

Net!Works

3G

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SUCCESS STORIES

EUROPEAN TELECOMMUNICATIONS INFRASTRUCTURES: A FAIRY TALE?

Telecommunication Infrastructures built in Europe supported a high quality of life both in developed and developing countries. Then, the recession came, accompanied by intense competition from the rest of the world, places that did not necessarily share European values such as privacy and cultural diversity, and threatened to make Europe lose its edge in the area of telecommunications. Luckily however, **the European Union made it possible for people to benefit from Internet services, leading to an even better quality of life.**

We can make the fairy tale that is Europe's continuous leading edge in the area of telecommunications into a reality, but only if we take the right decisions now.

Why is it important?

Empowerment and opportunity come from access to relevant information and from a reinforcement of the individual's ability to communicate. Telecommunications infrastructures and related services are a conduit for this empowerment and opportunity creation.

Investment in ICT, more particularly into telecommunication infrastructures are worthwhile and cost effective to support some of Europe's main societal challenges including but not limited to: cleaner environment; smart, green & integrated transport; and health & wellbeing.

Telecommunications infrastructures promote sustainable development, leading to a better quality of life.

TELECOMMUNICATIONS FOR A CLEANER ENVIRONMENT

High concentrations of suspended particulates adversely affect human health, provoking a wide range of respiratory diseases and exacerbating heart disease and other conditions. Fuel combustion by motor vehicles is another major source of suspended particulate emissions in urban areas. These emissions are particularly detrimental to human health because pollutants are emitted at ground level.

Energy use becomes more efficient and environmentally cleaner technologies are introduced as income per capita increases because people become more concerned about how the environment affects their health. To prevent global change, concerted efforts are needed from the government of most countries.

Other than being able to target urban air pollution, the use of sensor networks, enabled by telecommunications infrastructures can also be used to detect air and water pollution, floods, fires, volcano eruptions, and many other dangerous occurrences, thereby promoting cleaner environment and safer climates that causes less harm to the bio economy and to humans.

TELECOMMUNICATIONS FOR SMART, GREEN AND INTEGRATED TRANSPORT

80% of the European population lives in urban areas¹. Their mobility needs often result into a number of problems, such as traffic congestion, increased pollution levels and/or greenhouse gas emissions, excessive travelling time, and energy consumption. These problems can be alleviated by exploiting Intelligent Transportation Systems. The development of telecommunication technologies and ICT as a whole leads to more effective and efficient use of road infrastructures. >>>

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>>> Data from public transportation infrastructures can be gathered, transformed into useful management information, and used to accurately predict the number of transportation facilities needed, and be dispatched at any given time.

Telecommunications infrastructures enable smart, green, and integrated transportation systems, which in turn promote a cleaner environment and more efficient energy consumption.

A widespread adoption of such systems in urban areas would have a tremendous impact on citizens' quality of life. Traffic congestion would be reduced, and, a number of energy-related and environmental problems (pollution and energy consumption) that negatively affect human health can be alleviated as well.

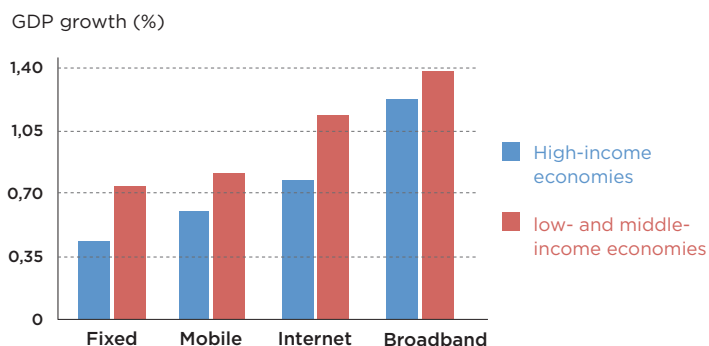


Figure 1: effect of broadband penetration on GDP growth in high-income economies, and low- and middle-income economies

TELECOMMUNICATIONS FOR BETTER HEALTH AND WELLBEING

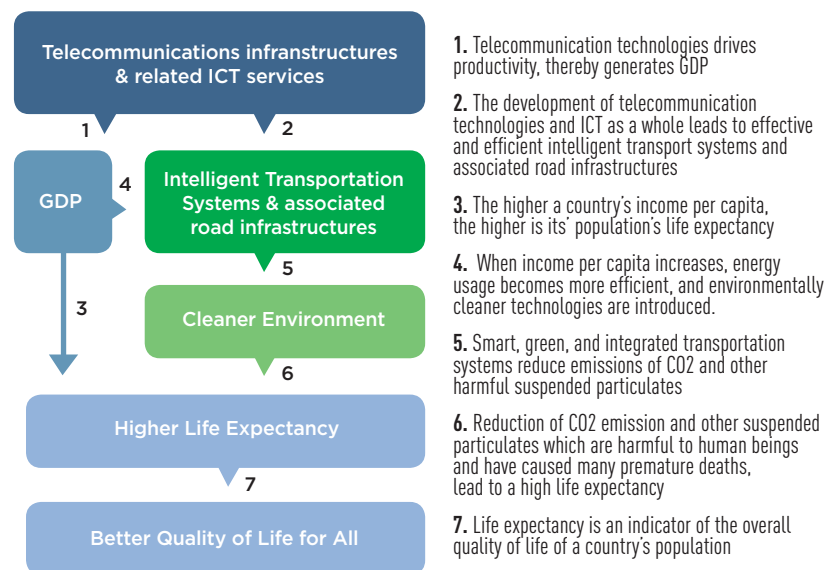
Life expectancy at birth and the under-5 mortality rate are the two statistical indicators used to monitor the health of a country's population. They are often cited as overall measures of a population's quality of life because they indirectly reflect many aspects of people's welfare. In general, the higher a country's income per capita, the higher is its life expectancy. **GDP has a positive influence on the quality of life of the people.**

There is also a positive correlation between the penetration of mobile phones and boost in GDP per capita, and between an increase in broadband network and general economic growth. Figure 1 indicates that increased broadband penetration can create GDP growth up to 1.28% points in low- and middle income economies, and a 1.21% points in high income economies. **Efficient telecommunications infrastructures increases GDP both in developing and developed countries.**

SO WHAT IS THE CONCLUSION?

Efficient telecommunications infrastructures have a positive influence on the quality of life of the people in high-income countries and on life expectancy in low- and middle income economies.

When Europe invests in research and innovation in ICT and telecommunication infrastructures, it ultimately leads to sustainable development and a better quality of life for the people in Europe and beyond.



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