What is at stake?

**Organisational level**
- **Singapore**: 96% of employers in Asia believe skills shortages have the potential to impact the effective operation of their business or department this year.

**Individual level**
- More than 40% of Singapore workers quit job due to lack of skills training.

**Economy level**
- By 2030, Singapore could lose out $106.82bn USD that will not be realized due to talent shortages.

**World**
- 79% of CEOs are worried about the availability of key skills.

**Individual level**
- 77% of adults say they would learn new skills or completely retrain to improve their future employability. But only 33% feel they have given opportunities to develop digital skills.

**Economy level**
- Advanced upskilling organizations are more optimistic about global economic growth – 34% expect improvement vs 15% of CEOs of beginning upskilling organisations.

Korn Ferry 2016
PwC’s 22nd and 23rd CEO’s surveys, 2019 and 2020
Significant retraining/upskilling among the efforts to close the highly skilled workers gap.

Source: PwC’s 22nd Annual Global CEO Survey 2019
Organisations that have made the most progress in upskilling are achieving better business outcomes.

How effective your upskilling programmes in achieving the following outcomes?

Source: PwC, 23rd Annual Global CEO Survey 2020
Base: Advanced = 353. ‘Advanced upskilling’ organisations refer to the top quartile of CEOs regionally who have reported the most progress in upskilling comparing to the companies in the beginning of their upskilling journey.
The net growth in our total employment, excluding foreign domestic workers, has slowed significantly. From more than 200,000 a year before the global financial crisis to more than 100,000 a year after the global financial crisis, and to less than 25,000 in 2015 and less than 10,000 last year. As we transform to take our Singapore economy into the future, some may wonder:

- Will more workers be displaced by technology?
- Will more workers be made redundant?
- Will more jobs go to foreigners?
- Will the rise in digital and gig economy change the employment landscape resulting in less employment and more freelancing?

Main speech by Mr Lim Swee Say, Minister for Manpower at Committee of Supply 2017
SkillsFuture Singapore is a national programme to reskill and upskill the population in line with the 4th Industrial Revolution.

$500 for each Singaporean to use on training

SkillsFuture Singapore (SSG) gives all Singaporeans aged 25 and above with $500 to use on training courses. SkillsFuture provides an opportunity to develop fullest potential throughout life, regardless of their starting points.

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

FOR

<table>
<thead>
<tr>
<th>Students</th>
<th>Employees (early career)</th>
<th>Employees (mid-career)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example, enhanced internships, intensive professional trainings tailored to the concrete industry, trainings for future ICT professionals, etc.</td>
<td>For example, training For Digital Workplace; Courses in chosen field, etc.</td>
<td>For example, SkillsFuture Fellowship that provides $10,000 to support individual’s journey towards skills mastery in their respective field.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employers</th>
<th>Training providers</th>
<th>Learning Throughout Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example, SkillsFuture Leadership Development Initiative that aims to develop the next generation of Singaporean leaders.</td>
<td>For example, SkillsFuture Series as a list of short, industry-relevant trainings that focuses on emerging skills.</td>
<td>For example, MySkillsFuture as an education, training and career guidance online portal that empowers people to plan their lifelong learning.</td>
</tr>
</tbody>
</table>
Preparing workforce for Industry 4.0

Industry 4.0 is not about replacing existing workers with machines or new workers. An essential component is the training of existing workers to equip them with the skills to use the new technologies.

Mr Chee Hong Tat, Senior Minister of State, Ministry of Trade and Industry & Ministry of Education

Collaboration between government, business and academia

SkillsFuture Singapore, Bosch Rexroth, Singaporean-German Chamber of Industry and Commerce, Singapore Polytechnic and JTC signed a Memorandum of Understanding (MoU) to establish the Bosch Rexroth Regional Training Centre (BRRTC) in Singapore. BRRTC will deliver and certify Industry 4.0 Specialists meeting the German Industrie Handelskammer (IHK) standard in Southeast Asia.

Job Skills Insights

Job Skills Insights provides information to help individuals, enterprises and IHL navigate skills and jobs landscape and make informed choices. They will draw on timely, quality and relevant data on key themes, such as jobs and skills in demand across industries, the changing mix of job roles and skills requirements and emerging skills needs.

IHL introduced four new programs relevant for Industry 4.0, for example, Specialist Diploma in Augmented Reality & Virtual Reality.

The number of SkillsFuture courses increased from 400 to over 1,500 in 2017. As at March 2019, there were 40,000 participants.

New Institutions of Higher Learning (IHL) Programmes in Emerging Skills

Mr Chee Hong Tat, Senior Minister of State, Ministry of Trade and Industry & Ministry of Education

The number of SkillsFuture courses increased from 400 to over 1,500 in 2017. As at March 2019, there were 40,000 participants.
The Institute of Banking and Finance Singapore

IBF Singapore provides trainings and exams to achieve up-to-date qualifications for the profession in financial sector and get certified.

IBF uses SkillsFuture’s Framework and provides different formants for learning. IBF allows to supplement training with other learning platforms: mobile learning app, seminars and masterclasses on the latest industry trends and issues. IBF also offers career advisory services to individuals through helping individuals: improve job search skills, uncover competency and skills, learn about job trends and labour market, connect with other finance professionals and identify programmes to enhance employability.

Financial professionals use the Skills Framework for:

- Identifying and acquiring new/emerging skills to keep abreast of the changes in the industry
- Attending relevant training programmes to help to attain the required skills and be ready for the job
- Recognising the skills and competencies required for the desired job role
- Understanding the career pathways and the attributes needed to take on a particular job role in the financial services industry

Exam

Certification

Training
Skills Expander first nationwide end-to-end upskilling process supported by AI-platform

Step 1: Analyse & define the Upskilling initiative
Step 2: Define the Future Workforce
Step 3: Assess current competencies
Step 4: Find the best possible job and training match
Step 5: Train the new competencies
Step 6: Monitor, evaluate & improve policy
Proof of Concept for sectorial upskilling platform / Singapore

Supporting a not-for-profit industry association with the development of a Proof-of-Concept Future Skills Readiness Assessment Platform for the Financial industry in Singapore

PwC delivered a Proof-of-Concept Platform to recommend job mobility between the current and new roles based on skills adjacency and to identify the skills gaps to be addressed across the Financial sector in Singapore.

This approach allows us to:

• Set-up a POC Future Skills Readiness Assessment Platform tailored to the client by incorporating: skills frameworks relevant to the client; relevant findings from a study analysing the future of the Financial sector; real job descriptions from Financial institutions; inputs from the current job market in Singapore (real job vacancies)

• Analyse role proximity/ between the current roles and new roles. Current and future roles were defined based on the different inputs incorporated in the tool

• Perform a skills gap analysis and identify additional skills required to transition from current to new roles

• Provide additional features to the client: identification of best fitting training programmes; provision of macro insights to understand trends in the sector and at country level for policy design and decision-making

• Develop a scalable and modular solution in a cloud-based environment which allows API connectivity and a user-centric approach

Claims Assessor, Customer Service

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Potential for developing any skills

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<tr>
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</tbody>
</table>

The potential of your CV reaches 12%
Contacts

Christian Scharff
People & Organisation, Partner
christian.scharff@pwc.com

PwC Luxembourg UPskill book via website pwc.lu

The Lost Workforce worldgovernmentsummit.org

Luxembourg Digital Skills Bridge website skillsbridge.lu
THANK YOU!