

Fact Sheet

23 May 2017

TECHSKILLS ACCELERATOR (TeSA)

Introduction

- 1 The TechSkills Accelerator (TeSA) is a tripartite initiative between the government, industry and the National Trades Union Congress (NTUC), to build and develop a skilled Information and Communications Technology (ICT) workforce for the Singapore economy, and to enhance employability outcomes for individuals.
- 2 The Infocomm Media Development Authority (IMDA), which drives TeSA for ICT professional development, takes an integrated approach to ICT skills acquisition and practitioner training - in core ICT skills and in sector-specific ICT skills - and enhance employability outcomes through place and train programmes, and career advisory services. As of mid-February 2017, TeSA has enabled more than 10,000 ICT professionals to up-skill and re-skill themselves.

Background

- 3 This is a flagship initiative launched by Minister Heng Swee Keat during Budget 2016, and implemented through the Ministry of Communications and Information (MCI) as announced by Minister Yaacob Ibrahim at the Committee of Supply debate 2016.
- 4 In 2016's Budget speech¹, Minister for Finance, Mr Heng Swee Keat, announced the formation of the TechSkills Accelerator (TeSA) and shared that TeSA would pioneer a new way of enabling Singaporeans to acquire expertise and skills and meet employers' requirements for ICT professionals.

¹ Full Budget speech can be found at: http://www.singaporebudget.gov.sg/budget_2016/BudgetSpeech.aspx

- 5 Subsequently, Minister for Communications and Information, Dr Yaacob Ibrahim, announced during the Committee of Supply debate² that MCI and IDA (now IMDA) would drive a \$120 million Manpower Development Plan that included TeSA for ICT professional development. TeSA would be an integrated approach to ICT skills acquisition and practitioner training, in core ICT skills and in sector-specific ICT skills; and enhance employability outcomes through place and train programmes, and career advisory services.

State of ICT Manpower Across the Economy

- 6 As of 2015, there are approximately 170,000 ICT professionals employed across the economy, with about 20,000 vacancies at the same time. About half of the ICT professionals employed work in the ICT sector, while the remaining half is employed by other sectors across the economy. The ICT sector contributes to about 8% of our GDP today. Enterprises across the economy have projected hiring expectations of about 53,000 ICT professionals over the next few years from 2016 to 2018.

Three key roles of TeSA

- 7 Masterplanner – bring key ICT hirers and the ICT industry together; partner with government agencies and the NTUC to collectively develop strategic plans to build capabilities of ICT professionals, address skills gaps in a fast changing digital world, and help individuals obtain emplacement in ICT jobs, with the support of training organisations and certification providers, industry associations and career services providers;
- 8 Coordinator – oversee the development of an effective ecosystem of training, certification and career services that is relevant to needs of the economy; and,

² Full speech can be found at: <https://www.mci.gov.sg/cos2016>

- 9 Enabler – oversee the development of a national skills framework for ICT, skills development and job placement programmes with companies and organisational partners, and integrated career services.

Three key thrusts of work by TeSA

10 Thrust 1 – Skills Framework for ICT

Started in 2016 with a targeted completion date in the third quarter of 2017, this skills framework for ICT will replace the current National Infocomm Competency Framework. It can be used by hirers to develop career maps and articulate job requirements, used by individuals to guide their skills identification and development to stay relevant, and used by training providers to devise ICT courses. Some critical skill areas include network and infrastructure, software development and engineering, data and analytics, cyber-security. As of February 2017, about 80 ICT skillsets have been identified by the industry.

11 Thrust 2 – Skills Acquisition and Validation

A broad-based approach to skills development – modular and certifiable skills courses – will be taken to enable individuals to upskill or deepen their knowledge in various skills of choice to fill gaps. A targeted approach will also be taken with companies, coding schools, Continuing Education and Training (CET) and other organisational partners to provide eligible individuals with various pathways to join the ICT profession, upskill and reskill themselves. These programmes include Company-Led Training Programme, Tech Immersion and Placement Programme, CITREP+, Earn and Learn, and Professional Conversion Programme.

12 Thrust 3 – Integrated Career Services

This is a coordinated career support ecosystem launched in October 2016 for job matching, group mentoring, and leadership programmes by tripartite partners. It is represented by NTUC, e2i, Singapore Computer Society (SCS), IMDA and Workforce Singapore. (WSG) It provides dedicated and focused career advisory, facilitation and support services for individuals who are looking to join or develop their careers in ICT. There are various initiatives to enhance the chances of employability for individuals, namely, (1) physical and virtual career fairs, (2) physical career centres with career

coaches (3) experienced ICT professionals through SCS to provide mentorship advice.

Structure of TeSA

13 To guide the work of TeSA under its three key thrusts, there is a Governing Council who oversees for now, three sector committees in ICT, Finance and Healthcare.

14 Composition of Governing Council

Chairperson:

(Mr) Tan Kiat How, CEO / IMDA

Members:

1. (Ms) Shirley Wong, Past Chairman / Singapore IT Federation
2. (Mr) Howie Lau, President / Singapore Computer Society
3. (Mr) Alvin Ong, President / IT Management Association
4. (Mr) Robert Yap Min Choy, Deputy Honorary Secretary / Singapore National Employer Federation
5. (Mr) Augustin Lee, Deputy Secretary / Ministry of Manpower
6. (Mr) Ng Cher Pong, CEO / SkillsFuture Singapore
7. (Mr) Tan Choon Shian, CEO / Workforce Singapore
8. (Ms) Jacqueline Poh, CEO / Government Technology Agency

Co-Chairs, ICT Sector Committee

9. (Mr) Khoong Hock Yun, ACE / IMDA
10. (Mr) Lim Kang Song, Co-chair, Talent & Capabilities Committee / Singapore IT Federation
11. (Mr) Benjamin Mah, Co-chair, Talent & Capabilities Committee / Singapore IT Federation

Co-Chairs, Finance Sector Committee

12. (Mr) Sopnendu Mohanty, Chief FinTech Officer / Monetary Authority of Singapore

13. (Ms) Susan Hwee, MD and Head of Group Technology and Operations / UOB (current chairing bank of Association of Banks of Singapore)

Chair, Healthcare Sector Committee

14. (Mr) Bruce Liang, CEO / Integrated Health Information Systems, also CIO Ministry of Health

More information is available at www.imtalent.sg

About Infocomm Media Development Authority (IMDA)

The Infocomm Media Development Authority (IMDA) will develop a vibrant, world-class infocomm media sector that drives the economy, connects people, bonds communities and powers Singapore's Smart Nation vision. IMDA does this by developing talent, strengthening business capabilities, and enhancing Singapore's ICT and media infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment. IMDA also enhances Singapore's data protection regime through the Personal Data Protection Commission. For more news and information, visit www.imda.gov.sg or follow IMDA on Facebook [IMDAsg](#) and Twitter [@IMDAsg](#).

For media clarifications, please contact:

Regina GOH (Ms)
Manager, IMDA
DID: (65) 6211 1295
Mobile: (65) 9839 5913
Email: regina_goh@imda.gov.sg

SKILLS FRAMEWORK FOR INFOCOMM TECHNOLOGY

About Skills Framework

1 The Skills Framework is an integral component of the Industry Transformation Maps and is co-created by Employers, Industry Associations, Unions and Government for the Singapore workforce. The Skills Framework provides key information on sector and employment, career pathways, occupations/job roles, as well as existing and emerging skills required for the occupations/job roles. It also provides a list of training programmes for skills upgrading and mastery. Individuals can use the Skills Framework to make informed decisions on education and training, career development and skills upgrading based on the sector, employment, occupation/job role, skills and training information in the framework. Employers can use the Skills Framework to design progressive human resource management and talent development plans based on the detailed skills information in the framework. Training providers can use the Skills Framework to gain insights into industry trends and skills in demand, which allow them to innovate and contextualise their curricula design and training programmes to suit the needs of the industry.

About Skills Framework for Infocomm Technology (ICT)

2 The Skills Framework (SF) for ICT is jointly developed by IMDA and SSG to provide a guide for individuals, employers and training providers to promote skills mastery and lifelong learning for ICT professionals.

Target Audience for the SF for ICT

- 3 The target groups for SF for ICT are as follows:
- a) Individuals with the passion and interest to pursue a career as well as skills development in ICT, and/or who are in-service ICT professionals.
 - b) Employers of ICT professionals who would like to identify emerging skills and build new capabilities, recognise their employees' skills and invest in skills training for them, and/or strengthen their organisational capability and enhance talent attraction, management and retention.
 - c) Training providers who are looking to gain better insights into sector trends, and existing and emerging skills in demand, as well as design programmes that address the ICT manpower and skills needs.

Project Timeline

- 4 Project commenced in April 2016, and is scheduled to complete in September 2017.

COMPANY-LED TRAINING (CLT) PROGRAMME

1 The CLT programme is an initiative to catalyse private-sector companies to co-invest in developing professionals for tech jobs which are in demand by the industry. The programme aims to fast-track fresh professionals and upskill or reskill experienced professionals to acquire skills for technical job roles in demand, especially in software development, data analytics, cybersecurity, network and infrastructure, and in Smart Nation projects.

Programme Coverage

2 Through the CLT programme, companies who are “Training Partners” will provide structured training that may last up to 12 months for fresh professionals and up to six months for mid-level professionals (please refer to “Eligibility Criteria” on definitions of fresh and mid-level professionals). The structured training could include a combination of On-the-Job Training (OJT), local and/or overseas attachment offered by industry partners, as well as in-depth training through internal and/or external courses. At the end of the training, trainees will be skilled up with competencies for tech job roles in demand which are aligned to the National Infocomm Competency Framework (NICF).

Eligibility Criteria

- 3 Trainees eligible for the CLT programme must be:
- Singapore Citizens holding Diploma, Degree or other relevant qualifications;
 - Fresh Professionals within the first three years of graduation in ICT or Science, Technology, Engineering and Math (STEM) disciplines or related disciplines;
 - Mid-level Professionals with more than three years of working experience after graduation in ICT or STEM disciplines or related disciplines.

Profile of Training Partners

- 4 Companies selected to be Training Partners under the programme may be ICT or user companies that require ICT professionals. The Training Partner:
- Must be a Singapore-registered company / organisation;
 - Should possess the necessary capabilities and capacity to deliver the training programmes;
 - Must be prepared to commit resources (including practical projects and mentors) to develop trainees; and
 - Should possess good past track record of Human Resource Development.

Programme Support

- 5 Trainees and Training Partners under the programme will receive funding support for qualified items as follows:
- Monthly stipends for trainees for fresh and mid-level professionals;
 - Training fees for local / overseas in-depth training and / or local / overseas attachment and / or courseware development fees

- Cost of Living Allowances (COLA) and return air fare for trainees selected to participate in overseas attachment.

More information is available at www.imtalent.sg/ct.



TECH IMMERSION AND PLACEMENT PROGRAMME

- 1 The Tech Immersion and Placement Programme aims to convert non-ICT professionals into industry-ready ICT professionals. They will be placed into tech job roles, after undergoing a short intensive and immersive training course delivered by industry practitioners.
- 2 Through the intensive and immersive courses or bootcamps, trainees will build an impressive portfolio of ICT projects. They also get to interact with leading experts in the respective fields, to help them prepare for roles in the ICT industry such as web developers, mobile app developers, user experience designers, and data analysts.
- 3 Placement into company job roles generally include the following:
 - Full Time Employment (Permanent, Contract work or Working for Equity);
 - Change of job role to a relevant tech role.

Eligibility Criteria

- 4 The programme supports Singaporeans including:
 - Non-ICT professionals, including mid-career switchers without ICT background, who are interested in a tech career;
 - Current ICT professionals interested in upskilling in preparation for new tech positions; and
 - Fresh graduates from STEM (Science, Technology, Engineering and Mathematics) background or other disciplines, who are interested in the ICT profession.

Programme Support

- 5 Singaporeans qualified for the courses supported in the Tech Immersion and Placement programme will be entitled to a subsidised course fee.

More information on the Programme and the list of tech immersive course providers are available at www.imtalent.sg/tipp website.

CRITICAL INFOCOMM TECHNOLOGY RESOURCE PROGRAMME PLUS (CITREP+)

1 The Critical Infocomm Technology Resource Programme Plus (CITREP+) is an initiative by the Infocomm Media Development Authority (IMDA) to support the ICT workforce in keeping pace with technology shifts, through the continuous and proactive training of technical skills sets, in order to remain relevant and productive.

Programme Description

2 To build a strong core of specialised Singaporean ICT professionals with Smart Nation capabilities, CITREP+ is now structured to support Students and Professionals to build specialised ICT skills through broad-based training and certification.

3 IMDA will partner with training providers to develop and offer quality Infocomm professional development technology courses, and professional certifications that impart knowledge and skills in relevant areas.

4 As an extension to the existing support for classroom-based courses and professional certifications, CITREP+ will now support selected Massive Open Online Courses (MOOCs) that have specific focus on developing ICT skillsets. More details will be released by IMDA at a later date.

Programme Support

Category	CITREP+ (Essentials)
Professionals	Up to 70% of the nett payable fees
Cap	\$2,500 per trainee
Students	Up to 100% of the nett payable fees
Cap	\$2,000 per trainee

Eligibility Criteria

5 To be eligible for funding support under CITREP+, a trainee must:

- Be a Singapore Citizen
- Meet the admission criteria set by the Course Provider or Certificate Awarding Body.
- Be enrolled by the endorsed course provider or testing centre for the intended course or certification in the Infocomm Competency Management System (ICMS) before the commencement of the training course or certification.

6 For Organisation-Sponsored Trainees:



- The sponsoring organisation must be incorporated or registered in Singapore.
- Employees of Local Government Agencies are not eligible. Employees of these organisations can, however, qualify for CITREP+ under the self-sponsored category.

7 For Students:

- Students from post-secondary education institutes (PSEI) of Singapore will be required to demonstrate proof of matriculation from their respective schools.

Claim Conditions

8 For Course and Certification Fees Support

The trainee must complete the course and pass all examinations required by the certification or post-training assessment within 12 months from the course commencement date:

- Meet the minimum 75% attendance of the training course as per endorsed roadmap; and
- Achieve the final certification status (applicable to certifiable programmes only).

9 For Certification Fees Support

The trainee must pass all examinations required by the certification and achieve the final certification status within 12 months from the commencement date of the first examination.

More information is available at www.imtalent.sg/citrep.