



**General Council**

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**UNOFFICIAL ROOM DOCUMENT<sup>1</sup>**

**WORK PROGRAMME ON ELECTRONIC COMMERCE**

NAVIGATING DIGITAL INDUSTRIALIZATION:  
DIGITAL UPSKILLING AND TRANSFORMATION IN SINGAPORE

*COMMUNICATION FROM SINGAPORE*

**Conseil général**

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\* In Original language only/En langue originale seulement/En el idioma original solamente.

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# Navigating Digital Industrialization: Digital Upskilling and Transformation in Singapore

23 June 2023

**MTI** MINISTRY OF TRADE  
AND INDUSTRY  
SINGAPORE

**40** YEARS OF MTI  
MINISTRY OF TRADE AND INDUSTRY  
1979 - 2019



## Why Digital Upskilling?

- Jobseekers are more **employable in the long-term** for the evolving landscape of job roles
- Workers can better navigate and adapt to **new digital platforms, tools and software** as companies go through digital transformation
- **Increased productivity and efficiency** for businesses and industries through streamlining, automating and optimising processes, as well as leverage tools such as data analytics, communication tools and other digital resources
- **New frontiers for businesses** to leverage on technologies such as AI, VR and data analytics to develop new products, services and businesses

## Digital Upskilling in Singapore: SkillsFuture

- A comprehensive national movement for lifelong learning
- **SkillsFuture Credit Scheme** – Singaporeans aged 25 and above are provided with an initial credit amount, incentivising individuals to take up learning opportunities and invest in skills development
- Focus on **industry-relevant skills** by collaborating with industry partners and educational institutions to identify and offer courses that align with industry needs
- **Career guidance and resources** on job trends, skills in demand and career development opportunities





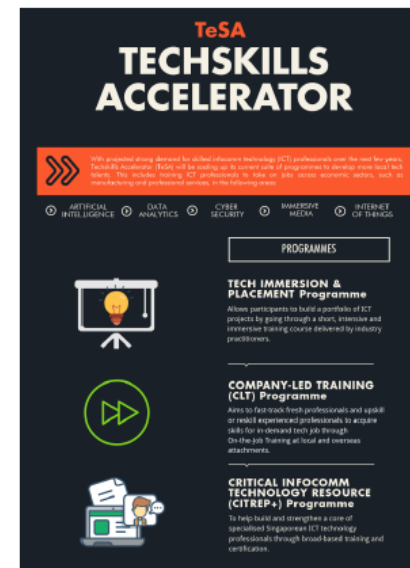
## SkillsFuture for Digital Workplace

- A two-day training programme to equip Singaporeans with basic digital skills for the workplace and daily life
- Aiming to build digital confidence and adopt a positive mind-set towards change, innovation and resilience
- Hands-on, interactive and practical programme focusing on common digital applications such as e-payments, cybersecurity and the interpretation and use of data
- Strong support from labour movement, employers and technology partners such as Microsoft, Samsung and Lazada



## TechSkills Accelerator

- A SkillsFuture initiative which aims to accelerate the development of tech skills, foster a skilled tech workforce and build a pipeline of strong tech professionals
- Collaborates with industry partners and training providers to offer training opportunities in emerging areas such as data analytics, cybersecurity, artificial intelligence, cloud computing, and software development.
- Supports individuals in transitioning to tech-related roles through training and job placement assistance
- Support for professional development such as mentoring programmes, industry networking and continuous professional development programmes



## Digital Upskilling in Singapore: SGUnited Jobs and Skills Package

- Launched in response to the economic impact of the COVID-19 pandemic
- Provide individuals with opportunities to upskill or reskill
- Support and help to find temporary employment or short-term positions (“traineeships”) to acquire skills through structured and on-the-job training
- Training and salary support for employers who hire and reskill jobseekers



### SGUnited Global Tech Training Programme

- Prepare participants for roles as software engineers and full-stack developers
- Three months of classroom training in programming languages such as Python, JavaScript and software development
- Three months overseas apprenticeship with global companies in sectors such as technology and e-commerce, with the possibility of being offered a job in the same firm

### Digital Transformation in the Built Environment

- Six-month digital transformation course to equip participants with smart facilities management skills in areas such as building services management and workplace health and safety.
- Partnership with **Johnson Controls**, a global leader in smart building management
- Blended model of classroom sessions and field attachment including case studies, breakout sessions, assignments and presentations



## Digital Transformation: “SMEs Go Digital” Programme



### Chief Technology Officer-as-a-Service

- A service to help SMEs self-assess their digital readiness and needs, access market-proven and cost-effective digital solutions and engage digital consultants for in-depth digital transformation strategy advisory and project management services



### Sector-specific Industry Digital Plans (IDPs)

- Aligned with the Industry Transformation Maps (ITMs) for each sector, IDPs provide SMEs with a step-by-step guide to identify suitable digital solutions and training programmes to equip employees with the right skillsets at each stage of their digitalisation journey



### ‘Start Digital’ and ‘Grow Digital’

- Start Digital – building SMEs’ foundational digital capabilities with easy-to-deploy solutions in areas like Accounting, HR, Digital Marketing, Digital Transactions, Digital Collaboration and Cybersecurity
- Grow Digital - Digital solutions for SMEs to expand their businesses locally and overseas through e-commerce platforms



## Digital Transformation: Helping Businesses and Workers Embrace Digitalisation

### Industry Transformation Maps

- Sector-specific strategies by the Singapore government in growth sectors such as manufacturing, healthcare, logistics and financial services
- Drive transformation and growth through research and development, deep tech innovation, extensive digitalisation

### Digital Industry Singapore

- Government agency set up in 2019 to serve as a single interface between the Singapore government and the technology sector
- Works closely with digital businesses, startups, and technology companies to nurture a vibrant ecosystem, encourage entrepreneurship, and attract investment

### Smart Nation Initiative

- A whole-of-nation effort with three pillars - Digital Government, Digital Economy, and Digital Society – which collectively harness technology to effect transformation in health, transport, urban living, government services and businesses
- Anchored by Strategic National Projects to drive and enable the adoption of digital and smart technologies throughout Singapore, such as a National Digital Identity

## Context Setting

## Individual-level

## Enterprise-level

## Industry-level

### Wholesale trade: industry transformation map



#### Ensuring Singapore's relevance for tomorrow's global trade

Develop a vibrant trade ecosystem comprising global and local players

### Wholesale trade is the business-to-business (B2B) transaction of goods



- Agricultural materials
- Household goods
- Fuels and chemicals
- General merchandise
- Machinery and equipment
- Transport equipment
- Others (metals and minerals, construction materials)

### Contributes to\*



**325,000 jobs**  
9% of Singapore's workforce



**12% of**  
Singapore's GDP,  
**S\$47.3b**



**Over 34,000** wholesale  
trade companies in Singapore

\*Department of Statistics, 2016; Ministry of Manpower, 2016

### Trends affecting global trade



**Global volatility and increased competition**



**Technological advancements**  
■ Current business models may be disrupted  
■ Digital skillsets will be needed



**Asia's economic growth, increased urbanisation and consumerism**  
■ Urbanisation will spur demand for machinery and equipment  
■ Rising affluence will drive demand for consumer goods

### Strategies

#### For companies

Enhance trade and digital connectivity



Develop digital platforms



Reduce manual administrative processes



Assist SMEs to adopt digital tools



Integrated support to help enterprises build capabilities and access overseas markets

#### For individuals

Develop industry-ready talent with digital skills and international experience

#### ■ Retrain, upgrade and redeploy PMETs

Help mid-career and/or unemployed professionals make the career switch to trade through professional conversion programmes: job matching, on-the-job training and classroom and online learning

#### ■ Equip graduates

Develop talent specifically for trade industry through specialised diploma and degree programmes with internships and industry mentorship

### Outcomes



■ Access new markets  
■ Improve productivity and achieve economies of scale

### Outcomes

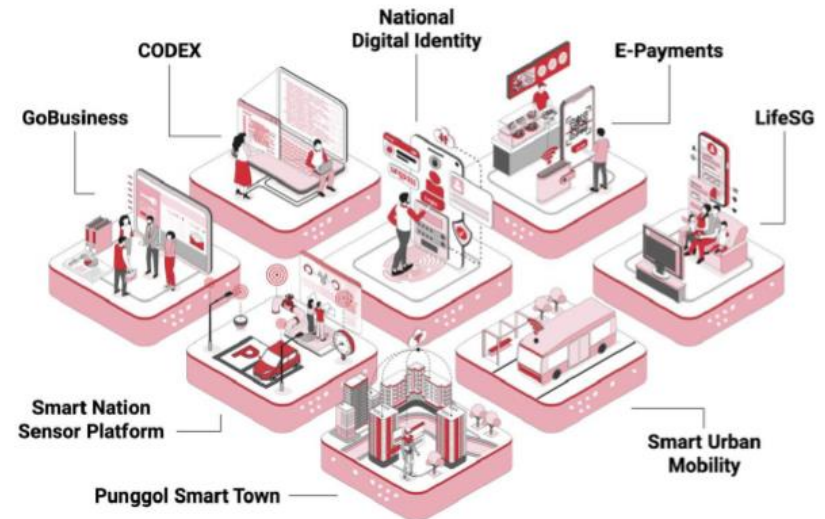


■ Find rewarding jobs  
■ Gain international exposure

Source: IE Singapore



Smart Nation  
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## Summary

- The growth of the digital economy has introduced new risks and challenges, but also opportunities and growth areas for workers and businesses.
- Governments must **invest in digital upskilling and digital transformation** in order to leverage on these opportunities and prepare workers and businesses, especially SMEs.
- Upskilling initiatives can **target various parts of the talent pipeline**, from students, to mid-career professionals, to workers looking to undergo career transition.
- Policies and programmes must also target **ecosystem development and deliver mindset shifts** among citizens to build adaptability, resilience and openness to change.





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