WORTECS
Wireless Optical/Radio TErabit CommunicationS

Introduction

WORTECS explores the terabit per second data rate capabilities of beyond 90 GHz electromagnetic spectrum, combining radio and wireless optical access technologies. ...

Achievement

Within Information and Communication Technology (ICT) H2020 framework, the European research project **WORTECS** (**W**ireless **O**ptical/**R**adio **TE**rabit **C**ommunication**S**) has been recently accepted/labeled despite high competition.

Offer

WORTECS aims to offer:

- **Optical Wireless Communication** (OWC) and **radio over 90 GHz** proof of concept (PoC) with several Gigabit per second (Gbps) throughput: innovation on radio and optical front-ends, coding and other PHY/MAC improvements.
- **Heterogeneous wireless Network** (HetNet) investigations with new access technology architectures and protocols for routing, latency and caching.

Last but not least, the **customer views** will be taken into account through interviews, questionnaires and **field tests**. The purpose is to provide a Virtual Reality **user-friendly** interface with a homogeneous solution including several Gbps data rate, reduced latency and multi-user environment associated with an accurate tracking.

With a **3 million euro** budget, WORTECS consortium brings together several European industrial and institute players in this market (Orange, Oledcomm and B-Com from France, IHP Microelectronics from Germany, pureLiFi from UK) as well as universities recognized in this area (University of Oxford from United Kingdom and University of Las Palmas from Spain).

Use case

Wortecs project: Wireless terabyte communication with Virtual Reality use case...

Next step

WORTECS was launched in September 2017 for a three years period. The aim is to propose scientific and technological enablers for new spectrum bandwidth availability, especially at frequencies above 90 GHz up to THz allowing communications backed by innovative usage scenarios; for instance, **Virtual Reality (VR).** It will also address visible light communications and develop radically new approaches for spectrum efficiency.