Key Talent Cultivation and Recruitment Program (2021-2024)

Program approved by the Executive Yuan per document No. 1100010709 on May 6, 2021

Analysis of Current Situation

1. There is a growing shortage of STEM-related talent, with an urgent need to focus on cultivating digitally-skilled local talent

According to the results of the job vacancy and employment status surveys conducted by the Executive Yuan's Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan has been experiencing a growing shortage of professional talent in the industrial and service sectors, increasing from 32,000 people in 2016 to 40,000 in 2020. In 2020, this shortage accounted for 17.8% of the total manpower deficit, and consisted mainly of a shortage of 25,000 people, 63.5% of the deficit, in STEM-related (science, technology, engineering and mathematics, STEM) occupations such as information technology, science, statistics and engineering.

The development of the digital economy is generating rapid growth in demand for professional talent in Taiwan, particularly for STEM-related talent required for Taiwan's industrial development. Hence, the government needs to continuously encourage students and people in work to learn digital-related skills, and needs to support co-cultivation of talent by industry and academia, in order to provide a plenitude of domestic digital talent, and so raise our country's industrial competitiveness.

2. The competition for international talent and the pressing domestic demand for professional talent make it urgent to actively recruit international key talent

The transnational movement of talent and global deployment of enterprises have become the norm, and countries around the world are actively recruiting the talent needed for national development. Since the Act for the Recruitment and Employment of Foreign Professionals, aimed at building a friendly environment for international talent to come to work and live in Taiwan, came into force in February 2018, Employment Gold Cards had been issued to 2,607 special foreign professionals up to the end of April 2021, and the number of foreign professionals

employed in Taiwan had reached 42,520 at the end of April 2021.

Taking account of our country's urgent talent needs for developing the 5+2 innovative industries and six core strategic industries, and how changes in talent flows stemming from the post-pandemic reorganization of global supply chains will present Taiwan with a favorable opportunity for recruiting international talent, the government must grasp this opportunity to strengthen recruitment of key talent from overseas.

3. Domestic talent lacks international competitiveness, and urgently needs heightened English proficiency and international vision

As indicated by the IMD World Talent Ranking, although Taiwan has shown an improvement in language skills and international experience, it still has room for improvement. In respect of language skills, its 2020 ranking was up by 7 places to 33^{rd} after hovering around 40^{th} from 2016 to 2019. In respect of international experience, it has improved in each of the last two years, rising two places to 34^{th} in 2020.

As it faces the trend of international competition for talent, Taiwan possesses a very strong talent pool, but still needs to enhance its talent pool's English skills as an essential requirement for advancing internationally. Therefore, in addition to promoting the Bilingual Nation Policy, the government also needs to bolster contacts and exchanges between domestic and international talent, to enhance the international experience of our homegrown talent, and enable them to become more internationally competitive.

Program Objectives and Strategic Framework

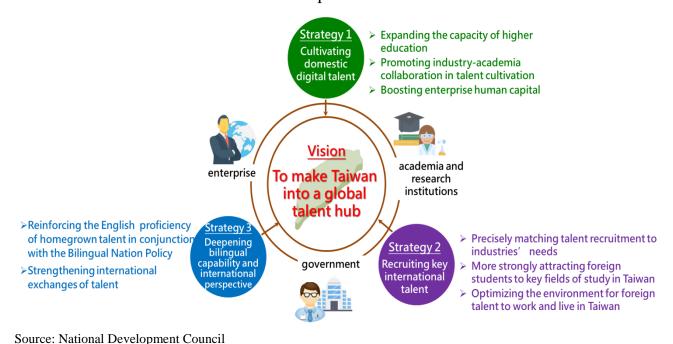
■ Vision: To make Taiwan into a global talent hub

This program maps out three leading strategies, eight main fronts, and 21 concrete measures for fostering and recruiting talent needed for national development, to be carried out through cooperation among enterprise, government, academia and research institutions, targeted at enhancing the competitiveness of Taiwan's industrial sector and realizing the vision of making Taiwan into a global

talent hub.

■ Objectives

- 1. To cultivate domestic digital talent and build up high-quality human capital: Speed up the cultivation of talent needed for the digital transformation of industries, build digital competitiveness, and effectively respond to industries' urgent demand for digital technology talent.
- 2. To recruit key international talent and create an international talent hub: Vigorously develop and implement means for globally recruiting and retaining talent, to bring together elite talent in various fields from around the world, to inject new impetus into the transformation, upgrading and internationalized development of Taiwan's industries, and make Taiwan into a key power of the global economy.
- **3.** To enhance Taiwan's talent competitiveness by deepening homegrown talent's bilingual ability and international vision: Promote the internationalization of higher education, strengthen the English proficiency of domestic talent, and increase opportunities for participating in international exchanges, to mold an internationalized mindset in Taiwan's professional talent.



Graph: The Strategic Framework Key Talent Cultivation and Recruitment Program

Specific Measures

■ Strategy 1: Cultivating domestic digital talent

- 1. Expanding the capacity of higher education
 - Gradually expanding the annual enrollment quotas of STEM departments and graduate schools: Expand 10-15% the enrollment quotas of STEM departments and graduate schools in fields related to ICT, semiconductors, AI, machinery, and information security. (Ministry of Education)
 - Relaxing student-teacher ratio requirements for STEM departments and graduate schools: On a special case basis, relax the student-teacher ratio in STEM-field departments and graduate schools, adding the qualitative indicators for teaching and research, not subject to the current student-teacher ratio requirements. (Ministry of Education)
 - Expanding the faculty and teaching capacity of STEM departments and graduate schools: On a special case basis, expand information security faculty, and give guidance to the cultivation of STEM-field talent in universities and colleges. (Ministry of Education)
 - Encouraging non-ICT departments and graduate schools to establish cross-disciplinary digital technology micro-courses: Include as a key performance indicator (KPI) of the Higher Education Sprout Project, to encourage all universities and colleges to establish digital technology micro-courses. (Ministry of Education)

2. Promoting industry-academia collaboration in talent cultivation

• Pushing through legislation to establish national academies for key fields of research: Promote passage of the Statute for Innovation in Industry-Academia Collaboration and Talent Cultivation in National Key Fields, to provide the legal basis for the establishment of national research academies in key fields, with funding support for their long-term operation jointly provided by government and industry, for collaboration by industry, government and academia in

fostering high-grade tech talent. (Ministry of Education)

• Strengthening talent cultivation for key industries: Implement programs such as for training high-grade talent for key industries, for fostering doctoral R&D talent through industry-academia cooperation, for industry-oriented master's degrees, and for cultivating skills for commercialization in the biomedical industry, and establish regional bases for cultivating industrial talent and technologies, while at the same time establishing special programs for professional talent in different disciplines according to enterprise needs, and encouraging enterprises to participate in fostering doctoral research students, to strengthen talent cultivation for key industries. (Ministry of Education, Ministry of Science & Technology)

3. Boosting enterprise human capital

- Refining the application of Occupational Competency Standard(OCS), and enhancing the digital industrial talent skills assessment: Harmonize and integrate digital talent OCS, implement measures to guide the application of industry-related OCS, and promote the diverse application of digital OCS in different spheres of activity; push for enterprises to self-invest in cultivating Industry Professional Assessment System(iPAS) digital practitioners, and give priority to employing them and raising their pay; and encourage technical and vocational schools to establish test venues to match MOEA promotion of digital industry-related iPAS appraisal. (Ministry of Labor, Ministry of Economic Affairs, Ministry of Education)
- Prompting enterprises to self-invest in conducting staff training: Implement subsidies for enterprises to conduct staff training programs, and encourage enterprises to plan and conduct digital skills related training programs for their employees. (Ministry of Labor)

■ Strategy 2: Recruiting key international talent

1. Precisely matching talent recruitment to industries' needs

- Inventorizing important industries' demand for key international talent, and carrying out special-case talent recruitment projects: Annually conduct a survey to assess the next three years' talent needs of the major industries targeted by the plans for promoting the 5+2 Innovative Industries and the Six Core Strategic Industries, and inventorize their demand for recruiting overseas talent; integrate and assist efforts by central government agencies to conduct global recruitment of international key talent as needed. (National Development Council)
- Strengthen the recruitment of international research talent to match the development needs of important industries: Carry out the Leaders in Future Trends (LIFT) 2.0 Program and the Yushan Scholar Program, to strengthen the recruitment of key international teaching and research talent. (Ministry of Science & Technology, Ministry of Education)
- Optimize the national talent recruitment portal and related platforms to create a national brand image: Continue to enhance the Contact Taiwan website, to perfect the functions of the national-level talent recruitment portal; establish a Taiwan Employment Gold Card Office, to provide one-stop service for high-grade key talent coming to work and live in Taiwan. (Ministry of Economic Affairs, National Development Council)

2. More strongly attracting foreign students to key fields of study in Taiwan

- Expanding the enrollment of students from New Southbound countries, Hong Kong and Macau, and of overseas compatriot and foreign students, in key-field departments, and increasing related incentives: Implement the Plan for Strengthening Linkages within ASEAN and South Asian Countries, to expand the enrollment of international students in key fields of study; and implement Taiwan Experience Education Program (TEEP) @AsiaPlus to encourage more international students to participate in short-term professional internship. (Ministry of Education)
- Expanding the enrollment of international students in Taiwan's Joint Degree

programs and industry-oriented master's and doctoral programs in departments related to key fields of study: Encourage schools to launch and expand joint degree programs in departments related to key fields of study, and recruit international students to enroll in industry-oriented master's programs and implement Industry-Academia Cooperative PhD Project in such departments. (Ministry of Education)

3. Optimizing the environment for foreign talent to work and live in Taiwan

- Improving the legal framework for work and residency of foreigners in Taiwan: Push forward the process to amend the Act for the Recruitment and Employment of Foreign Professionals; relax regulations pertaining to the employment of foreign professionals in the Six Core Strategic Industries, to allow employers to hire foreigners for performing specialized or technical work without the limitation of capital or turnover thresholds. (National Development Council, Ministry of Labor)
- Optimizing and internationalizing the startup ecology, to attract entrepreneurial talent to come to Taiwan: Establish international startup clusters, to conduct international startup exchange events and draw international entrepreneurs or entrepreneurial talent to Taiwan; bring international innovation teams to Taiwan, to link into Taiwan's startup ecology; create an international base for young tech entrepreneurs, to attract international teams to come to pursue development in Taiwan; assist startup talent through the various procedures for applying to come to Taiwan, and provide follow-up services for their various living needs. (Ministry of Economic Affairs, Ministry of Science & Technology, National Development Council)
- Construct a sufficient and satisfactory education environment to meet the educational needs of the children of overseas talent coming to Taiwan:

 Review and discuss the need for revising laws and regulations pertaining to schooling for the children of foreign nationals in Taiwan (the Regulations Regarding International Students Undertaking Studies in Taiwan and the

Regulations Regarding Study and Counseling Assistance for Overseas Chinese Students in Taiwan) and the sound enforcement of the regulations; and continue setting up additional bilingual classes (departments) to meet the educational needs of the children of overseas talent coming to Taiwan. (Ministry of Education)

■ Strategy 3: Deepening bilingual capability and international perspective

- 1. Reinforcing the English proficiency of homegrown talent in conjunction with the Bilingual Nation Policy
 - Promoting more use of English in university teaching, and increasing English-taught courses: Encourage and assist universities and colleges to establish beacon bilingual schools or the professional domains of beacon bilingual colleges, to increase the proportion of English used in writing research reports and teaching. (Ministry of Education)
 - Strengthening the recruitment of teachers and researchers from English-speaking countries: Boost the recruitment of foreign teachers and researchers who are native speakers of English, by offering international levels of salary and supplementing hiring quotas. (Ministry of Education)

2. Strengthening international exchanges of talent

- Encouraging teachers, students and high-level talent to go overseas to take part in research, take up internships, undertake training, or study for degrees, and increasing related subsidies/quotas: Increase the amount of grants for our country's students to go overseas for research and studies, internships, or advanced degrees in Six Core Strategic Industries; subsidize scientific and technical personnel to go abroad for short-term research and doctoral research; and carry out the Global Trade Pioneer Project to support internships in emerging markets. (Ministry of Education, Ministry of Science & Technology, Ministry of Economic Affairs)
- Promoting cooperation between academia and industry in planning

international forums, enterprise-tailored lectures, or other such training exchanges for high-level talent: Conduct research-related industry-academia exchange activities; subsidize the holding of international academic and educational exchange activities; and conduct offshore wind power engineering talent cultivation in the Kaohsiung Maritime Technology Innovation Center. (Ministry of Science & Technology, Ministry of Education, Ministry of Economic Affairs)

• Promoting training and international connections for talent in specialized fields of expertise: Conduct International Business Administration Program and industry-related English classes, arrange English training courses and international seminars for finance professionals, and enhance the English skills and professional competitiveness of doctors in specialist fields. (Ministry of Economic Affairs, Financial Supervisory Commission, Ministry of Health & Welfare)

Expected Benefits

- 1. Amply supplying the domestic and foreign elite talent needed by Taiwan's industries, to propel industrial growth, spur economic development, and raise the nation's overall competitiveness.
- 2. Increasing both the quality and quantity of digital talent cultivated by higher education, combining resources of industry and academia to co-cultivate professional talent needed for developing the digital economy, and guiding enterprise investment in talent grooming, to strengthen our people's digital skills, create competitive advantages and employment opportunities, and drive the digital transformation of industries.
- 3. Ensuring that the international talent needed by Taiwan can come and stay, supplying the key international talent needed for the development of our country's important industries, helping promote the upgrading and transformation of industries, giving a boost to enterprise investment, adding vigor to job creation, and

- sustaining economic growth.
- 4. Enhancing the competitiveness of Taiwan's domestic talent by raising their professional bilingual skills, strengthening integration with the world, building an internationalized environment, and supporting our promising talent to go overseas to gain knowledge and experience that they can bring back for beneficial utilization in Taiwan.