

Addressing the Skills Needs of Our Economy – A Whole of Nation Initiative

Panel Discussion: Identifying and Addressing Longer-Term Work Trends: Roles of the State and Educational Institution, IPS Singapore Perspective 2023: Work, 5 January 2023



Singapore takes pre-emptive measures to address the skills needs in the short and medium term

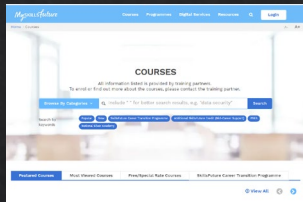
Close partnership within the skills ecosystem to anticipate, articulate and activate upskilling and reskilling of our workforce

Close monitoring of potential skills gaps and ensuring adequate outcome-based Continuing Education and Training courses

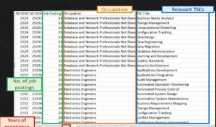
SSG is leveraging big data and partnerships in the skills ecosystem to analyse skills demand and supply trends to translate into actionable Jobs-Skills Insights for different stakeholders

Plan, activate and monitor CET programmes take-up and skills utilisation

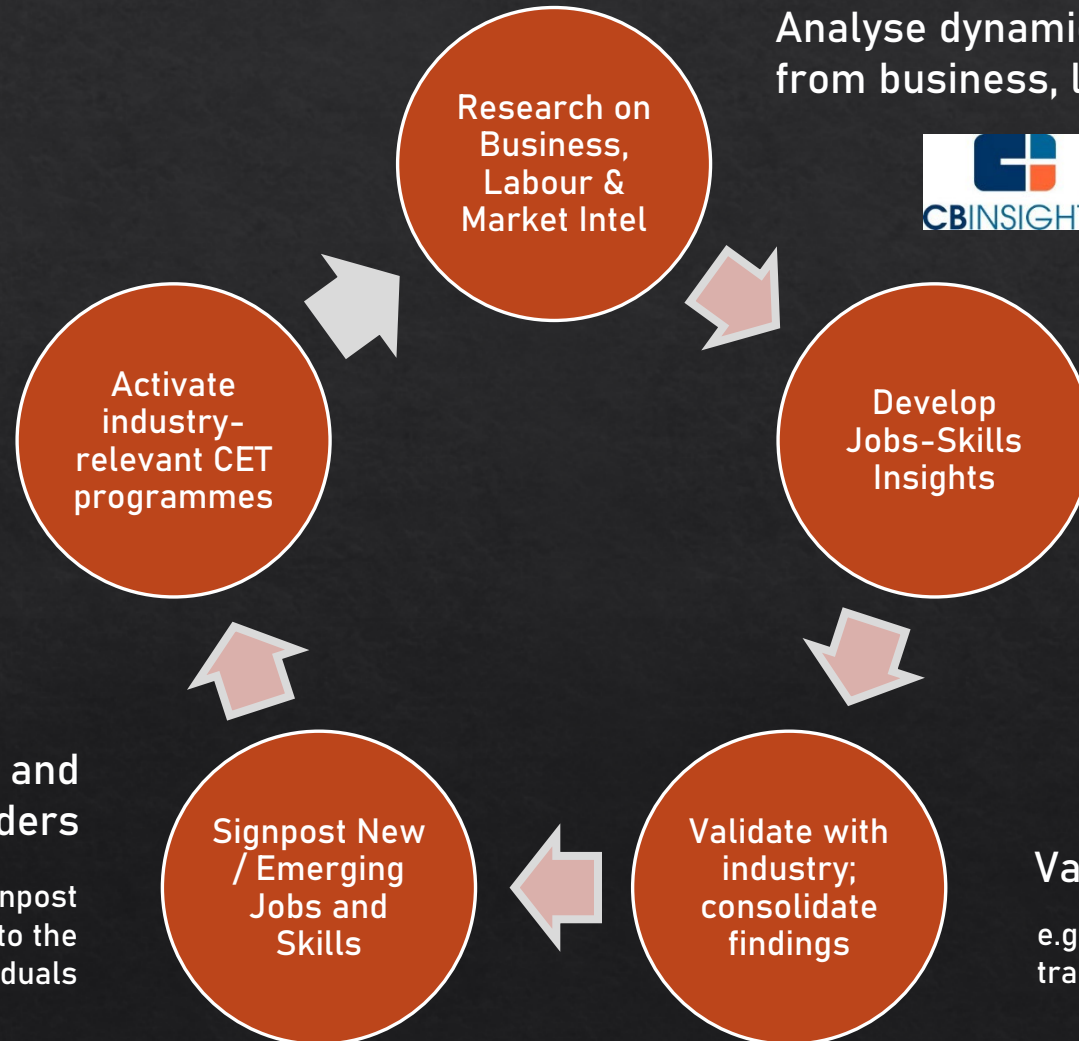
- Work with the wider training community to update course offerings or develop new ones and track course take-up
- Work with agencies to activate levers (e.g. incentives, regulations) for pre-emptive upskilling and reskilling



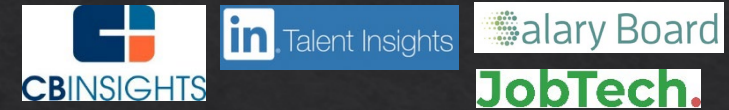
Signpost new/emerging jobs and skills to different stakeholders



- Work with multipliers to signpost new/emerging jobs and skills to the wider enterprises and individuals



Analyse dynamic intel on emerging jobs & skills from business, labour & market sources



Synthesize insights by:

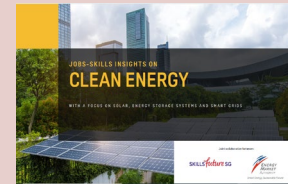
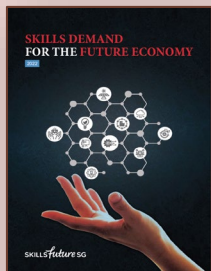
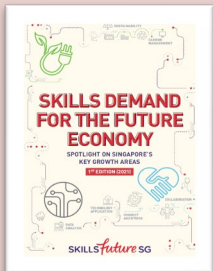
- Measuring current supply of skills captured in National JS Intel engine
- Analysing skills demand through job postings; Track fastest-growing jobs and skills locally and globally;
- Analysing top companies' hiring patterns and interview innovation-led firms to anticipate job content changes and skills demand

Validate insights with industry leaders

e.g. lead agencies, enterprises, service buyers, trade associations, unions, and training partners

Together with partners, SSG puts out regular and ad-hoc publications and data sets to enable individuals, enterprises and training providers to make informed decisions on jobs and skills related matters

Skills Demand for the Future Economy Report	Jobs-Skills Quarterly Insights	Thematic Jobs-Skills Insights	Jobs-Skills Data
<ul style="list-style-type: none"> Annual publication focusing on Green, Digital and Care Economies 2nd edition showcases skills application in specific economic and workforce segments (manufacturing, mid-career workers) 	<ul style="list-style-type: none"> Quarterly publication focusing on fast-moving jobs and skills and sectoral insights unpacked from Annual Report 1st edition on Training & Adult Education sector 	<ul style="list-style-type: none"> Ad-hoc and more frequent publications with bite-sized jobs and skills information Customisable to target specific stakeholder groups (individuals, enterprises, training providers) 	<ul style="list-style-type: none"> Data sets made publicly available to empower self-help Customised data sets to meet specific needs of stakeholder groups, including ECG Counsellors and Career Coaches



Emerging Domain	Title of Priority Skill	Description of Priority Skill	Demand Growth	Transferability	No. of Job Posts in 2021
1	AI, Data and Analytics	Analytical Method Validity Verify analytical method	47.8%	26	142
2	AI, Data and Analytics	Artificial Intelligence Apply algorithmic, statist	41.8%	760	22660
3	AI, Data and Analytics	Artificial Intelligence Establish and drive Artif	145.6%	20	45
4	AI, Data and Analytics	Business Data Analysis Implementing data anal	52.9%	104	779
5	AI, Data and Analytics	Business Insights Define and operationalis	59.3%	473	10482
6	AI, Data and Analytics	Computational Modelling Develop, test and ass	344.1%	34	438
7	AI, Data and Analytics	Computer Vision Techni Develop and deploy visu	86.2%	144	3416
8	AI, Data and Analytics	Data Analysis and Interp Extract meaningful patte	39.3%	204	1905
9	AI, Data and Analytics	Data Analytics System De Integrate the use of data	400.0%	5	25
10	AI, Data and Analytics	Data and Information Vi Combine communicatio	332.3%	102	26
11	AI, Data and Analytics	Data Collection and Anal Collect, extract and inter	100.1%	378	4730
12	AI, Data and Analytics	Data Collection and Prep Collect human resource	103.5%	110	1096
13	AI, Data and Analytics	Data Design Specify and create a dat	62.3%	232	7387
14	AI, Data and Analytics	Data Engineering Develop and implement	76.9%	691	23043
15	AI, Data and Analytics	Data Sharing Assess the value of data	17.0%	16	136
16	AI, Data and Analytics	Data Storytelling and Vis Combine data insights, d	321.7%	18	75
17	AI, Data and Analytics	Data Visualisation Implement contemporar	65.0%	468	8655
18	AI, Data and Analytics	Data mining and Model Establish and deploy dat	76.8%	88	1812
19	AI, Data and Analytics	Finance Business Partner Generate finance relat	126.8%	125	817
20	AI, Data and Analytics	Financial Analysis Analyse the financial stat	21.9%	365	8088
21	AI, Data and Analytics	Financial Modelling Develop financial model	26.4%	363	6932
22	AI, Data and Analytics	Financial Modelling Develop financial model	26.4%	363	6932

Individuals: Building capital for career versatility

Twining of
employment and
learning careers

Personal Assets:
Transformative &
Productive

Taking a longer term
view

Career-Learning
Guidance and Coaching

Enterprises: Leading skills-based hiring-learning-planning

Skills-based
Recruitment

Manage talent-skills
pipelines

Provide workplace
learning

Skills-based Career
Development

Education & Training Partners: Delivering outcome-based CET interventions

Supporting enterprise transformation

Supporting individual career mobility

Partnering workplaces for learning applications

Innovating adult learning

Thank You

SkillsFuture Singapore (SSG) drives and coordinates the implementation of the national SkillsFuture movement, promotes a culture of lifelong learning and strengthens the ecosystem of training and adult education in Singapore. Through a holistic suite of national SkillsFuture initiatives, SSG enables Singaporeans to take charge of their learning journey in their pursuit of skills mastery. SSG also works with key stakeholders to ensure that students and adults have access to high quality and industry-relevant training that meet the demands of different sectors of the economy for an innovative and productive workforce. For more information, visit <https://www.ssg-wsg.gov.sg>.

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