



Traveling Wave Tube based W-band Wireless Networks with High Data Rate,
Distribution, Spectrum and Energy Efficiency



Millimetre wave for High capacity everywhere

The objective of the TWEETHER project is set a milestone in the millimetre wave technology with the realization of the first W-band (92-95GHz) wireless system for distribution of high speed internet everywhere. The TWEETHER aim is to realise the millimetre wave Point multi Point segment to finally link fibre, and sub-6GHz distribution for a full three segment hybrid network, that is the most cost-effective architecture to reach mobile or fix final individual client. The TWEETHER system will provide indeed economical broadband connectivity with a capacity up to 10Gbps and distribution of hundreds of Mbps to tens of terminals. This will allow the capacity and coverage challenges of current backhaul and access solutions to be overcome.

tweether objectives

- 1 Define the future wireless network architecture for small cell backhaul and access applications, leveraging the W-band spectrum and the point to multipoint principle to enable an energy and spectrum efficient and high performing network.
- 2 Develop the millimetre wave technology with unique performances for boosting wide adoption of W-band systems.
- 3 Integrate the developed technology into the RF front end modules to achieve cost effective and compact network nodes.
- 4 Validate the enhanced capabilities provided by the TWEETHER system by means of a small scale field trial, which will be a vehicle towards the exploitation of the developed technology.

at a glance

Start Date: 1st January, 2015
Duration: 36 Months
EU funding: 3,333 MEuro
(3.333.723,00 EUR)
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