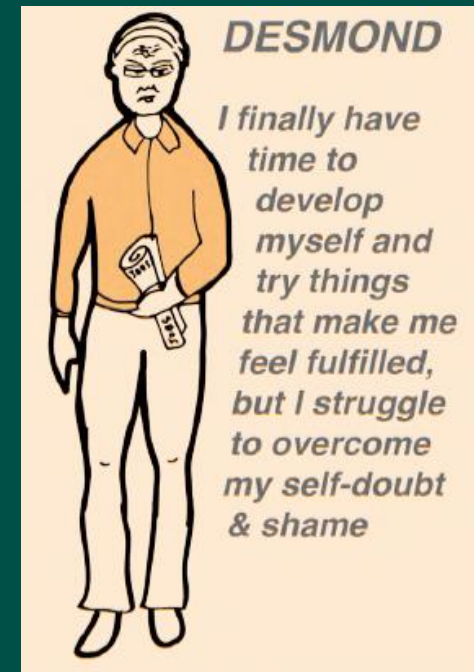
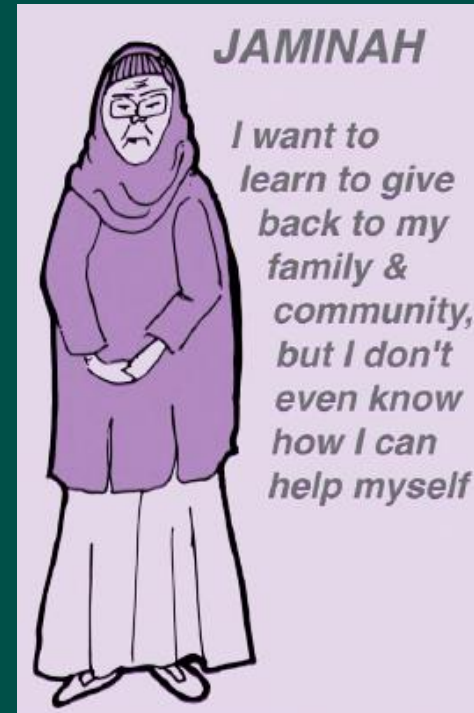
The 1<sup>st</sup> Council member was appointed in Oct 2014

The Council was formed by WDA to help spread the message of lifelong learning amongst Singaporeans

The council comprises of **7** private, **4** people and **3** public sector leaders to facilitate partnerships amongst stakeholders to promote learning

Starting from top left and going clockwise, the illustrations are of a few archetypes of beneficiaries:

A senior, parents with young children, a mid-career professional/manager/executive, and someone between jobs



**Promote Lifelong Learning Mindset**  
raised awareness & desire

# Key Thrusts & Initiatives

origin

Signature event: Lifelong Learning Festival

Pledge-to-Learn

Lifelong Learning Communications Campaign

SkillsFuture Outreach

**Foster a Supportive Environment**  
encouraged & celebrated  
"Tinkerama"

Learning-thru-Play (LTP) Toolkit

"Learning@Work Bootcamp"



**Provide Accessible Learning Opportunities**  
low barriers of entry

"Learning-on-the-go" Gateway

Community Learning Nodes

Mid-Career Enhanced Subsidy, SkillsFuture Credit, MySkillsFuture (ILP) & other SkillsFuture initiatives

**Nurture Community Involvement**  
ground-up & part of social fabric  
"LearnSG Seed Fund"

Synergise & multiply community advocacy/outreach/programs

Long-term "DNA collaboration" – Science Centre, NLB, C3A, SIT...



# Lifelong Learning Festivals



- Raise awareness and inspire lifelong learning
- Galvanise community partnerships
- Kick-start lifelong learning festival and specific lifelong learning initiatives

## LLF 2015



Wide range of participants & partners  
**> 6,000 footfalls**

## LLF 2016



Island-wide community LLFs  
**> 10,000 footfalls**

## LLF 2017 & beyond



High impact national LLF

## origin

### Engaging and Experiential

Pledge-to-Learn, Learning-on-the-Go Gateway & Tinkerama

Movie with facilitators

Interactive exhibits

### Informative

Workshops & skills demonstrations

Informative booths from PSEIs, employers, community & TPs





**SkillsFuture Festival 2019**

**origin**



# origin

## Learning-on-the-Go Gateway / Pledge to Learn

Enable learning on the go: Anyone, Anywhere, Anytime

Build communities of learners

**Target learner groups:** community at large

**Strategic partners:** communities

### KEY THRUSTS/INITIATIVES OF LLC

**Promote Lifelong Learning Mindset**

raised awareness & desire

**Provide Accessible Learning Opportunities**

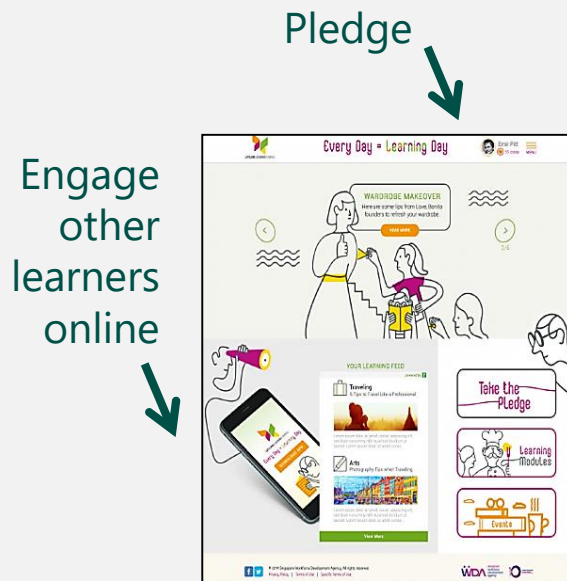
low barriers of entry

**Foster a Supportive Environment**

encouraged & celebrated

**Nurture Community Involvement**

ground-up & part of social fabric



Participate in offline learning activities



# origin

## Community Learning Nodes

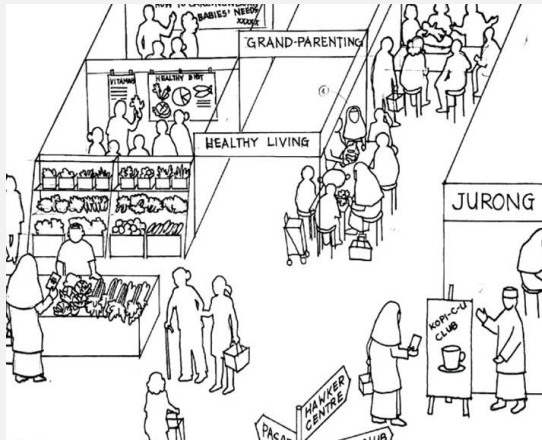
Bring learning to the community

Dedicated zones in neighbourhood areas

Lower barrier of entry by engaging in daily familiar setting

Short talks/courses, hands-on learning

**Target learner groups:** community at large



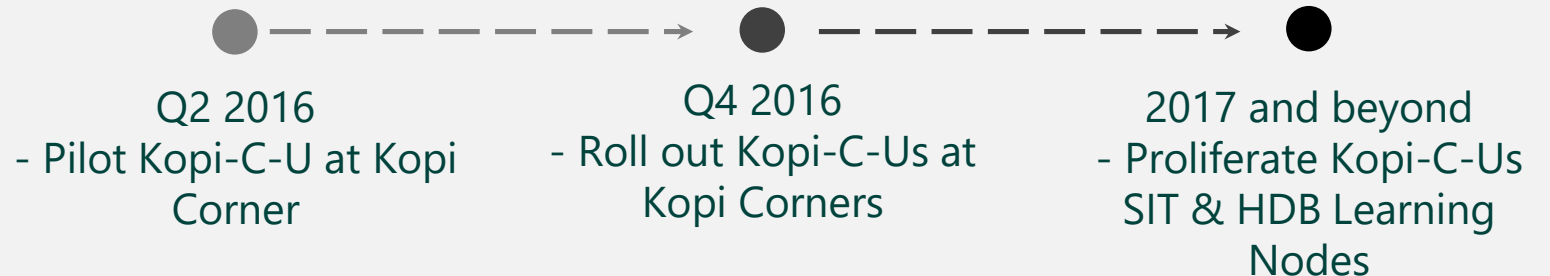
## KEY THRUSTS/INITIATIVES OF LLC

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low barriers of entry

**Foster a Supportive Environment**  
encouraged & celebrated

**Nurture Community Involvement**  
ground-up & part of social fabric





# origin

## Enhance Workplace Learning in SMEs

Projects to examine and improve workplace learning practices in enterprises

**Target learner groups:** SMEs, Learning and Development professionals

**Strategic partners:** Institute of Adult Learning & SPRING

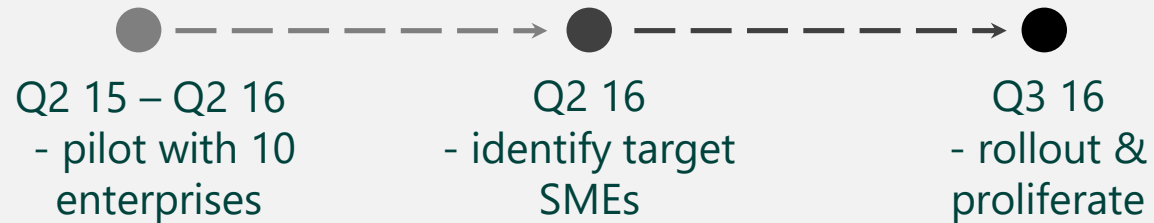
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encouraged & celebrated

**Nurture Community Involvement**  
ground-up & part of social fabric



# origin

## Grow ground-up community learning initiatives

Grow ground-up community learning initiatives

Two-tracked structure: (\$3,000,000 budget)

1. Small scale projects to encourage ground-up learning, capped at \$5,000, minimal tracking
2. Large scale projects that may be scaled up to community/national level, capped at \$50,000, specific deliverables

**Target learner groups:** grounds of individuals, organisations and schools



## KEY THRUSTS/INITIATIVES OF LLC

**Promote Lifelong Learning Mindset**

raised awareness & desire

**Provide Accessible Learning Opportunities**

low barriers of entry

**Foster a Supportive Environment**

encouraged & celebrated

**Nurture Community Involvement**

ground-up & part of social fabric

# Mental health, parenting, financial talks by experts for one-north community

origin



A\*STAR  
INFUSE Open House (12 Nov – 25 Nov)



1,500 participants in 10 workshops over 10 days

origin



A\*STAR  
INFUSE Open House (12 Nov – 25 Nov)



# Inspiring 13,000 employees across 11 subsidiaries to adopt learning mindset

origin



SATS

Make Your Every Day, A Learning Day (Nov 2016 – Apr 2017)

sats

3-Phase campaign in 6-month duration:  
learning pouch, collaterals, video

origin



SATS

Make Your Every Day, A Learning Day (Nov 2016 – Apr 2017)

sats



Learn through making - cultivating a child's curiosity, creativity, and problem-solving skills

origin



Come and Make (Jun – Dec 2016, every fortnight)  
At Pavilion Under Blk 622 Bukit Batok Central

# Self-directed learning through making

origin



Come and Make (Jun – Dec 2016, every fortnight)  
At Pavilion Under Blk 622 Bukit Batok Central



# Family bonding and fun

origin



Come and Make (Jun – Dec 2016, every fortnight)

# Real-world learning through electronics

origin



Hong Kah Secondary School  
E-gnite! Learning Festival (24 – 26 May 2016)



**HONG KAH**  
SECONDARY SCHOOL



# Multiplier Effect in seeding the passion for electronics among our primary school students

origin



Hong Kah Secondary School  
E-gnite! Learning Festival (24 – 26 May 2016)



**HONG KAH**  
SECONDARY SCHOOL

origin

PART 2, Section 2:

**Setting up learning  
neighbourhood – SWCDC as  
an example**



# Advocating Lifelong Learning in SWCDC - Articles

origin

 **5 minutes with ...**

**LIFELONG LEARNING:  
FOR SELF AND NATION**

Adviser to Boon Lay GROs **Mr Patrick Tay, BBM**, believes that lifelong learning holds the key to achieving individual aspirations, as well as Singapore's vision for the future.



a word from **yen ling** 

**Lifelong Learning  
Is For Everyone**

*Yen*

**Low Yen Ling**  
Mayor of  
South West District

**Dear friends,**

"Learn as if you were to live forever," once said the famous Mahatma Gandhi. Indeed learning is for life, and we are helping our residents gear up with the SkillsFuture Festival @ South West.

Held on 22 July, the event drew residents from different parts of the

 **SPOTLIGHT**  
**youth for the environment**



Participants, panel experts and organisers of Love Your Living Environment Youth Challenge.

 **RISING TO THE  
CHALLENGE**

Youth who care came together to brainstorm ideas on how to tackle environmental issues.



# Advocating Lifelong Learning in SWCDC - Articles

origin



**SPOTLIGHT**  
SkillsFuture Festival  
@ South West

## SKILLS THAT LAST A LIFETIME

The SkillsFuture Festival @ South West 2018 underscored the relevance of vocational skills such as plumbing and baking.

Residents learning simple home plumbing repairs from an ITE College West volunteer.



**"WE HOPE TO SPARK NEW CURIOSITY IN OUR RESIDENTS TO PURSUE LEARNING AT WHATEVER STAGE OF LIFE THEY ARE AT. This positive attitude will arm them with the vigour to pick up new ideas and know-how that will not only enrich their lives but also give them resilience for the future."**

**Ms Low Yen Ling**  
Mayor of South West District

Mayor Low and Mr Zaqq getting tips on how to care for an infant.

## STILL LEARNING, 20 YEARS ON

"Given my years of experience as a chef, I thought I knew everything about cooking. I had a lot of doubt when I heard about the 'regeneration technique' (a process to preserve cooked food, which can then be reheated for serving without compromising on the food quality) about 20 years ago. Today, this technique is widely used at established restaurants and hotels. In my own restaurant, regeneration technique is used for almost all the food we serve.

It is difficult to change our mindset sometimes. But we need to adapt to the changes that are happening in our lives. We must keep learning and constantly upgrade our skills to keep up. SkillsFuture provides a great platform to do just that."

**Chef Heman Tan,**  
Executive Chef of Iron Supper Club



20 BRIDGE



# Advocating Lifelong Learning in SWCDC - Articles

origin



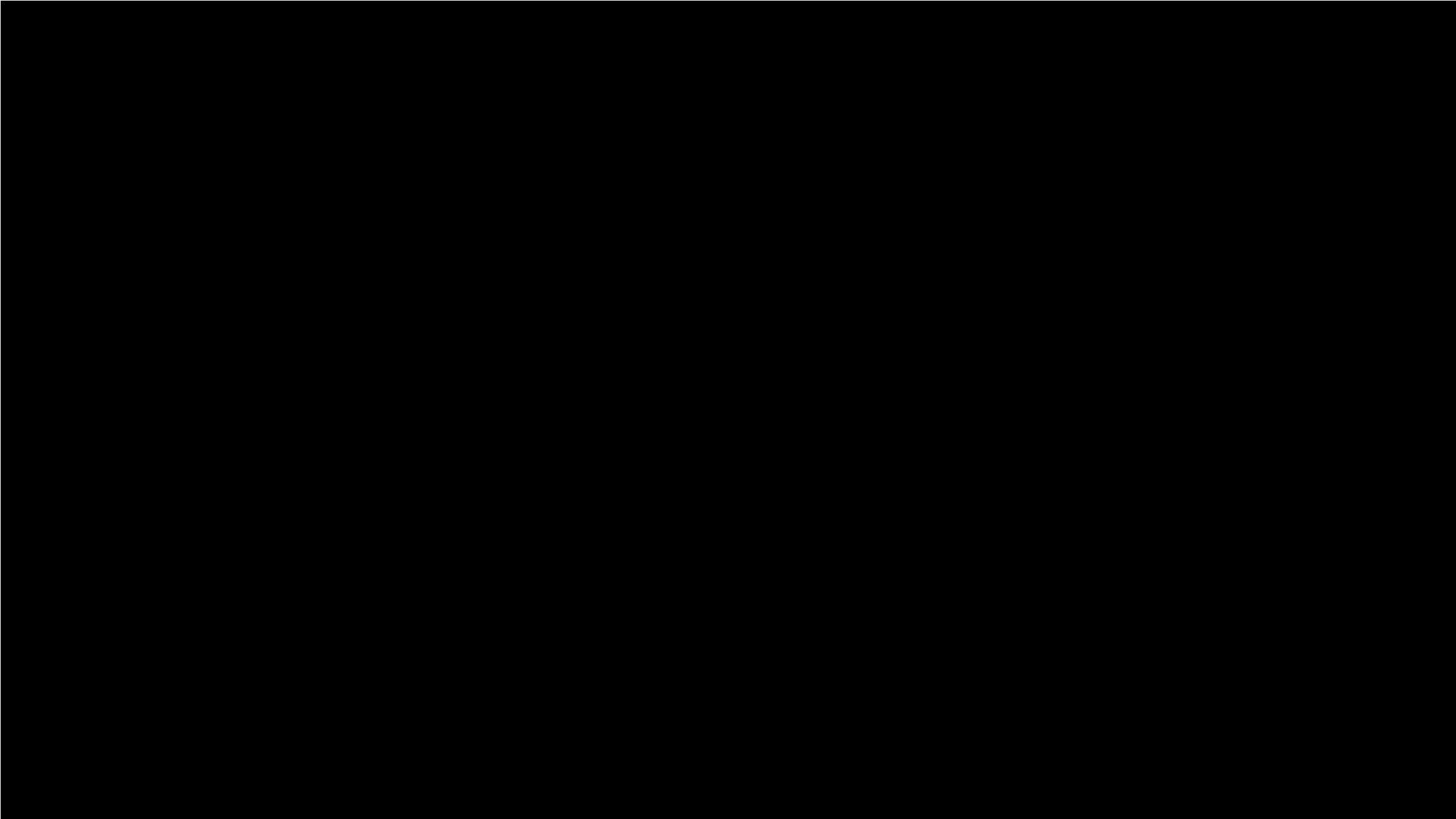
## PART 2, Section 3: <sup>origin</sup>

**Other examples of lifelong  
learning in the world – the  
Global Network of Learning  
Cities**



# UNESCO Global Network of Learning Cities

origin



## Map representation of the winners of the 2019 GNLC Learning City Award





## Sønderborg, Denmark

Promoted sustainability far beyond its formal education system, and created a coordinated structure for stakeholder involvement that will ensure continued progress as a learning city.

Achieved outstanding results in reduction of CO<sup>2</sup>.

### **Pursued more efforts to:**

Become a sustainable city

Expand learning in informal spaces

Intensify the use of modern technologies in the learning process



**City population**  
74,737



**GDP per capita**  
USD\$ 56, 394



**Land area**  
495 km<sup>2</sup>





## Seodaemun-gu, Republic of Korea

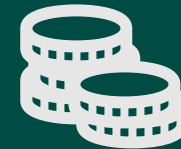
Took advantage of its many high-rise apartments by creating small learning communities

These communities teach 50 courses each year in citizens' living rooms

Around 30,000 people are illiterate, and integration plans are necessary to avoid social isolation and urban poverty



**City population**  
316,217



**GDP per capita**  
USD\$ 27, 538



**Land area**  
17.6 km<sup>2</sup>



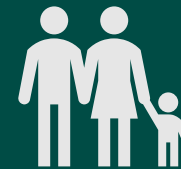
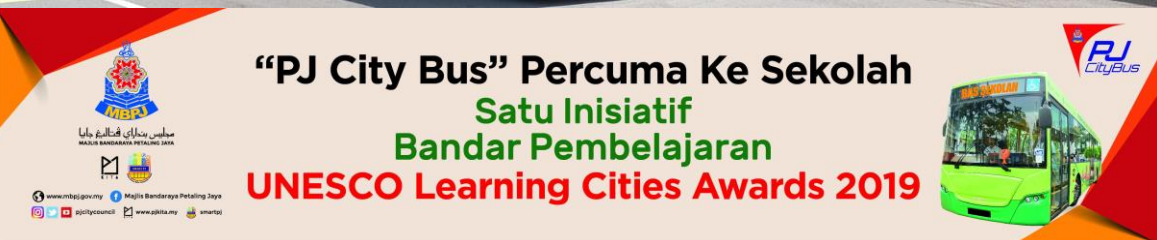


# Petaling Jaya, Malaysia

Improved access to public learning spaces

Provided free bus services across four city routes, which also double as information disseminators through their on-board screens.

The city is also making good use of the resources provided by the partners.



**City population**  
211,700



**GDP per capita**  
USD\$ 9,944.90



**Land area**  
97.2 km<sup>2</sup>



## VISION OF SUSTAINABLE PJ 2030



## STRATEGIC MASTER PLAN "SUSTAINABLE PJ 2030"



PETALING JAYA  
POPULATION : 713, 411 PEOPLE

Petaling Jaya, a city aims to be an international destination for livability through a rich blend of history, best features of built and natural environment, opportunities and activities

## SAFE CITY MASTER PLAN



### SAFE ENVIRONMENT

1. Develop a safe environment through disaster preparedness and response
2. Safe recreation activities
3. Safe road network
4. Safe public places
5. Safe public places
6. Safe public places
7. Safe public places
8. Safe public places

### SAFE INFRASTRUCTURE

1. Safe infrastructure
2. Safe infrastructure
3. Safe infrastructure
4. Safe infrastructure
5. Safe infrastructure
6. Safe infrastructure
7. Safe infrastructure
8. Safe infrastructure

### DIGITAL SAFETY

1. Digital safety
2. Digital safety
3. Digital safety
4. Digital safety
5. Digital safety
6. Digital safety
7. Digital safety
8. Digital safety

### SAFETY ENFORCEMENT & MANAGEMENT

1. Safety enforcement & management
2. Safety enforcement & management
3. Safety enforcement & management
4. Safety enforcement & management
5. Safety enforcement & management
6. Safety enforcement & management
7. Safety enforcement & management
8. Safety enforcement & management

## OCCUPATIONAL, SAFETY & HEALTH (OSH)

MBPJ implementing occupational safety and health in all projects and office environment



## PJKITA

PJKITA is a community initiative to engage with citizens through multiple channels (by a digital platform, programs, projects, initiatives) and to learn about their ideas and aspirations to achieve a sustainable, creative smart and community-driven city.

5 main pillars of PJKITA :



Volunteerism



Smart Partnership



Community Engagement



Culture & Lifestyle



Digital Fabrication

origin

Petaling Jaya municipality developed collaterals in support of their GNLC award application



## PJ SUSTAINABLE COMMUNITY AWARD

A programme to recognize and provide development grant to the outstanding community initiatives and achievements in improving the quality of environment and sustainability of the community towards achieving the vision of Sustainable PJ 2030



origin

## LOW CARBON CITY FRAMEWORK



1. Gallery
2. SR area
3. Mesorobic digester
4. Sorting area
5. Recycling area
6. Waste chamber
7. Dry compost
8. Storage
9. Hydroponic Farming
10. Organic Farming
11. Green house
12. Green kiosk
13. Garden

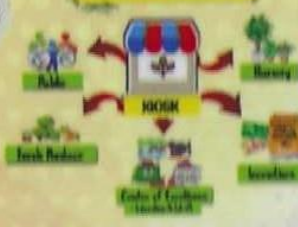


## THE CIRCULAR ECONOMY OF CLOSED-LOOP CONCEPT WASTE-TO-FOOD : A LIVING LAB



1<sup>st</sup> IN MALAYSIA

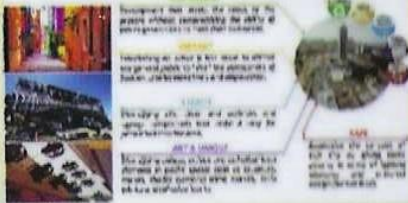
## GREEN KIOSK as the LIVING LAB



## PJ ART CITY



## PJ ART CITY: LIVABLE CITY @ SECTION 52



## PJ UNIVERSAL DESIGN







\* .... A Total Solutions For Intelligent City Planning & Management \*



## SMART PETALING JAYA

### PJ SMART CENTRE



Development of Urban Planning and Management systems based on Attributes and Spatial Data.

Urban Data in the form of dashboards for MBRJ's key functions will be integrated into M attributes and spatial data in the Data Control Centre known as PJ Smart Centre.

### MINI SMART CENTRE



The Urban Data contained in the dashboard will be placed in the internal departments of the Council known as Mini Smart Centre.

All input/observations of data from various aspects and analysis operate in the Mini Smart Centre and displayed in the form of geo spatial at PJ Smart Centre.

## REDEVELOPMENT

Special Area Plan consists of 259.20 acres of the entire industrial area of Section 13, Petaling Jaya



### DEVELOPMENT CONCEPT LIVE > WORK > LEARN > PLAY

RE-ZONING OF RESIDENTIAL AREA FOR LIMITED BUSINESSES



### SPECIAL AREA PLAN OF KWASA DAMANSARA



## PJKITA COMMUNITY CENTRE



origin

Petaling Jaya municipality developed collaterals in support of their GNLC award application



## I-PLAY PARK



i-Grow



i-Thing



i-Fun



i-Green



i-Renger



origin

## MASTER PLAN OF TRANSPORTATION



## SISTER CITY PROGRAMME

The Council has established 'Sister City' relationship with 5 cities



Saitama City,  
Japan in 2012



Bandung City,  
Indonesia in 2015



Asan City,  
South Korea in 2015



Qing Yuan City,  
China in 2016



Seongbuk-Gu,  
South Korea in 2017



Miyoshi City,  
Japan in 2017

## PJ INTERNATIONAL FAIR



To grow the city's 'brand' and serve as an annual attraction, not only for locals but also at national and international level.



Develop Petaling Jaya as an arts city, raising the profile and economic development of the local creative industry.

# How to build a learning city

origin



You may email Dr Koh at [tatsuan@ori9in.co](mailto:tatsuan@ori9in.co)  
if you have any questions.



Thank you.