

to 30 per cent of total costs. According to the World Economic Forum, the removal of barriers due to Blockchain could result in more than US\$ 1 trillion of new trade in the next decade.

Blockchain opens up new opportunities for micro, small and medium-sized enterprises (MSMEs) and small producers from developing countries.

Blockchain could be a powerful tool to facilitate MSMEs' participation in international trade, by facilitating access to trade finance, facilitating trade procedures, and reducing trade costs. It could help to lower barriers to entry, making it easier for small companies and producers to participate in international trade.

However, these opportunities can only be realized if small firms and producers have the right technical skills and enjoy adequate internet access. Addressing the digital gap – both in terms of access and bandwidth – is therefore of key importance. In addition, like any innovation, Blockchain carries with it the risk of disrupting some sectors and categories of workers. Opportunities and benefits may not be equally shared.

However, these opportunities will only be realized if several key challenges are addressed, including technical issues such as scalability, ...

Many observers point to the limited scalability of blockchains due to the predetermined size of blocks and energy consumption issues. While scalability is a serious issue for public blockchains, it is less so for consortium permissioned ones, which do not face the same limitations. Consortium permissioned blockchains, which have great potential for international trade, are more easily scalable. The heated controversy surrounding the level of energy consumption of blockchains is above all a “permissionless issue”. In addition, new algorithms – many of which are moving away from the concept of blocks – are being developed that are quicker and less energy-intensive, and that can therefore be more easily scaled up.

Another potential long-term technical challenge relates to security issues. Although blockchains are highly resilient compared to traditional databases due to their decentralized and distributed nature and the use of cryptographic techniques, they are not completely immune from traditional security challenges, and advances in technologies, in particular the rise of quantum computing, could, in the long term, represent a threat to blockchain technologies. “Post-quantum” algorithms that would be resistant to quantum computing are being actively researched.