Seeds
For the Future

NURTURING **TALENT**

VOICES FROM HUAWEI'S GLOBAL SKILLS DEVELOPMENT PROGRAMS

ISSUE
No. 1

HUAWEI

CONTENT

Introduction

Huawei is committed to talent development. Over the years, Huawei's global ICT talent development efforts have benefited as many as 2.2 million professionals worldwide. We have upskilled industry and public sector professionals, nurtured leadership, inspired and challenged students, and taught basic digital skills in numerous communities on different continents.

Talent development has an immense impact, life-changing even, on the individuals who attend our technology competitions and digital skills training programs, or who benefit from our scholarships. In the next pages, we will share stories of people who participated in our classes and internships in recent years.
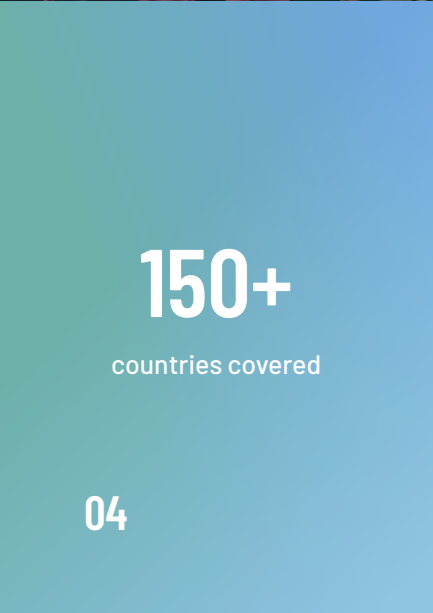
2.2M

Digital professionals benefited cumulatively

0.5M

People added to the digital talent pool by 2026 in APAC

150+

countries covered

1971

Huawei ICT Academies established globally

Our philosophy

Our training programs target different groups falling in four broad categories: Government officials and public administrators, science and technology students, ICT professionals, and contestants in tech competitions. As we train people, we constantly keep sustainability in mind. We call our approach SEEDS for Surpass, Exploration, Employability, Daring to challenge, and Sustainability.

SURPASS

With Surpass, we aim to foster organizational leadership. We offer a number of programs to help participants nurture this trait. This currently includes: European Leadership Academy, Huawei ASEAN Academy, and our LEAP program in sub-Saharan Africa. Among other skills, graduates become proficient at evaluating, procuring, and administering ICT technologies.

EXPLORATION

With well-established programs like ICT Academy and Seeds for the Future, we help thousands of students worldwide every year explore new possible lifepaths and strengthen their digital skills through hands-on training with industry professionals. During training, we encourage participants to create innovative solutions that address the U.N. Sustainable Development Goals.

EMPLOYABILITY

We provide education to ICT professionals so that they can keep their skills up to date and remain competitive in the job market. The programs include Cloud Developers Institute and Huawei Developers. One particular thrust of Employability is "Train the Trainers," which focuses on keeping the knowledge of ICT instructors up to date.

DARING TO CHALLENGE

We organize and sponsor a wide range of tech competitions throughout the world. They provide opportunities for contestants to test their skills in coding, algorithms, math, and engineering to solve real industry problems. One example is Tech Arena. Launched in 2022, Huawei's Tech Arena competitions are sponsored and designed by Huawei's worldwide labs in partnership with top universities to give students from around the world new opportunities to experience and learn how to solve real-world problems.

SUSTAINABILITY

We believe that technology can address environmental and social challenges. This is the theme behind Tech4Good, a competition designed to help young adults explore how technology can address social issues. To encourage the participation of more women in the tech industry, we hold numerous Women in Tech activities around the world. And to provide digital skills to those who lack them, Digital Bus travels from community to community.

SEEDS

Surpass

With Surpass, we aim to foster organizational leadership. We offer a number of programs to help participants nurture this trait. This currently includes: European Leadership Academy, Huawei ASEAN Academy, and our LEAP program in sub-Saharan Africa. Among other skills, graduates become proficient at evaluating, procuring, and administering ICT technologies.

EUROPEAN LEADERSHIP ACADEMY

LEAP — LEADERSHIP EMPLOYABILITY ADVANCEMENT POSSIBILITY

HUAWEI ASEAN ACADEMY

Empowering women from rural Europe to lead a digital transformation

While relatively few women worldwide choose technology as a career, this doesn't mean that they cannot fully participate, or even lead the transition to a digital economy. Huawei organizes a range of activities to inform and inspire women about the opportunities that digitalization opens up.

In 2022, for the first time, we reached out to rural women in the EU. We launched the Women's Academy for Rural Innovation. Fifteen women from rural areas were welcomed to Spain in October for a week-long program of masterclasses, debates and workshops with top experts. They explored a myriad of insightful subjects, from fostering rural development and nature's potential for value creation through to establishing SMEs and managing start-ups.

Women make up half of the population. But they still face structural challenges that unfairly prevent many of them from unleashing their full potential. In rural areas, women face a double hurdle: in addition to the gender gap, they also need to overcome the urban-rural divide in order to progress. Huawei aims to recognize the immense potential of female talent and to proactively support it, empowering women to lead the tech revolution.

Scan QR code to find out more

SEEDS

Exploration

With well-established programs like ICT Academy and Seeds for the Future, we help thousands of students worldwide every year explore new possible lifepaths and strengthen their digital skills through hands-on training with industry professionals. During training, we encourage participants to create innovative solutions that address the U.N. Sustainable Development Goals.

HUAWEI ICT Academy

Seeds For The Future

A teenager harnesses ICT to help his mom cope with hearing loss

Vietnam's Nguyen Quoc Hung developed a virtual interpreter to help the hearing impaired. Powered by AI, the technology converts speech to text, and sign language to speech.

Quoc Hung led a project team at Tech4Good, a tech training program for youths. An offshoot of Seeds for the Future, Tech4Good challenges participants to identify a social issue that could be addressed using ICT. Quoc Hung thought of his mother, who had been experiencing difficulties communicating with others after an accident deprived her of her sense of hearing.
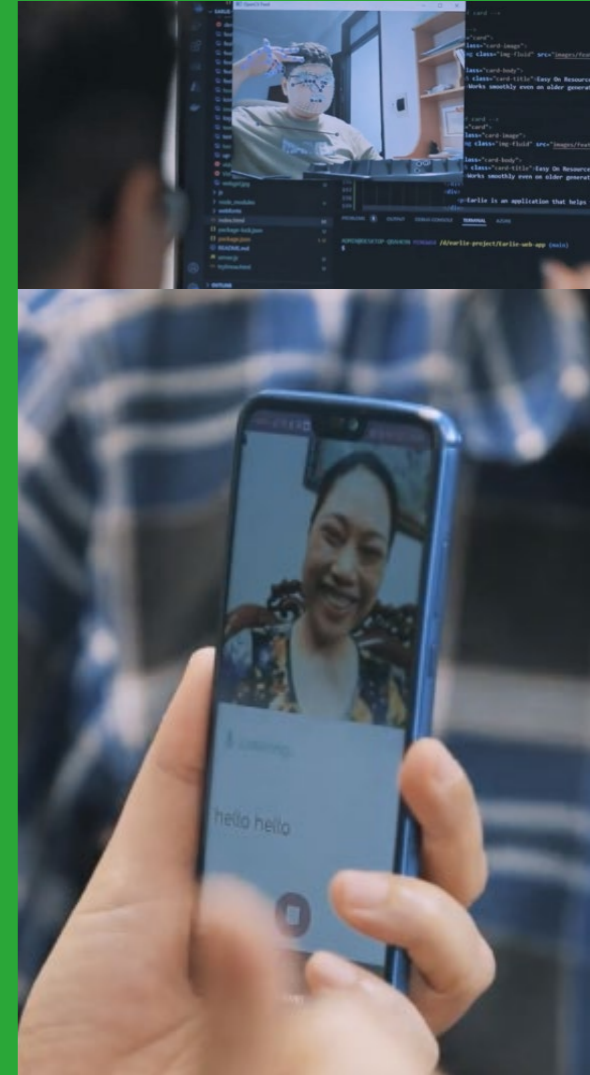
" When my mom lost her hearing, we had to hire a sign language translator," Quoc Hung recalls. " It was expensive and time-consuming. I had the idea to make an app with gesture translation, but I was not equipped with the right digital skills to turn the idea into reality."

His enrollment in the Seeds program pushed him over the line. "I met many experts in coding and design, got great ideas from mentors on business and tech, and learned a lot about AI and 5G," he says.

Scan QR code to find out more

Team ProRegio (Sustainability track): Connecting food retailers and small producers within a region. This promotes local agriculture and reduces carbon emissions caused by shipping.

FOUR GERMAN

STARTUP IDEAS

Team Eden (Metaverse track): This Generation Z team uses "metaverse" products to help senior generation build virtual financial services.

Team SMOUVED (Mobility track): their business idea is about intelligent route guidance, which optimizes the combination of various transportation modes.

THAT ROCK

Team TailorMed (Sustainability track): TailorMed team hopes to launch a cloud and data-driven platform to provide personalized drug dose recommendations for Chinese patients and their caretakers.

Together with media partner Handelsblatt Media Group and the city of Düsseldorf, Huawei offered the Digital Seeds program to 200 students in Germany and other German-speaking countries in 2022. The goal was to nurture entrepreneurship and digital thinking in young entrepreneurs-to-be.

33 teams developed start-up ideas and created detailed business plans in the fields of mobility, sustainability, and the metaverse. After four months of hectic training and self-

practice, 15 teams (five from each of the three tracks) were awarded the chance to make their final pitch in August 2022. The nine winning teams earned the chance to visit China for further training on how to transform innovative thinking into profitable businesses. ✍

Scan QR code to find out more

Largest-ever regional Seeds for the Future Program in Asia-Pacific

120 outstanding students from 16 countries in Asia-Pacific enjoyed a cultural tour during APAC Seeds for the Future, held in Thailand in August 2022. Here, they are at the Temple of the Emerald Buddha in Bangkok.

Seeds students in Bangkok at the UN's Economic and Social Commission for Asia in August 2022.

August 2022 marked the first time that Asia-Pacific Seeds for the Future took place after Huawei and the ASEAN Foundation signed an MoU in November 2021 on making it bigger and better. More than just a training program, Seeds Asia-Pacific was a 15-day cross-cultural journey featuring digital boot camps in Thailand and Singapore, as well as educational side trips to different parts of Thailand.

The largest Seeds program to date in the region, it brought together 120 outstanding students from 16 countries from across the region. 56 of the participants were women, making the 2022 cohort the most gender-balanced in Asia-Pacific since the program launched in 2008. In the course of developing their projects, participants proposed technical solutions to social problems and shared their vision for a better digital world.

Simon Lin, president of Huawei Asia-Pacific, noted: " The Seeds represent hope, passion, and future. As the corporate-level flagship CSR project with the longest history, this program has been brought to nearly 140 countries and regions, reaching over 12,000 students from 500 universities. The 'Seeds' have grown to a global 'forest.'" ✍

Famed American investor and financial commentator Jim Rogers is surrounded by Seeds for the Future participants at the Tech4Good Accelerator Camp in Singapore.

Scan QR code to find out more

HELPING TEACHERS
expand their students' horizons

Luca Benini is a professor of artificial intelligence in Italy. While he enjoys sharing knowledge with his students, what really makes his day is when they come up with something new on their own.

One day he observed a young woman in his class drawing something intriguing. She explained that it was an early design for a barista robot that would cut waiting times for customers. Coffee making sounded like a practical application of AI, so he asked if the class would like to take their ideas from the drawing board to the real world.

Huawei has a lab at the university. Benini arranged a tour for his class to learn about cutting-edge technologies and novel application scenarios. "With the equipment and the labs, students don't just learn about the latest AI technology, they also have the chance to bring their ideas to life," Benini says.

Through online platforms, competitions, developers conferences, and cooperation with schools in over 150 countries and territories, Huawei strives to help the next generation develop their ICT skills.

Scan QR code
to find out more

SEEDS

Employability

We provide education to ICT professionals so that they can keep their skills up to date and remain competitive in the job market. The programs include Cloud Developers Institute and Huawei Developers. One particular thrust of Employability is "Train the Trainers," which focuses on keeping the knowledge of ICT instructors up to date.

HUAWEI CLOUD
Developer Institute

HUAWEI
DEVELOPERS

Expanding the reach of a developer's life-saving app

Jacqueline Rogers

Jacqueline Rogers is a South African single mother, entrepreneur, and software developer. A few years ago, she observed that the African continent has some of the world's highest rates of adolescent pregnancies, HIV infections, and deaths during birth. So she created My Pregnancy Journey, an app that helps women keep track of their pregnancy.

In addition to pregnancy advice, the app also offers a wide range of information on yoga, gynecology, daily health articles, and tips for fathers-to-be. It is essentially a library of expert advice about pregnancy and women health. Since its launch, the app has won multiple awards.

To be of help, My Pregnancy Journey has to reach those who need it. Huawei's AppGallery and its analytics features

helped achieve that goal. The app has been available on AppGallery since 2020.

The AppGallery's Analytics Kit became the preferred analysis tool for the app, Jacqueline says, because it can comprehensively analyze what users have done with it. With such insights, the team can customize their appeal to different user segments and drive up app usage. By partnering with Huawei, she and her team learn new tricks. In future, they plan to integrate more HMS Core services, to further enhance the app.

Scan QR code
to find out more

14

UAE HAS TALENT

All around the world, Huawei nurtures talented youth for careers in technology. The UAE is certainly not an exception.

Khawla Albalooshi studies Computer Science at United Arab Emirates University. She is fascinated to learn new technologies, gain technical skills and implement them. In 2022, she took part in Huawei's Seeds for the Future program.

" I'm passionate about brainstorming, innovative yet practical ideas, and meeting challenges," she says. " My interest later expanded to AI, Metaverse, cloud and 5G."

In 2020, Reem Alali took part in Seeds for the Future. She is now an engineer at Mohammed bin Rashid Space Center Lab. " I would like to lead the country in the evolution of the AI sector,"she says. " I would like to take a lead in the implementation of artificial intelligence."

The holder of a bachelor degree in mechatronics engineering, Mayed Fahem Al Nuaimi is a solutions architect at Huawei UAE. He sees his job as a stepping stone. "One day, I want to be a leader of a huge cloud company, or a minister of technology in the UAE.

Seeds for the Future will continue to inspire UAE youths. And if one of them becomes CEO of his own tech firm, that would be a great success.

Scan QR code
to find out more

15

SEEDS

Daring To Challenge

We organize and sponsor a wide range of tech competitions throughout the world. They provide opportunities for contestants to test their skills in coding, algorithms, math, and engineering to solve real industry problems. One example is Tech Arena. Launched in 2022, Huawei's Tech Arena competitions are sponsored and designed by Huawei's worldwide labs in partnership with top universities to give students from around the world new opportunities to experience and learn how to solve real-world problems.

TECH ARENA

From the world's top programming competition to Huawei

At only 24, Muge (pronounced Moo-Ge) is already a veteran software developer. He participated several times in the International Collegiate Programming Competition (ICPC), the world's most prestigious programming contest. Not only that, but he and his team qualified for the World Finals, when the starting field of 60,000 youths from 3000 universities narrows down to a mere 400 contestants.

Muge's team ranked among the best of the best at the 2020 edition of the elite contest. Shortly after, Huawei snapped this young talent up. " Why did Huawei choose me? Well it's a nuanced sort of thing, and I'd say I chose Huawei as much as Huawei chose me," Muge says.

Titanium Sponsor

第40届ACM国际大学生程序设计竞赛亚洲区预赛
The 2015 ACM-ICPC Asia Hefei Regional Contest

Huawei was a Diamond sponsor of the ICPC World Final in Dhaka in 2022. The company provided not just material support but also several of the real-world algorithmic challenges that contestants tackled.

For Huawei, sponsorship of international tech competitions is a contribution to a healthy industry ecosystem. The contests enable talented youth to develop further by challenging themselves. And in the case of Muge, it also served as an opportunity to interact with a candidate who eventually joined the Huawei team. ✉
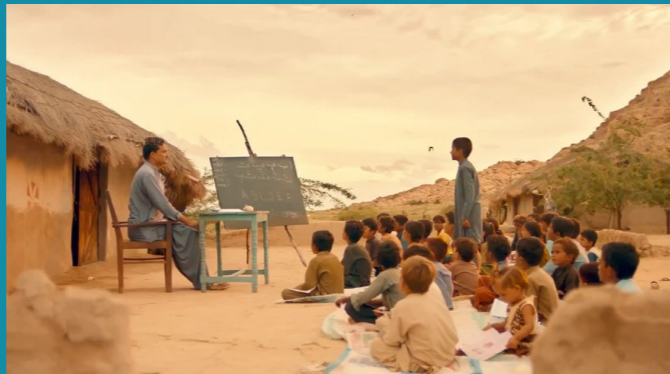
Scan QR code
to find out more

Even kids from villages without power can aspire to ICT careers

Quite often, young people just need one opportunity to reach their goal.

The district of Tharparkar, in an arid part of the India-Pakistan border, is the birth place of Bhag Chand, a young man blessed with an unusual level of determination. The village he hails from has yet to have running water and electricity.

Throughout his childhood, Bhag Chang stood out as the best student in schools that can best be described as primitive. No power, and certainly no computers or internet. Bhag Chand thirsted for more. "We are the people who live in this desert, under the open sky," he says. "But I kept asking myself, what is beyond this desert?"

His diligence as a student earned him a place at Mehran University of Engineering and Technology (MUET). There, a whole new world opened up. He and two other students joined 10,000 other Pakistani students in signing up for the 2021 Huawei ICT Competition. There, the three stood out for their excellence.

And the rest is history. Now BhagChand works as IP service Engineer in Huawei Pakistan. Every day, he learns more about what's beyond the desert.

Scan QR code to find out more

18

Three young women design a life-saving technology

From left to right are Gladys, Esther, and Martha. Three science students from Kwame Nkrumah University of Science and Technology.

During the monsoon season, it rains so much in rural Ghana that human sewage and chemical waste from illegal mines often overflow into the water supply. Contaminated water can be difficult to identify just by looking at or smelling it. This exposes villagers to poisoning.

Enter Gladys Obuobi, Martha Esinam Kekele Demanya, and Esther Aboagyewaa Abankwa. The three young women are students at Kwame Nkrumah University of Science and Technology in Kumasi, Ghana's second-largest city. In 2021, while participating in Huawei's Seeds for the Future program, a global initiative designed to upskill young talent, they realized they could do something about the contaminated drinking water.

With the help of Huawei mentors, the three created WaterBits, a low-cost AI-enabled water quality predictor. The technology, developed with an open source AI framework, combines elements of physics, biology and mathematics to assess water safety with 93% accuracy.

The trio entered WaterBits in Huawei's 2021-2022 ICT Competition. It won second place in the Innovation competition and also earned the team a Women in TECH Award.

The three now hope to partner with NGOs and businesses to distribute the technology in rural Ghana. "Most rural areas depend on rainwater and wells for drinking water and cooking," says Gladys. "We are proud that we can help in some ways."

Scan QR code to find out more

Water sources in rural Ghana are easily contaminated.

19

SEEDS

Sustainability

We believe that technology can address environmental and social challenges. This is the theme behind Tech4Good, a competition designed to help young adults explore how technology can address social issues. To encourage the participation of more women in the tech industry, we hold numerous Women in Tech activities around the world. And to provide digital skills to those who lack them, Digital Bus travels from community to community.

Women in tech

DIGITAL BUS:
class is open anywhere

Thailand aspires to become a sustainable southeast Asian digital hub. It's making good progress on its ambition. In late 2022, it had 4.2 million 5G users, or about 2.6 times the rate of penetration in the rest of southeast Asia. But Thailand's digitalization could slow down owing to a shortage of skilled people.

"When we strive toward a better world powered by technology, we need to realize that the journey is not always balanced," says Simon Lin, President of Huawei Asia-Pacific.

"As Thailand makes impressive progress in 5G and its digital economy development, there will be a gap of 400,000 people in Thailand's digital workforce supply by 2030."

Thailand's countryside is particularly short of digital skills. In 2022, Huawei Thailand launched the Digital Project in the country. Literally a classroom on wheels, Digital Bus treks from town to town to provide basic training in digital technologies to farmers, school children, and local workers in various sectors. 3000 people benefitted in 2022 alone.

While boosting economic sustainability, Digital Bus also embraces sustainability of the environmental kind. In Thailand, it powers itself with solar panels wherever it sets up shop, using Huawei Fusion Solar Residential PV technology introduced in the Thai market in 2021. ⌀

Irish team designs solution to make wheelchair users' train travel easier

Nearly 2% of the world's population gets around by wheelchair. That's over 130 million people, not a small number. And yet, it can be frustratingly hard to get around while sitting in one. For instance, in the UK, 4 out of 10 train stations lacked step-free access in 2021.
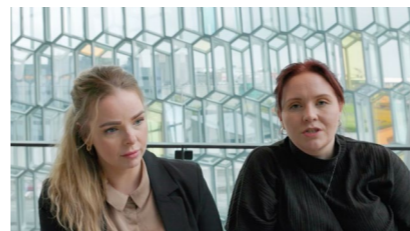
The issue with train travel can be solved. In January 2023, an Irish team participating in Huawei's Tech4Good competition won first place with a solution called "Roll On." It allows wheelchair users to deploy with their smartphone a boarding ramp when they need it. Powered by cloud computing and 5G, Roll On makes use of computer vision and 5G-networked infrared sensors to ensure that the ramp operates safely. It enables wheelchair users to enjoy more autonomy in their travels.

Launched in 2021 as an offshoot of Huawei's flagship Seeds for the Future program, Tech4Good is a competition that encourages students to address social or environmental issues with technology. The 2022-23 edition attracted 3,222 students from across 110 countries, who worked on more than 300 projects advancing the UN's Sustainable Development Goals. ✍

Scan QR code
to find out more

Hot startup ideas in Iceland

If you want to feel inspired, there's probably no better place than Iceland's majestic sceneries. After one year working together, WomenTechIceland and Huawei held in the spring of 2022 a month-long incubator program to inspire and equip women to become tech entrepreneurs.

WomenTechIceland is a non-profit organization that advocates for the rights of women in the Icelandic tech sector, focusing on diversity, inclusion and intersectionality. The incubator that Huawei and the group held included group workshops, one-on-one mentoring sessions, and investor meetings. All project activities were possible due to the enthusiastic and supportive participation of the business community in Iceland.

The culmination was on 24 May when 17 teams made presentations to compete for seed money for their startup ideas. The judges comprised Huawei executives, venture capitalists, NGO representatives, and business leaders from the innovation sector. The winning idea, as selected by judges, was Lilja app, an ambitious application that aims to prevent domestic and sexual violence.

And once again, Iceland showed itself to be a country punching above its weight. ✍

Scan QR code
to find out more

Seeds
For the Future

www.huawei.com/en/seeds-for-the-future

HUAWEI