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PLAN ANNOUNCED TO CULTIVATE A MILLION-STRONG DIGITAL TALENT

- ☐ The Government has developed a roadmap for digital talent cultivation with an aim to produce a million-strong, highly-skilled, digital-savvy workers from 2022 to 2026, in a bid to expand opportunity of digital education for the Korean people.
- ☐ In accordance with the roadmap, all levels of digital workers will be fostered, namely from technology professionals to multidisciplinary workers to tech-savvy individuals, and relevant policies will be devised and implemented across all ministries.
 - As a result, the general public is expected to develop their digital skills in alignment with their needs by expanding ICT education at the primary and secondary educational levels to make digital education more familiar to future generations.
- ☐ The Government has gone through extensive consultation with various stakeholders, including businesses, schools and experts to come up with a comprehensive roadmap.
 - As a result, the roadmap was announced in collaboration of relevant

ministries on August 22 at the cabinet meeting. This roadmap puts forth the plan for implementation for the next five years that the government, education sector and industries will focus their strengths on.

- With the rapid advancement of digital technology, the demand for digital workers is likely to explode across all sectors, which calls for an urgent national level support, and the education sector is also requested to transform itself to match digital-friendly trends.
- The size of the digital talent pool is expected to be as large as 99,000 workers (17,000 master's and doctoral degree workers) as of 2021, and for the next five years (2022-2026), the pool will grow to 738,000 workers (90,000 elementary, 520,000 intermediary, and 128,000 advanced level workers).
 - In particular, not only the digital industry, but also other industries and social sectors, digital workers are in great demand, which may increase even further in the foreseeable future.
- Even after mandating software education in 2018, the education and industrial sectors constantly raise the necessity of emphasizing digital education ahead of the upcoming digital era.
- In response to the introduction of such policies, relevant policy tasks are developed to allow the public, private and academic sectors to foster skilled workers to be able to excel in a wide range of fields, from everyday life to leading-edge digital industry.
 - The policies will be implemented in the following ways: 1) one million digital workers of all levels will be cultivated; 2) digital education will be expanded to enhance the public's familiarity to digital tools and capabilities; 3) the education system will completely shift to a digital-based one to facilitate the task of digital worker cultivation.

① Highly sophisticated digital professionals

- As outlined in the plan for cultivating semiconductor talent on July 19, contract-to-hire college courses and the initiatives to ease regulations on higher education are also included in this roadmap.
- "Digital innovation-sharing colleges" (21 fields of studies by 2026), "software-focused colleges" (100 colleges are expected to be established by 2027), and "new industry-focused junior colleges" (21 fields of studies by 2026) will be established to foster leading digital colleges and top-notch digital workers.
- The fourth phase of the "Brain Korea 21" will help nurture a new pool of researchers, and graduate schools will be expanded to cover artificial intelligence, extended reality (and metaverse), cyber security and big data.
- The roadmap also outlines plans to support research in ICT and convergence by specializing in research infrastructure, and the "university ICT research center" will be reorganized to prioritize digital strategic skills (80 fields of studies by 2027).
- Schools for the gifted and science high schools will offer software computing and AI-focused curriculum (on a pilot basis in 2022), and more classes will be dedicated to cater to the needs of gifted students (70 classes for the gifted in 2025). Meister high schools will also expand (from six schools across the country to one or two schools per locality), and male students during their service in the military will also be able to continue to develop their digital skills by expanding the positions of digital fields in the military.

2 Talent who apply digital skills to their domain knowledge

- To support the multidisciplinary convergence of digital skills with various fields of studies such as humanities, intensive courses (so-called "boot camp") that connect universities and the private sector will be introduced in 2023, and universities will be innovated by flexibly operating their academic programs to upgrade their multidisciplinary functions.

- Excelling universities and colleges will be designated as "DX-academies", which are educational institutions supporting career transition in every locality, and retirees with extensive career experience will be advanced into digital experts, and re-skilling and up-skilling of digital training will be carried out for incumbent workers.
- Various digital curricula will be offered, putting businesses in the leading position, and businesses with their own digital curriculum will be accredited to join the "digital leaders club," entitled to receive a number of benefits including support for infrastructure and R&D.
- High-tech digital vocational training courses will be established in polytechnics (1,230 students in 2022), and private-led vocational training, the so-called K-Digital Training, will be further expanded (28,500 students in 2022).

3 Talent who tap into digital skills in everyday life

- A program supporting innovation of higher education will help bring autonomous innovation in colleges (cultural education, AI tutoring, etc.), as well as leading-edge courses on K-MOOC, Korean Massive Open Online Courses (138 courses in 2022).
- Autonomous learning communities such as software computing will be stimulated (2023 onward), especially soldiers will be supported to engage in self-development during their service by providing customized digital learning opportunities, so that they can get a job easily after they complete their service (50,000 people from 2022 to 2026).

◆ Expected Outcome ◆

- ☐ Class hours will be expanded, ICT elective subjects will be introduced in elementary schools, more subjects authorized by school principal will be offered in middle and high schools, computer language (coding) education will

become mandatory in elementary and middle schools, and software computing and AI education will be stimulated to allow students to advance their digital skills within the public education system.

- AI-focused high schools (180 schools by 2026), digital camps during school vacation (or after school), and joint curriculum at online high schools will all be expanded and supported to offer educational opportunities more broadly, going beyond schools and regions.
- Adult digital skills survey will be conducted once in every three years from 2024, literacy education will be strengthened, digital troubleshooting centers will offer digital education to students and residents (2023 onward), and educationally marginalized schools (1,800 schools in rural areas) will have digital tutors dispatched to their schools (2022 onward).
- "Digital badge" will be used to prove digital education, experience and qualifications, and the "talent ladder" system, which includes career counseling, priority selection for follow-up programs), will be established to support systematic growth of digital talent.
- Regulations will be eased to utilize various teachers of ICT in ways that reflect the number of required teachers from a mid- to long-term perspective, as well as to use private sector professionals (incumbent and retired workers, temporary teachers and instructors of non-formal educational institutions, foreign faculty, etc.) to serve as college faculty, devise support measures, and establish databases.
- To improve digital convergence skills and resolve ICT teacher shortage, more teachers will be encouraged to study ICT as a minor, and AI-driven training will be expanded (7,000 teachers by 2027), while college faculty will be given opportunities to go on long-term training both home and abroad (2024).
- Teachers will need to have a certain level of digital skills to meet its requirements as part of their initial training, and digital skill development system (AIEDAP, AI Education Alliance & Policy Lab) will be established for

operation from 2022.

- ☐ AI-based tailored learning system will be supported from 2024, and digital textbooks and content (including AR, VR, Metaverse) will continuously be distributed.
- ☐ "AI Education Promotion Act" and "Ethical Standard for the Use of AI in Education" will be developed, while digital-based integrated platform of teaching and learning and My Portfolio (digital badge) will be established, and smart schools will be built. Not only that, students will continue to be given tablets or laptops for their digital education.
- ☐ A professional agency will be designated to take charge of overseeing digital talent cultivation policies and relevant programs, while digital talent alliance will be created to strengthen the network between the private and public sector. Policies will be introduced to actively tap into outstanding international students and foreign talent.
- ☐ Vice Minister Jang Sang-yoon said, "The government will offer administrative and financial support to help workers from all walks of life be equipped with digital skills, while colleges, businesses and the private sector as a whole will all be included in this endeavor. All citizens will have digital skills as basic skills in the upcoming digital era throughout their life cycle, and digital-friendly talent will be cultivated within the public education system."