



VODAFONE INSTITUTE GIGABIT SOCIETY STUDY REVEALS:

GERMANY IS AN INNOVATION POWERHOUSE BUT LAGS IN FIBRE CONNECTIONS

If Germany wants to remain competitive in the international markets of the future, it will have to prioritise the establishment of future-proof broadband network infrastructure capable of speeds of 1 gigabit (1000 megabits) per second.

This is a key finding of a study entitled “The Road to the Gigabit Society”, which was conducted by IW Consult GmbH, a subsidiary of the Cologne Institute for Economic Research, together with the Economica Institute of Economic Research and the Fraunhofer Institute for System and Innovation Research (ISI).

Commissioned by the Vodafone Institute for Society and Communication - Vodafone’s Berlin-based think tank - the study had three main goals. Firstly, to map the current landscape of broadband connectivity and the status-quo of fibre-optic infrastructure in Germany and around the world. Secondly, to determine the economic impact of fibre-optic network infrastructure. Thirdly, by studying patent applications, to identify the growth-driving and highly market-relevant technologies which will require gigabit connectivity.

The main findings of the study include:

- Germany is among the top five countries in terms of patent registrations in almost all key “Gigabit Society” technologies. These include robotics, holography and 3D printing;
- but average network speeds are low and only 1.3% of the population has access to gigabit fibre broadband;
- the current German national broadband speed target of 50 megabits per second cannot cope with future data volumes; and
- 1% more gigabit fibre connections per year would increase German gross domestic product by €600 million to €1.2 billion per year.

Vodafone Germany CEO Hannes Ametsreiter commented: “The results of the study make it very clear how essential it is to have a sustainable mix of gigabit-capable technology such as fibre-optic and HFC (Hybrid Fibre Coax) cable. Our European neighbours and Asian countries are driving gigabit developments while Germany discusses copper wire upgrades. Surely this can’t be what a leading industrial nation aspires to?”

He added: “Speaking in Berlin this week, EU Commissioner **Günther Oettinger** said: ‘A data rate of at least 1 gigabit per second will be essential if Germany doesn’t want to be drowned by future data volumes’. * We need to recognise that competing in the gigabit economy of tomorrow means putting the necessary infrastructure in place today. I hope that this study contributes to the important discussion we must have now about Germany’s digital future.”

Germany lags other nations when it comes to gigabit technology

Only 1.3% of the German population currently has access to future-proof gigabit-capable technology such as fibre-to-the-home, compared to nearly 70% in leading gigabit countries like South Korea. In Europe, Sweden (46%), Norway (31%), and Portugal (24%) lead the way, with countries such as France and Ireland committed to catching up (OECD, 2016).

While 72% of the German population has access to high-speed cable, which currently delivers speeds of up to 400 Mbps and is capable of gigabit speeds (Anga, 2016), 26.5% of the population relies on copper broadband networks (TÜV Rheinland, 2015). This may result in significant competitive disadvantages for domestic enterprises in the foreseeable future.

According to the study, increasing the number of fibre-optic connections in a country by 1% is associated with an increase in gross domestic product (GDP) of between 0.02% and 0.04% per year. For Germany, this would mean a growth in GDP of €600 million and €1.2 billion per year.

German is a leading innovator in key technologies

The study identified a total of 17 key technologies that will play an important role in shaping the Gigabit Society and verified them on the basis of the number of patent publications in the years 2006 to 2015. They include robotics, holography, 3D printing, imaging techniques and gaming. German innovators identified and picked up on these technologies very early on: in fact, Germany is among the top five countries in terms of patent registrations in almost all key technologies.

The study also highlighted that key gigabit technologies have many different fields of applications. They include digital agriculture, digital living (e.g. home robotics, e-commerce, e-wallet, e-payments etc.), e-government, e-health, energy generation and mobility/ transport/ logistics.

An analysis of relevant literature reveals that data volumes are going to continue to increase in future and, with that, demand for higher broadband speeds and lower latency will continue to rise.

“The Road to the Gigabit Society” study availability

The full study (German language) is available at www.vodafone-institut.de

The study will be launched at an event (English language) in Dusseldorf on 13 June 2016. For further information visit: <http://www.digitising-europe.eu/dusseldorf> Or follow the conversation on twitter @vf_institute #gigabitsociety

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* Commissioner Oettinger spoke at the Handelsblatt Annual Digital Energy Industry Conference 2016 in Berlin on 6 June.
<http://veranstaltungen.handelsblatt.com/digitalisierung-energie/>

About the Vodafone Institute for Society and Communication

The Vodafone Institute for Society and Communications explores the potential of mobile and digital technologies to improve political, social and economic participation and to give better access to education. As a think-and-do tank the Institute fosters dialogue between academia, business and politics. It initiates projects and research, and publishes reports to give practical recommendations for decision makers. Through events and social media communications we provide a platform for debate. The collective competence and wide-ranging expertise of the Advisory Board members reflects the Institute's intention to act as a cross-sectoral platform for academia, business and politics.

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