To be smart, the digital revolution will need to be inclusive

A number of initiatives in Africa have been targeting Industry 4.0 fields to help high-achievers see a future for themselves in science and engineering. One example is African Girls Can Code, a four-year programme launched in 2018 which aims to teach 2,000 teenage girls digital and business skills by 2022 through 18 coding camps. The initiative is a joint programme of the African Union Commission, UN Women Ethiopia and the International Telecommunications Union. The first two camps in 2018 and 2019 attracted a total of 570 girls from dozens of countries.

At the national level, too, governments are exploring unconventional ways to attract girls and young women to a career in science and engineering. In December 2019, the Ministry of Communications announced the three winners of its first Miss Geek Ghana competition for budding software app developers aged 13–25 years.* In addition to cash prizes, the young women will receive business training and financial support to develop their socially innovative project (see chapter 18). Mali held its first Miss Science competition in 2018, with UNESCO support. All 80 contestants were given computers and mobile phones by the three Ministries of National Education, Higher Education and the Promotion of Women. In an interview, 11-year-old contestant Coulibaly Seydou spoke of her passion for mathematics and how the Miss Science quiz had given her the confidence to pursue a career as a mining engineer (see chapter 18).**

Source: compiled by authors

*See: https://msgeek.org.gh/

GLOBAL TRENDS IN HIGHER EDUCATION AND RESEARCH

Too few women studying Industry 4.0 fields
In virtually every country, a growing number of women are enrolling at university. Globally, women have achieved parity among graduates at both the bachelor’s (53%) and master’s (55%) levels. Although many drop out once they get to PhD level, the threshold required for a career in research, women now account for 44% of PhD graduates, up from 43% in 2013 (Huyer, 2015).