Our increasingly urban environment sees new construction forging ahead in developed and developing countries around the world. The work is essential to meet the needs of a world population that has more than doubled since 1950. Not surprisingly, therefore, the building and construction sector has grown into one of the largest global industries with immense consequences for all three dimensions of sustainable development – economic, social and environmental.

With so much at stake, principles for sustainability need to be combined with a growing need for ICT connectivity for intelligent buildings that optimize energy efficiency, safety, security, communication and sheer convenience. International standards developed by IEC, ISO and ITU provide the means by which desirable principles and information and communication technology (ICT) connectivity are translated into practical application and implemented efficiently and effectively on a global scale.

Today, new commercial, governmental and residential buildings may need to meet a multiplicity of demands: from resistance to fire and flood, natural disasters and terrorist attack, through energy efficiency and a reduced environmental footprint, to ease of integration with ICT networks as well as accessibility for disabled or elderly persons.

Buildings represent a large share of the economic assets of individuals, organizations and nations. The sector is a major provider of employment; construction materials and processes have an impact on the health and safety of both construction workers and the people who live or work in buildings, and the quality of buildings has a direct influence on the quality of life. And from an environmental perspective, construction is both a huge consumer of natural resources and a generator of large amounts of waste and pollution. In addition, buildings are significant users of energy, with its related emission of greenhouse gases.
The international consensus between countries and among stakeholders, on which IEC, ISO and ITU standards is based, encourages their worldwide implementation. International consensus on standards for climate change mitigation, energy saving, environmental terminology, environmental performance, environmental declaration of building products, energy efficiency and greenhouse gas emission accounting and verification provides a firm foundation for designers and architects, engineers, owners and government authorities to develop sustainable buildings.

The work of IEC, ISO and ITU helps to link sustainable and intelligent building through standards that facilitate the connectivity of new buildings. Construction increasingly incorporates more and more electronic devices that link to networks distributing and using digital information and media. For example, the remote control of lighting, heating, appliance-use and security systems are making the "intelligent building" a reality. Given the various technologies involved, international standards that enable interoperability and security are key to bringing value and choice to consumers, making possible the use of diverse products, services and sources, and therefore accelerating market development and take up.

International standards from IEC, ISO and ITU applicable to today’s buildings increase production efficiency, optimize resources, disseminate knowledge, facilitate free trade and fair competition and simplify the design and planning of buildings. Among further benefits are competitively priced products and construction work, higher quality and safety, lower exploitation costs, reduced accidents and rapid dissemination of new technologies for an improved quality of life for the user and occupants of buildings.

International standards help to ensure not only basic quality and safety requirements, but also the incorporation of new technologies for the construction and operation of intelligent and sustainable buildings.