

»» Megatrend digitalisation: a pivotal "game-changer" for developing countries

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"Digitisation" means nothing other than breaking down information into a sequence of zeroes and ones. This makes it easier and more reliable to transfer, analyse, process and store information. By extension, digitalisation is the advancement of digital technologies such as computers, the Internet, smartphones or robots.

Digital technologies are changing the way present generations live, work and communicate with one another. Digitalisation is also increasingly permeating all areas of the economy and making completely new production processes possible, some of which are even automated and spread far across several continents. This is why it is called the "Fourth Industrial Revolution".

Digitalisation makes it possible to overcome barriers to development

Digital technologies provide the opportunity to shape social and economic development more efficiently, to streamline them, and to steer them along more ecologically sustainable paths. Developing countries in particular have enormous potential to overcome existing barriers to development, including:

- Improved supply of basic services for the population, primarily in remote regions (e-health, e-learning, mobile banking, etc.);
- Improved production using improved communication (Internet) and decentralised, need-based local production ("mass-customisation" with 3D printers: economies of scale lose significance) to overcome spatial marginalisation;
- Improved governance through improved transparency (information), citizen participation (online portals) and control of corruption (verification with database comparisons, etc.)

Many experts see digitalisation as an opportunity to quickly make up the difference in development with leaps in technology ("leapfrogging"). Some even use the term "overtaking" because developing countries are hardly "locked in" by obsolete technologies. Instead, they can set up modern technological infrastructure right away.

To exploit these opportunities, however, the essential basic conditions must first be created in the countries. This includes

- Basic digital infrastructure (broadband networks, in particular) for technical access to the Internet
- Digital literacy so that the technology can also be used
- A regulatory framework for effective competition (low prices, adapted solutions) and appropriate privacy.

Accelerated national structural transformation can place poverty reduction at risk

However, there are also risks when development steps are skipped: the development pattern of subsistence-based agricultural production to widely effective industrialisation through to knowledge-intensive services is required in order to first overcome prevalent poverty in unproductive agricultural economies with productive employment and income; this creates supply and demand for higher-quality services.

According to the World Bank, up to 2/3 of the present jobs in developing countries could be lost due to increasing general digitalisation and automation in the coming decades. Many workers displaced by the productivity advances (especially low-skilled workers) would then possibly remain unemployed and permanently remain in poverty. This

would not only be a humanitarian problem of the highest degree, it would also present enormous social and political potential for conflict.

Reinforcement by means of global structural transformation to the detriment of poorer countries

The problem could even be exacerbated by simultaneous global structural transformation: in the course of economic globalisation, many companies relocated labour-intensive production from industrial nations to low-wage countries. However, digitalisation also facilitates greater automation of production (increasing capital intensity), which means that labour costs lose their relative importance and production can be brought back to industrial countries again.

Conclusion: governments must proactively support digitalisation

The megatrend digitalisation is a pivotal "game-changer" for developing countries – both in a positive and a negative sense. The megatrend is unstoppable. Governments can only proactively "support" it or particularly promote it in cases that demonstrate clear advantages in terms of development policy (e.g. increasing transparency and anti-corruption, improved basic government services) and proactively cushion its effects in cases where there could be negative side effects (e.g. employment promotion, vocational training, expansion of social systems). ■