

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

KEY ASKS

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SDG 9: INDUSTRY, INNOVATION, AND INFRASTRUCTURE

In a rapidly changing and ever more digitalized world, a vital key to the achievement of all other SDGs are innovative approaches and new products to tackle exponentially growing global challenges such as digital solutions, advances in equal access to connectivity, and investments in skills that prepare children and young people for the future.



KEY ASKS

- Promote access to connectivity to all, particularly the most vulnerable.** Globally, 29% of young people (ages 15 to 24) are not online. When disaggregated by region, around 60% of the population aged 15 to 24 in Africa are not online, compared with 4% of those in Europe. To lack connectivity in a digital world is to be deprived of opportunities to learn, communicate, and develop skills deemed critical for the twenty-first-century workplace. This will exacerbate inequalities, reducing young people's economic opportunities and preventing the exercise of civic rights as increasingly government services go "online". [Schools are an optimal starting point for connecting children and young people including with disabilities](#). The ongoing COVID-19 pandemic has highlighted the need for connectivity to enable access to digital goods and services including for learning and health.
- UNICEF urges governments to prioritize expansion of safe, sustainable, and cost-effective digital connectivity in national plans including allocation of specific resources.** The [Secretary-General's Report: Road Map for Digital Cooperation](#) recommends (i) supporting efforts to establish a baseline of digital connectivity for individuals who need to access the online space, as well as a definition of "affordability", including universal targets and metrics; and (ii) promote new and potentially transformative models to accelerate connectivity. Giga, a joint initiative between ITU and UNICEF is aiming to connect every school in the world and every young person to information, opportunity, and choice. At present, Giga has mapped 1.1 million schools in over 50 countries with live data connectivity via [Project Connect](#). To date, over 2 million students and 5,200 schools in 19 countries have been connected online. **UNICEF invites governments to commit to universal access to affordable connectivity and urges countries to join Giga by mapping school locations, connectivity gaps and accessing financing to support the deployment of connectivity solutions.**¹
- Promote the uptake, development and sharing of digital public goods (DPGs)** that increase access to information, opportunity and choice for children and young people. Digital connectivity has limited value for the attainment of the SDGs without access to relevant content, particularly for young people. Therefore, one of the key recommendations of the Secretary-General Report: Road Map for Digital Cooperation is that all actors, including Member States, the United Nations system, the private sector, and other stakeholders, promote open-source software, open data, open artificial intelligence models, open standards and open content that adhere to privacy and other applicable international and domestic laws, standards and best practices and the do no harm principle.

[UNICEF urges governments to identify local digital public goods, pilot, and scale them through national systems](#), in education, health, emergency preparedness and response, etc. UNICEF also invites governments to participate in global alliances to share, promote and fund the scaling of DPGs². The Digital Public Goods Alliance, co-hosted by UNICEF, UNDP, and Norway, is a multi-stakeholder initiative working to accelerate the attainment of the SDGs in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods.

¹ <https://giga.global/>

² <https://digitalprinciples.org/>

4. **Protect and promote human rights in the digital era and adopt specific policies to support full digital inclusion and digital equality for women, girls, and traditionally marginalized groups.** The Secretary General's High-Level Panel on Digital Cooperation stresses the role of governments, civil society, the private sector and the public in understanding and addressing new threats to human rights posed by new emerging technologies and designing new autonomous intelligence systems in a way that safeguards human rights and complies with ethical standards.
5. **Promote opportunities and innovation through investing in building skills for tomorrow and in entrepreneurial ecosystems.** Target 9.2. stresses the promotion of inclusive and sustainable industrialization. There are 1.8 billion young people in the world today, of which nearly 90% are in low- and middle-income countries - the largest cohort to date. However, opportunities are lacking for too many of these young people. With [only 30 per cent of the world's poorest children attending secondary school; over 50 million young people on the move](#) and with girls and young women more than three times more likely than young men to be out of work or education - a vital window of opportunity to build skills and nurture growth and creativity in adolescents is being missed. Meanwhile, there is strong evidence of a skills mismatch between young people and employers, and it threatens to become worse as rapidly advancing technology is demanding a very different, adaptable and changing skill set. Young people, both those in and out of school, need structured opportunities to learn transferable skills – including digital skills and literacy - for future employment or entrepreneurship. **UNICEF recommends governments, in line with SDG targets 9.B and 9.5, to invest in building skill sets in young people that prepare them for future job markets, including innovation, entrepreneurial skills, social entrepreneurship and STEM (science, technology, engineering & mathematics).** Governments should **adopt coordinated policy and investment across education and youth ministries, as well as those responsible for driving innovation and industry.** UNICEF encourages governments to take advantage of solutions in this area that enjoy robust multi-stakeholder support and evidence, such as the World Economic Forum, World Bank, UNDP and UNICEF-supported [UPSHIFT](#) programme. UPSHIFT is now fully operational in 46 countries and delivered over 62 million learning hours to 3 million adolescents and young people by the end of 2022. To close the gender gap, there needs to be a specific focus on girls and vulnerable young people who lack access to the opportunities created in a digital society. **UNICEF welcomes investment in local innovation and entrepreneurial ecosystems,** in line with Targets 9.3, 9.4, 9.5 and 9.B with a focus on **developing context-based solutions towards attaining the SDGs,** anchoring technology innovation to the Principals of Digital Development¹ that highlight: designing with the user, focusing on context-based solutions, being open source, and addressing privacy and security.



MONITOR -- THE IMPORTANCE OF DISAGGREGATED DATA COLLECTION, ANALYSIS AND USE

- **Promote the use of digital mobile tools that allow for amplifying citizen voice through evidence, feedback, and data by and from young people.** Technology has become a driving force in the lives of young people across the world: more than 4 billion now have access to the internet and five billion have mobile phones. Digital messaging and data collection mobile tools are ideal to curate the opinions and perspectives of young people to inform political, social, or economic topics at scale. As a contribution to this, 66 governments engage with more than 8.6 million young citizens with 350 partners, by making use of UNICEF's digital tool [U-Report](#) which the Office of the UN Secretary-General has identified as one of the platforms for engaging young people, including in SDG monitoring and the Voluntary National Reviews (VNRs).
- **Promote the use of new sources of real-time and big data, and new methods of analysing such as machine learning and artificial intelligence to gain useful, faster insights on challenges facing children** such as socio-economic indicators, emergencies, and epidemics.
- **Adopt, measure and report against a set of metrics for digital inclusiveness.**



INVEST -- SOCIAL SPENDING AND PROGRESS ON RESULTS FOR CHILDREN, ADOLESCENTS AND YOUTH

Invest in connectivity through innovative financing mechanisms. Digital connectivity requires harnessing innovation in the sector as well as in financing accountability mechanisms. UNICEF recommends governments, in line with Target 9.A, to join the global financing effort to create and use fair pricing mechanisms for bringing connectivity to offline or poorly connected areas, including through the Giga initiative. By joining such efforts, governments can lead the way in building the critical foundation for the digital future, with investments through Universal Service Funds, national budgets, multilateral banks, donors, and the private sector.