

# Towards the Internet of Things Broadband implementation plan

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# Internet of Things and the background to the implementation plan

The Digi2 key project in the Government Programme, which aims to create a favourable operating environment for digital services and new business models, includes a section on the Internet of Things, IoT. As the devices are constantly communicating with the network and with each other, greater network access and capacity are needed.

In Finland, favourable conditions for the Internet of Things will be created by promoting the construction and development of high-speed fixed and wireless connections that are extensive, timely, energy-efficient and secure.

To implement these policy lines, the Ministry of Transport and Communications has drafted a plan for the promotion of extensive high-speed broadband connections. The implementation plan defines concrete measures that are necessary for securing the Internet of Things.

The basis of the plan is to increase and promote market-driven demand and supply of high-speed connections without distorting competition or the technology-neutral approach, in other words promote the balanced co-development of fixed and wireless connections.

Finland's forward-looking spectrum policy has helped increase the coverage of wireless connections so that it includes almost the entire population. Currently, and in the future, the material used in the fastest and most reliable broadband connections with adequate capacity is optical fibre.

The construction of optical fibre connections has not progressed as expected so the implementation plan proposes measures to promote it through shared construction and reduction in the number of permits.



# Measures in the implementation plan

The following measures are proposed in order to meet the broadband targets:

- 1. The consumer demand for optical fibre will be promoted.** Constructing an extensive optical fibre network in Finland calls for increased consumer demand for optical fibre. Due to the growth of telemedicine, for example, the future digital services will require consumer connections with increased speed and reliability. Together with other ministries the Ministry of Transport and Communications will seek ways to provide support for consumers in the process of digitalising public services.
- 2. The private sector will proactively focus on constructing fixed lines.** The Ministry's main premise in promoting broadband access are market-based solutions. Imperative to meeting with the goals is that infrastructure companies make adequate investments in high-speed fixed connections. In particular, the Ministry of Transport and Communications will follow the progress of fibre optic construction and the investments made into it.
- 3. The permit structure and processes of the Centres for Economic Development, Transport and the Environment will be further clarified.** The site investigation requirements by the Centres for Economic Development, Transport and the Environment have already been reduced. The permit bureaucracy will be cut in a new highways act, as in certain cases of cable location the permit procedure will be replaced by a notification procedure. The requirement for a notification will apply to around 20% of roadworks.

The Ministry of Transport and Communications will continue to reduce the permit bureaucracy by means of extending the permit procedure, for example. The aim of reducing bureaucracy will also be taken into account in new legislative projects, for example in the overall reform of the private roads act. The Ministry of Transport and Communications will also negotiate with other licensing agencies and authorities about simplified permit processes.

- 4. The systems used by the Centres for Economic Development, Transport and the Environment will be digitalised.** The permit processes will be facilitated by improving the electronic systems of the Centres for Economic Development, Transport and the Environment. The Centres and the Finnish Transport Agency will together devise a plan for digitalising the permit process.
- 5. The permit processes in shared construction will be harmonised.** The purpose of the act on shared construction, which is to enter into force in the beginning of July, is to reduce the building costs of the infrastructure networks by promoting shared construction. To increase the willingness to cooperate the Ministry of Transport and Communications is examining, if the permit processes of the parties involved in shared construction could be merged.
- 6. Information point services at the Finnish Communications Regulatory Authority will be enhanced.** An information service point as referred to in the act on shared construction will start operating in 2017. The service point will

be developed so that it genuinely encourages shared construction and offers easy access to information about the subject matter.

**7. Conditions will be created for the introduction of 5G technology in the 2020s.** Decisions on the spectrum to be allocated for 5G will be made in the World Radiocommunication Conference in 2019 (WRC-19). Finland will endeavour to influence actions at the EU and international level so as to ensure that a sufficient number of appropriate frequencies will be allocated for the use of 5G. In order to decide the national positions the Ministry of Transport and Communications will appoint a working group for a term extending until the end of 2019. The Finnish Communications Regulatory Authority will continue to grant licences for product development and testing of 5G technology.

**8. Wireless broadband will be promoted by means of spectrum allocation. Preparations will also be made for the increasing distribution of media content in broadband networks.**

The need for wireless broadband spectrum will continue to increase. It is important that the decisions on spectrum use will be made on the basis of the real technological development and efficient use of frequencies. The aim is that also in the future as many frequencies as possible will be allocated to the wireless broadband.

A requirement for the roll-out of media content distribution in broadband networks is that the networks become a true alternative for television channels, for example. The roll-out should be market-driven and take the needs of both television operators and consumers into account.

**9. No new aid applications within the high-speed broadband project will be accepted after the end of 2017.** Since 2010, high-speed broadband connections in sparsely populated areas have been promoted within the framework of the High-Speed Broadband project (formerly Broadband for All 2015). Along with the implementation plan, the aim is to end the High-Speed Broadband project and not accept any new aid applications after the end of 2017 and stop payments by the end of 2019.

**10. The Ministry of Transport and Communications will hold annual discussions with the stakeholders between 2016 and 2019 about the implementation plan and monitor its development.**