There are 46 million adolescents in Indonesia, constituting 18 percent of the country’s population and providing a powerful stimulus to economic growth and family welfare. However, despite Indonesia’s steady economic growth, adolescents continue to face significant challenges. Indonesia’s young people struggle to access high-skilled jobs, and youth unemployment is the second highest in the Asia Pacific region. Studies have shown that youth unemployment, among other factors, is caused by a skills mismatch and limited awareness of job opportunities (Skills for the Future, UNICEF 2017).

Significant investments must be made in learning and skills development so that young people can reach their potential. Investments are crucial to equip adolescents with the capacity to manage the challenges ahead and enable them to make informed choices about their future that will include not only education, but also health and wellbeing, skills and employability and their role as active citizens (Skills for the Future, UNICEF 2017). Furthermore, if adolescents are to benefit equitably from the ongoing economic growth, then the Government also needs to ensure that supporting conditions and policies are in place and operating effectively to allow adolescents in Indonesia to positively contribute to their country’s development and make the safe transition into adulthood (Taking Advantage of The Demographic Dividend in Indonesia: A Brief Introduction to Theory and Practice).

An adolescent skills development and empowerment programme - the Markoding Innovation Challenge 2019 - brought together marginalized young people aged 10 - 19 from Jakarta and Semarang to develop innovative digital solutions which addressed issues that concern them, learn new skills, receive support from mentors, and have space to explore new ideas and create solutions. As a result, participants improved their 21st century skills (transferable skills) as well as digital skills. The challenge was implemented by UNICEF Indonesia in partnership with Yayasan Daya Kreasi Anak Bangsa (Markoding) and supported by the global technology company, Arm and the Provincial Government and Education Office in Jakarta.

The programme started in November 2019 with workshops for teachers and mentors, followed by Innovation Challenge workshops that brought together 482 adolescents (34% female) from 21 secondary schools and four community-based learning centers. After the initial Innovation Challenge, 164 digital solution ideas were submitted with issues ranging from education, bullying and violence against females, environment, health, climate change, and mental health. Seven teams were selected as finalists to participate in the eight-week intensive Digital Innovation Bootcamp to develop and demonstrate their digital solutions prototype, followed by a showcasing of the finalists’ digital innovations to relevant ministries, provincial officials, the private sector and other young people at an online ‘Demo Day’ in July 2020.
RESULTS
The Markoding Innovation Challenge helped adolescents to develop 21st century skills (transferable skills) such as project management and digital skills such as design thinking, coding, UI/UX.

Most students (67 percent, half of whom were female) who progressed to the bootcamp believed that their problem-solving and creativity skills improved after joining the programme. There were fewer female students who perceived an increase in collaboration skills (24 percent), compared to male students (35 percent). While almost half of the students (44 percent) believed that their communication skills improved, only 12 percent of those were female students. Fifty-six percent of students believed their coding skills highly improved after participating in the bootcamp, 33 percent perceived themselves as having moderate coding skills and needing to learn more.

LESSONS LEARNED
Adolescent participation: It was important to be flexible and ensure the activities could fit into the schedules of both in and out of school adolescents.

Methodology and content:
- In order to help adolescents catch up on missed sessions, recordings were made available.
- To be more gender-inclusive, gender-sensitive content and visuals were created.
- The module was heavily reliant on the partner’s platform and digital skills focus. Therefore, the content of the training should be upgraded and revised for easier scale up with other partners.

Provide support for adolescents and mentors:
- In order to support the learning of adolescents, internet packages and temporary devices were provided. Furthermore, mentors were equipped with resources to facilitate adolescents’ learning processes.
- It was necessary to include both teachers and parents into continuous discussions on how to support adolescents during remote learning.

Partnership and collaboration: It was important to engage not only national but also sub-national government offices and strengthen coordination with them.

NEXT STEPS
After a successful pilot programme in DKI Jakarta province, UNICEF and Markoding have started to scale-up the programme to other districts in Jakarta and Semarang through a 12-month skills development programme for girls and boys. In this program, 4,774 adolescent girls and boys in two urban centers have been given a challenge to find and create a digital and innovative adolescent-led solution to voice their ideas regarding the issues affecting them. These solutions are to be presented to the Government, private sector partners and other young people as a prototype that potentially can be scaled to other parts of the country. This programme is divided into two phases: Phase I took place from October to December 2020 and focused on recruitment, preparation and teacher training. Phase II started in January 2021 and will last till October 2021. It focuses on the intensive digital innovation training for adolescents from secondary, vocational and religious schools as well as community-based learning centers.

COST EFFICIENCY
For 2019 pilot project, UNICEF, through the global technology company Arm, supported the programme with US $78,431 while Markoding contributed US $15,691. This funding enabled the training of 482 adolescents and 46 teachers from 21 schools and four community learning centers.