



D-band Radio solution Enabling up to 100 Gbps Reconfigurable Approach for Meshed beyond 5G networks



Dream project will bring wireless systems to the speed of the optical systems

The vision

Exploitation of the radio spectrum in D-band (130-174.8 GHz) with beam steering functionality enables wireless links with data rate exceeding current V band and E band wireless backhaul solutions by at least a factor of 10 and brings wireless systems to the speed of optical systems.

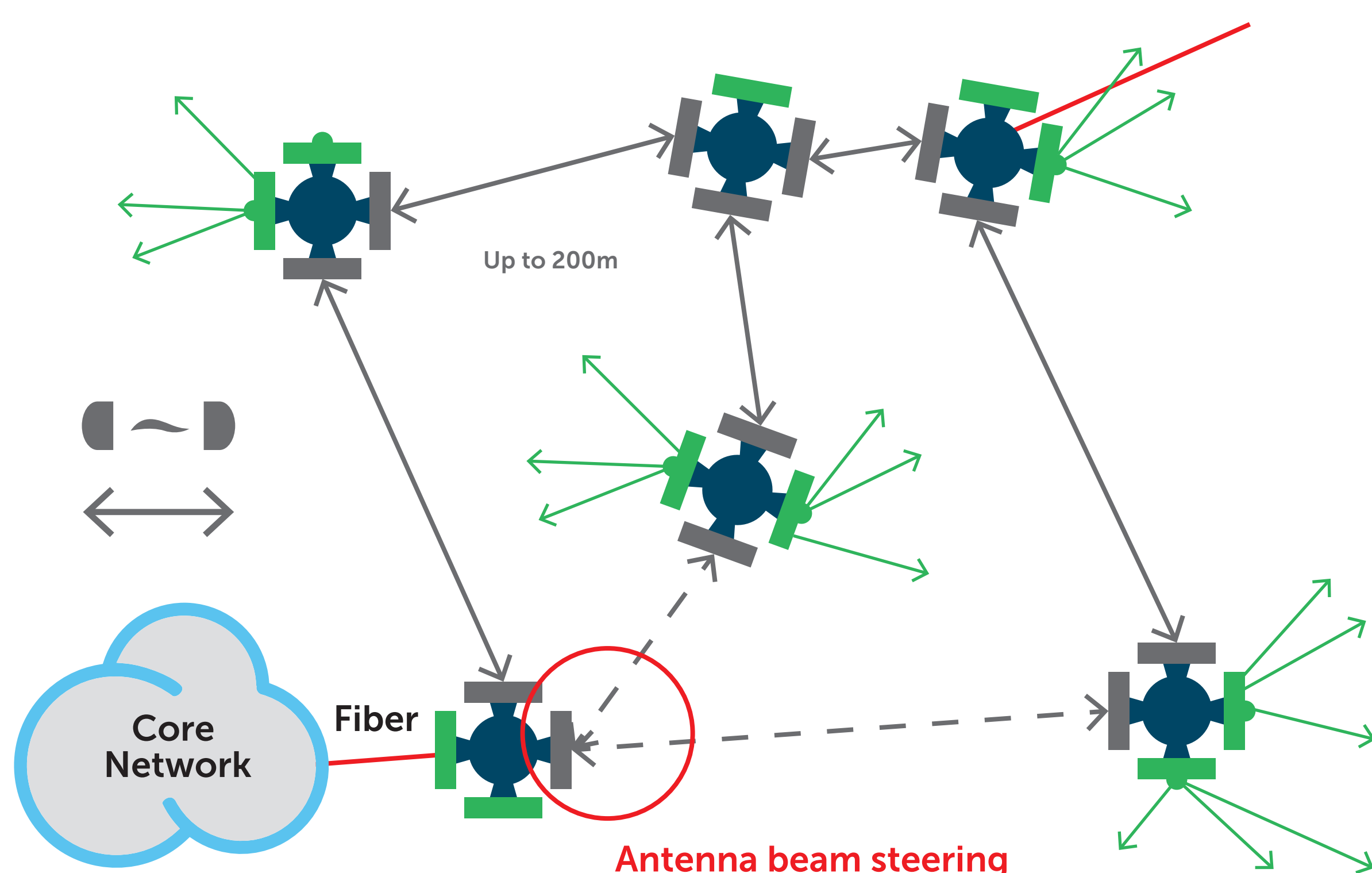
The objective

The main objective of this project is the research and development of advanced, cutting-edge technologies for wireless high data rate communication links able to cope with the requirements of future cellular networks beyond 5G.

The small cells & the Dream's solution

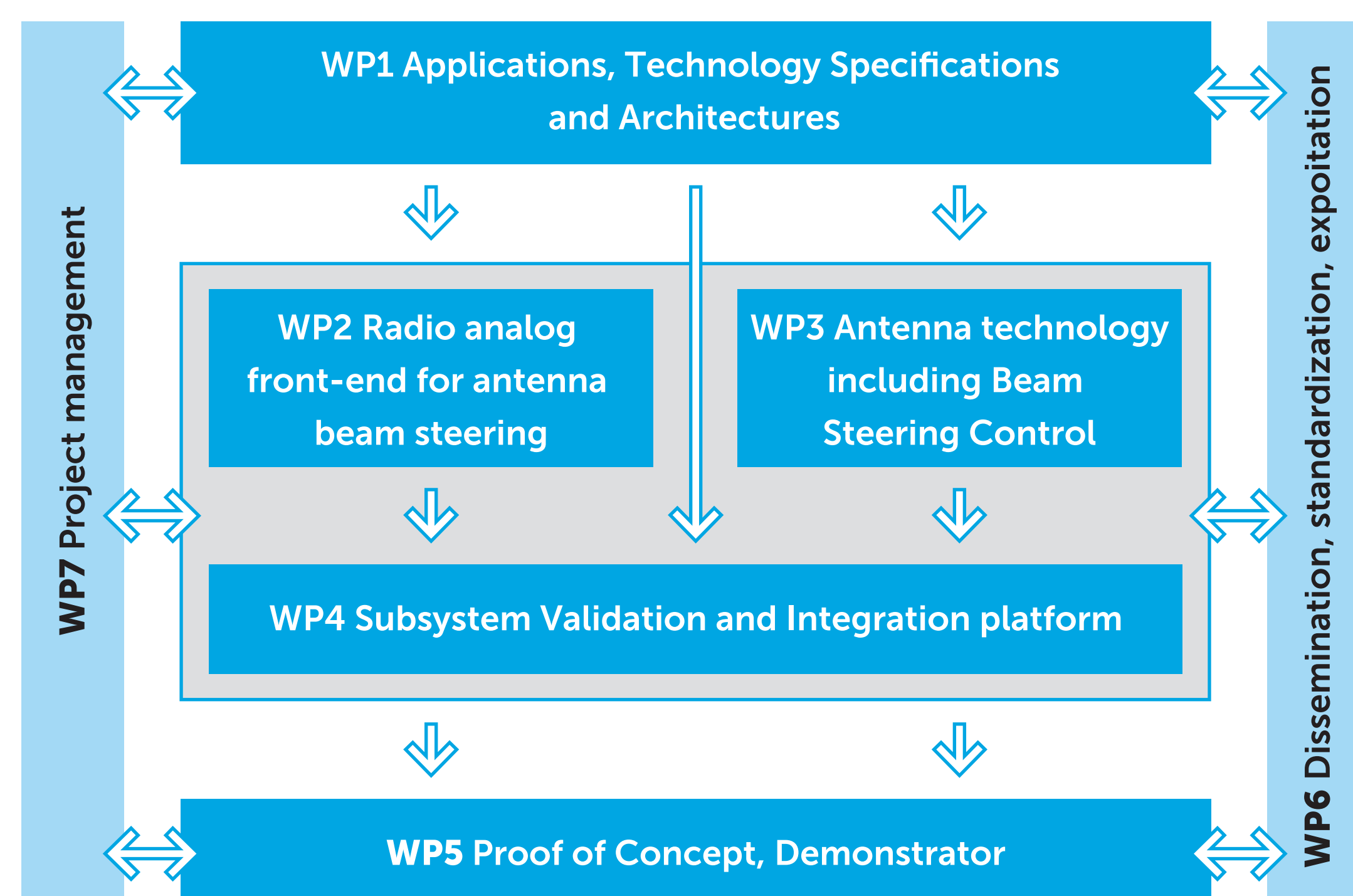
Small cells are a key enabler of future networks and they are currently a focus of research leading to new challenges for the backhaul network because of their dense deployment. In order to allow the Small Cell backhauling network deployment at reasonable costs with seamless fiber performances, project DREAM envisages the multi gigabit wireless Small Cell network.

The DREAM project will research a wireless link solution supporting data rates up to 100 Gbps covering distances of up to 300 m at ultra-high carriers in the D-band frequency range 130 GHz-174.8 GHz. To support such data rates wirelessly, channel bandwidths of few gigahertz will be required. In order to optimize inter-small cell data transferring, to get flexible backhauling and network mesh re-configurability in network approach, an important feature of the link solution will be beam steering functionality.



Work plan

The work plan of the project has in total 7 WPs: two non-technical WPs for management, dissemination, exploitation and standardization activities, five WPs for technical tasks.



Participants



Info & contacts

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