COVID-19 and beyond:

Sharing of Transport and Logistics Skills Trends and Training

by SkillsFuture Singapore

9 March 2021
SkillsFuture Singapore works with sector stakeholders to drive skills and talent acquisition as our competitive advantage.

**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

- Part of Singapore Ministry of Education
- Drive and coordinate the SkillsFuture movement
- Strengthen ecosystem of quality education and training, including adult training infrastructure and adult educators
- Promote a culture of lifelong learning through pursuit of skills mastery
- Raise quality of private education institutions and training providers
SkillsFuture is a national movement that started in 2015 to provide Singaporeans with the opportunities to develop to their fullest potential throughout life through **skills mastery** and **lifelong learning**.

### Key thrusts of SkillsFuture

- Help individuals make well-informed choices in education, training & careers
- Develop an integrated high-quality education & training that responds constantly to evolving needs
- Promote employer recognition & career development based on skills & mastery
- Foster a culture that supports & celebrates lifelong learning

### Why do we do this?

- Declining workforce growth and ageing population
- Technology and globalisation are changing jobs and skills
- Aspirations for higher academic qualifications remain strong
- Move towards a productivity and innovative-driven economy
- Ensure workers’ skills remain relevant and future-ready
- Ensure good employment outcomes while preventing ‘paper chase’
SkillsFuture Singapore develops national skills resources such as the Singapore Skills Framework and coordinates skills supply to meet the demand to support industry transformation.

1 To date, SkillsFuture has developed 34 Skills Frameworks targeting two-thirds of the Singapore workforce.
The different pillars of the skills & training ecosystem cater to our target stakeholder groups of enterprises, individuals and training providers.

**Develop and implement Skills Frameworks**

- Codify job roles and skills (including emerging jobs/skills)
- Develop career pathways (vertical and lateral, adjacent across sectors)
- Signpost and publish information accessible to the stakeholders (E.g. My SkillsFuture portal)

**Work with quality Training Partners to develop training solutions**

- Signal trends, changing job roles and emerging skills
- Engage strategic partners to curate and develop skills packages

**Manage supply of relevant CET programmes**

- Assess CET demand and supply landscape
- Expand capacity where applicable, especially to address gaps in emerging areas

**Build ecosystem of Training and Adult Education (TAE) Enablers**

- Empower the TAE Sector to support sectoral transformations
- Strengthen the quality of CET system
Over the years, SSG has developed a skills architecture to support industry transformation efforts in Transport and Logistics.

1. **Skills Frameworks (SFws)**
   - Target individuals, enterprises, Institutes of Higher Learning (IHLs) and training providers
   - Identify key skills tagged to job roles, career progression paths and relevant training programmes
   - To date, there are Skills Frameworks for Public Transport, Sea Transport, Air Transport and Logistics. Together, they cover 322 job roles.

2. **Industry Digital Plans (IDPs)**
   - Target Small and Medium Enterprises to help them in their digitalisation plans
   - SSG works with government agencies, unions and training partners to co-curate the digital training roadmap

3. **Work Study Programmes (WSPs)**
   - Target fresh polytechnic and Institute of Technical Education graduates
   - To provide industry-relevant training to trainees while gaining work experience

4. **Continuing Education and Training (CET) Programmes**
   - SkillsFuture Series are bite-sized courses targeted at working professionals. Cover emerging skills in areas such as urban solutions, data analytics, and tech-enabled services
   - Singapore Workforce Skills Qualifications (WSQ) programmes in Warehouse Services, Freight & Transport Services, Rail and Bus
Case Study 1 – Development of SkillsFuture Framework for Logistics

**Sector Information**

Logistics: A Key Enabler of the Global Economy

Evolving Landscape

**Occupations and Job Roles**

**Logistics Solutions Specialist**

- Job Role Description: The Logistics Solutions Specialist is responsible for analyzing, designing, and managing various aspects of logistics solutions for the supply chain, network planning, and demand forecasting operations.

- Critical Work Functions:
  - Analyze data and research outputs to offer explanations for data findings.
  - Analyze the wider implications of analysis and research to sustain improvement initiatives.

- Key Tasks:
  - Review results and discuss with key stakeholders.
  - Identify appropriate solutions to address customer needs based on analysis.

**Logistics Solutions Manager**

- Job Role Description: The Logistics Solutions Manager is responsible for managing the performance of logistics and planning business development, optimizing and aligning market demand and supply-side logistics solutions for the organization. They must identify and recruit employees and plan and manage logistics operations.

- Critical Work Functions:
  - Develop and maintain key internal and external stakeholder relationships.

- Key Tasks:
  - Analyze data and research outputs to offer explanations for data findings.
  - Analyze the wider implications of analysis and research to sustain improvement initiatives.

**Career Map and Progression Pathways**

**Skills Map**

Skills Framework for Logistics

Career Pathways

Skills and Competencies

- **Logistics Solutions**
  - Career Paths:
    - Manager
    - Specialist

**Skills Map**

Skills and Competencies (GIC/R)

- Professional Level
  - Communication
  - Managing Diversity
  - Project Delivery
  - Service Orientation
  - Strategic Thinking

- Functional Skills and Competencies (R&G)
  - Professional Level
    - Business Development
    - Cloud Computing Application
    - Contract/Supplier Management
    - Customer Relationship Management
    - Data and Demand Analysis
    - IT Applications
    - Financial Management

- Technical Skills and Competencies (T&G)
  - Professional Level
    - Analytics
    - Information Technology and Applications

- Logistics Framework for Logistics

Skills Map
## Case Study 2 – Work Study Programmes for Transport and Logistics

### Sea Transport

<table>
<thead>
<tr>
<th>Programme</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Work-Study Programme in Shipowning, Operating and Broking</strong></td>
<td>For fresh Polytechnic graduates to take on job role such as ship charterers, operations officers and ship brokers</td>
</tr>
<tr>
<td><strong>Work-Study Post Diploma (Specialist Diploma in Port Management and Operations)</strong></td>
<td>For fresh polytechnic/NITEC graduates to take on job roles such as ports operation officer</td>
</tr>
<tr>
<td><strong>Work-Study Post-Diploma for Seafaring Deck Officer</strong></td>
<td>For fresh poly graduates (CoC3 Deck Officers) to take on roles such as Chief Officer on board ships</td>
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### Air Transport

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<th>Programme</th>
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<tbody>
<tr>
<td><strong>Work-Study Programme leading to Part-Time Diploma in Engineering (Aviation Management)</strong></td>
<td>For fresh ITE graduates to take on job roles such as Ground Operations Specialists and Passenger Services Agents</td>
</tr>
<tr>
<td><strong>Work-Study Post Diploma Programme leading to Specialist Diploma in Aviation Management</strong></td>
<td>For fresh polytechnic graduates to become air transport officers in areas such as ground operations, management and business functions</td>
</tr>
<tr>
<td><strong>Work-Study Post Diploma Programme leading to Specialist Diploma in Aviation Management and Services</strong></td>
<td>For fresh polytechnic graduates to become air transport officers in areas such as airport engineering and operations, airside operations, and passenger services management</td>
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## Land Transport

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<tr>
<th>Programme</th>
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<tbody>
<tr>
<td><strong>Work-Study Cert leading to Diploma in Vehicular Technology and Operations</strong></td>
<td>For Fresh Nitec/Higher Nitec graduates to take on job roles of a technician/technician specialist to maintain automotive operations.</td>
</tr>
<tr>
<td><strong>Work-Study Cert leading to Part-Time Diploma in Engineering</strong></td>
<td>For Fresh Nitec/Higher Nitec graduates to take on job roles of a technical officer or assistant engineer in Permanent Way or Rolling Stock.</td>
</tr>
<tr>
<td>(Mechanical-Rapid Transit Technology)</td>
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<tr>
<td><strong>Work-Study Cert leading to Part-Time Diploma in Engineering</strong></td>
<td>For Fresh Nitec/Higher Nitec graduates to take on job roles of a technical officer or assistant engineer for MRT or Rail industry.</td>
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<tr>
<td>(Electrical-Rapid Transit Technology)</td>
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## Logistics

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<tr>
<td><strong>Work-Study Diploma in Logistics &amp; Supply Chain Management</strong></td>
<td>For Fresh Nitec/Higher Nitec graduates to take on job roles such as Team Leads, Team Specialists or Team Supervisors</td>
</tr>
<tr>
<td><strong>Work-Study Post Diploma in Supply Chain Management</strong></td>
<td>For polytechnic graduates to take on job roles such as Logistics Officer upon completion of 12-month programme</td>
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Digital Training Roadmap helps SMEs to onboard the digital solutions highlighted in the IDP.
When COVID-19 struck, Singapore’s transport and logistics sectors were deeply affected, with Air and Land Transport being hit the hardest.

- Stuck at sea: Seafarers who kept international trade humming despite Covid-19
- 2,400 SIA staff affected by job cuts amid Covid-19 fallout
- Jetstar Asia to cut S'pore workforce by a quarter
- Bus, train ridership in Singapore falls to 11-year low amid Covid-19 pandemic
- Passenger traffic at Changi Airport fell 82.8% last year
- S'pore cabbies, private-hire drivers find the going tough even with easing of Covid-19 restrictions

Source: The Straits Times, Business Times
To mitigate the impact, two goals were quickly established:

1. Helping workers to **retain** their jobs; and
2. Helping displaced workers **move** to other in-demand job roles.

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<th>Key Dimensions</th>
<th>Challenge and Opportunity</th>
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<td>Access</td>
<td>How can we work with training providers and Institutes of Higher Learning (IHLs) to help them scale training while practicing safe distancing measures?</td>
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<td>Quality and Industry Relevance</td>
<td>How would we identify the critical skills needed for existing employees to take on an expanded job scope? What were the in-demand job roles during the pandemic?</td>
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<td>Cost</td>
<td>How do we lower the monetary cost of learning so that it is not prohibitive and employers can continue to support employees in their training?</td>
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Interventions were designed to leverage on existing skills architecture and complement one another.

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<td>1</td>
<td>- Facilitate the shift to online learning (synchronous and asynchronous)</td>
<td>- Identify key emerging trends and impact on jobs and skills</td>
<td>- Target existing employees to retain core competencies</td>
<td>- Target displaced mid-careerists to upskill and place them in in-demand job roles</td>
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<td></td>
<td>- Provide grace period for Adult Educators to take WSQ Advanced Certificate in Learning and Performance (ACLP)</td>
<td>- Organise webinars to share about in-demand skills for public awareness</td>
<td>- Key outcomes include applied competencies and retention of employees</td>
<td>- IHLs/ Training partners to aid in career placement services</td>
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Case Study 4 – Partnerships with IHLs to deliver skills training

**National University of Singapore (NUS)**
- Top ranked University in Asia in the QS World University Rankings 2021
- Actively explores partnerships with companies such as SIA, Mercedes Benz, and Shell to maintain industry networks
- NUS offers **SGUS** programmes in areas such as Manufacturing and Data Science
- For Air Transport, NUS delivers 20 **ETSP**-supported programmes in:
  - Artificial Intelligence
  - Robotics Process Automation
  - Cybersecurity

**Singapore Polytechnic (SP)**
- IHL Sector Coordinator for Sea Transport related programmes
- Have developed various **Work-Study programmes** related to shore-based and sea-based job roles
- Keen understanding of the international maritime sector’s manpower
- SP delivers the following **SGUS** programmes in Sea Transport:
  - Maritime Superintendent
  - Maritime Business Executive
  - Marine Engineer Officer
  - Deck Officer
1. COVID-19 presents an invaluable opportunity to accelerate training for many companies in their digitalisation and digitisation journey.

2. There are common transferrable and adjacent skills between the various sectors in Transport and Logistics. Identifying these skills is key to facilitate labour mobility and implement effective interventions.

3. Collaborations amongst Government, Unions, Training Community and Businesses are critical to ensure the propagation of industry-relevant training.