

Cutting congestion on the data network highway

September 12 2014



Perhaps no other consumer-driven technology has made such incredible advances in such a relatively short space of time as the mobile phone. Today's smartphones are used to stream videos, access social media and perform all manner of other functions. What is more, global mobile data traffic is expected to dramatically increase over the next decade, placing increasing pressure on existing network infrastructure.

This is why the EU-funded MIWAVES project was launched at the beginning of January 2014. It aims to enable [mobile](#) networks to unblock major data traffic bottlenecks by opening up new bandwidth – a bit like easing car congestion by opening up a new lane on a motorway. In order to do so, the three year initiative supports the development of future

network infrastructures that will allow faster flows of information and interoperability between mobile, wired and [wireless broadband network](#) technologies.

The key, this project believes, is to focus on developing what is known as millimetre-wave (mmW) radio technologies, which will enable the next generation of mobile users to enjoy increased data rates.

MIWAVES – partially funded by the European Commission's FP7 Programme under the objective 'Network of the Future' – has therefore set out to demonstrate how this available mmW spectrum can best be exploited, how low-cost or advanced mmW technologies could provide quick access to data and thus contribute to sustainable traffic growth.

The project will also examine the commercial potential of this technology, in part by bringing together European industries and researchers in the domain of wireless communications. The project team will also help to ensure that Europe's ICT industry remains at the forefront of innovation, especially when it comes to future broadband mobile networks.

MIWAVES is expected to have a major impact on the next generation of wireless networks. The deployment of mmW technology in dense urban areas will not only improve access but also energy efficiency through the use of low-power access points using mmW spectrum resources. Indeed, MIWAVES could be instrumental in ensuring that Europe is ready for 5G (the so-called 5th generation of [mobile networks](#)). This term denotes the next major phase of [mobile telecommunications](#) standards beyond the current 4G standards, which is expected to come online sometime after 2020. As 5G does not as yet describe any particular specification, the MIWAVES project is truly at the cutting edge of this sector.

Providing seamless broadband wireless mobile communication in order to connect people with content and things through the future internet is a

major objective of the Digital Agenda for Europe, and this [project](#) very much supports this goal. By anticipating that current levels of [mobile data traffic](#) will only increase, MIWAVES will help to ensure that Europe's network users continue to enjoy fast and reliable access to information.

Provided by CORDIS

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