The integration of 5G and AI technology has been a game-changer in many parts of the world, offering increased connectivity and more efficient solutions for a variety of applications. However, in the global south, the adoption and implementation of these technologies face significant limitations and challenges.

\_\_5G fact box\_\_

One of the primary barriers is the lack of infrastructure. 5G requires a dense network of cell towers and base stations to function effectively, which demands substantial investment. Many countries in the global south struggle with economic constraints that hinder such extensive development. As a result, the deployment of 5G networks is sporadic and often limited to urban centers, leaving rural areas underserved. In turn, limited 5G coverage in the global south impacts the efficacy and accessibility of AI applications. This digital divide not only hampers technological progress but also exacerbates existing socio-economic divides.

Another significant challenge is the skill gap. Implementing and maintaining advanced technologies like 5G and AI requires a workforce with specialized skills. While the African Union were early adopters of an AI strategy that includes deliberate investments in research and education, infrastructure in Africa is lagging behind.

\_\_\_MAP OF 5G COVERAGE\_\_

Making sure global economics divides are not increased by new technology requires a solid investment in infrastructure. The high costs associated with 5G technology and AI systems can be difficult challenges to overcome. According to telecommunications infrastructure giant Ericcson, 5G will account for 5 billion devices and 55% of all telecom subscriptions - 150 million of these in Sub-Saharan Africa. And since the density requirements of 5G radio towers, the company is still building 4G infrastructure to improve access in rural areas.

5G and AI hold immense potential for transforming societies, but their limited implementation in the global south highlights a stark technological divide. Addressing these challenges requires involving government policies, investment in infrastructure, education and training programs, and collaboration with international bodies. Bridging this gap is crucial for ensuring that the benefits of technological advancements are equitable and inclusive, enabling the global south to fully leverage the opportunities presented by 5G and AI.

Sources: Ericsson.com, nepad.org, brookings.edu