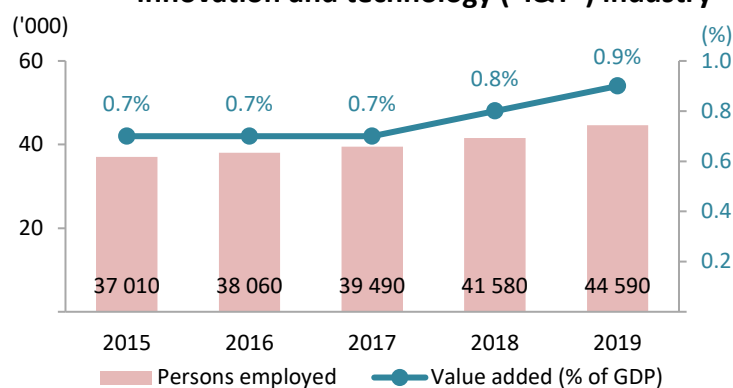




## Innovation and technology talent

**Figure 1 – GDP contribution and employment of innovation and technology ("I&T") industry**

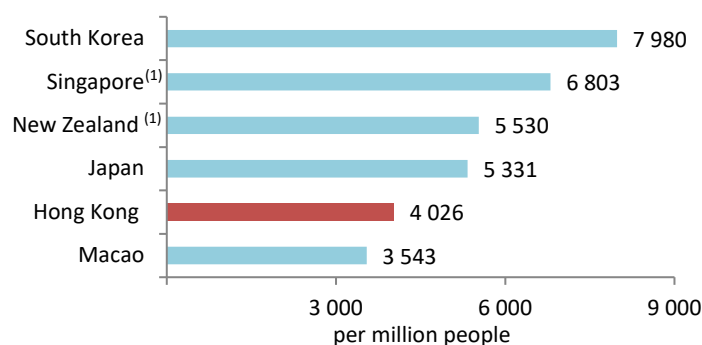


**Figure 2 – Manpower requirement of I&T and selected industries, 2017 and 2027**

	Industries	2017 <sup>(1)</sup> ('000)	2027 ('000)	Change ('000)	Annual growth
Key industries	Trading & logistics	739.2	669.6	-69.6	-1.0%
	Professional & producer services	555.6	661.7	+106.1	+1.8%
	Tourism	265.4	284.0	+18.7	+0.7%
	Financial services	264.0	294.6	+30.5	+1.1%
Emerging industries	Cultural & creative	217.8	238.0	+20.2	+0.9%
	Information technology	72.3	90.0	+17.8	+2.2%
	Environmental	45.2	51.5	+6.3	+1.3%
	Innovation & technology	38.0	57.6	+19.6	+4.3%
	Testing & certification	14.5	16.6	+2.1	+1.3%

Note: (1) Data is from LWB's "Report on Manpower Projection to 2027", which may differ from annual employment statistics compiled by C&SD.

**Figure 3 – Research and development personnel in advanced Asia-Pacific economies, 2018**



Note: (1) 2017 figures.

## Highlights

- The first Policy Address of the current-term Government, delivered in October 2017, announced the policy objective to make Hong Kong a global hub of innovation and technology ("I&T") to drive economic growth, with injection of over HK\$100 billion since then. However, the economic contribution of the I&T industry is apparently on the low side right now, with its value added amounting to HK\$23.4 billion or 0.9% of Gross Domestic Product ("GDP") only in 2019, just up from 0.7% in 2015 (**Figure 1**). In terms of persons employed in the I&T industry in 2015-2019, they increased by 20% to 44 590, with its share in total employment edging up from 1.0% to 1.2%, according to Census and Statistics Department ("C&SD").
- Technology talent plays a crucial part in I&T development. According to projection made by the Labour and Welfare Bureau ("LWB") in 2019, manpower requirement of the I&T industry is expected to grow at an average annual rate of 4.3% in the next few years, reaching 57 600 by 2027 (**Figure 2**). Its manpower requirement is also expected to be the fastest growing among key and emerging industries in Hong Kong.
- In spite of strong demand, the supply of research and development ("R&D") manpower in Hong Kong has been lagging behind major advanced places in Asia-Pacific. According to the World Bank, there were only 4 026 R&D personnel per million people in Hong Kong in 2018, noticeably below major regional competitors like Singapore, South Korea and Japan (**Figure 3**). To tackle this talent crunch, the Government has strengthened university education in STEM (i.e. Science, Technology, Engineering and Mathematics), such as sponsoring over 1 600 university students enrolled in STEM programmes to take part in I&T internships in the summer of 2020.

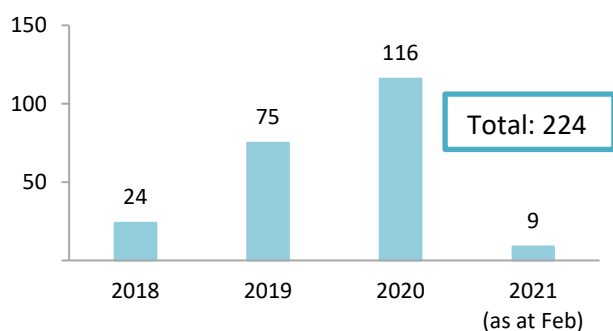
**Figure 4 – Applications approved under Research Talent Hub<sup>(1)</sup>**

Year	Bachelor's/ master's (formerly RP)	Doctorate (formerly PH)	Total approved applications
2018	723 (71%)	299 (29%)	1 022 (100%)
2019	960 (63%)	555 (37%)	1 515 (100%)
2020	681 (54%)	586 (46%)	1 267 (100%)
2021 (as at Feb)	121 (52%)	113 (48%)	234 (100%)
<b>Total<sup>(2)</sup></b>	<b>5 488</b>	<b>1 553</b>	<b>7 041</b>

Notes: (1) Applicants must be permanent residents or legally permitted to work in Hong Kong.

(2) It includes data from 2004 to February 2021, during which a total of 3 003 RP applications were approved in 2004-2017, but a breakdown by years is not available.

**Figure 5 – Persons approved for entry under Technology Talent Admission Scheme ("TechTAS"), 2018-2021**



**Figure 6 – Breakdown statistics on entry approval under TechTAS, 2018-2021**

Places of origin	Approval
Mainland	147 (65.6%)
Rest of Asia-Pacific	57 (25.4%)
Europe	11 (4.9%)
America	9 (4.0%)
<b>Total</b>	<b>224 (100%)</b>

Monthly salary	Percentage
<HK\$20,000	1.3%
HK\$20,000-HK\$39,999	52.7%
HK\$40,000-HK\$79,999	34.8%
>HK\$80,000	11.2%

### Highlights

- To encourage more graduates to engage in R&D work, the Government has launched the Research Talent Hub ("RTH"). Rebranded in 2020, RTH merged the previous Researcher Programme ("RP") and Postdoctoral Hub ("PH") schemes, providing funding support for each eligible technology firm to recruit at most four local graduates from STEM-related disciplines for a period up to three years. As at February 2021, some 7 000 applications were approved under RTH, with a funding cost of HK\$2.5 billion. While there were more approved applications from bachelor's or master's degree holders, the share of doctoral applicants has exhibited a steady uptrend (Figure 4). Each approved applicant receives a monthly allowance of HK\$18,000-HK\$32,000.
- Talent from other places can also assist I&T development in Hong Kong. In June 2018, the Government launched the Technology Talent Admission Scheme ("TechTAS") on a pilot basis, allowing eligible technology firms to hire global I&T talent through streamlined visa procedures, subject to an annual quota of 100 per firm. TechTAS was extended in early 2020 to cover companies outside Hong Kong Science and Technology Parks Corporation and Cyberport. In 2020, there were 116 visa applications approved under TechTAS, representing a 55% increase over 2019 (Figure 5). At present, overseas talent on artificial intelligence and financial technologies are in keen demand. Despite an increase in the number of admissions over the past two years, there are emerging concerns that the COVID-19 pandemic and the economic setback might hamper admission of such talent in the near future.
- Analyzed by places of origin, two-thirds of the approved applicants under TechTAS were from the Mainland, one-fourth from Asia-Pacific and less than one-tenth from Europe/America (Figure 6). As for monthly salary, about half earned HK\$20,000-HK\$39,999 and one-third earned HK\$40,000-HK\$79,999. To increase the appeal of TechTAS to global talent, the Government announced an expansion of the scheme in January 2020 to increase the number of eligible technology areas from seven to 13, including 5G communications and digital entertainment.

Data sources: Latest figures from Census and Statistics Department, Innovation and Technology Bureau, Labour and Welfare Bureau, and World Bank.

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