

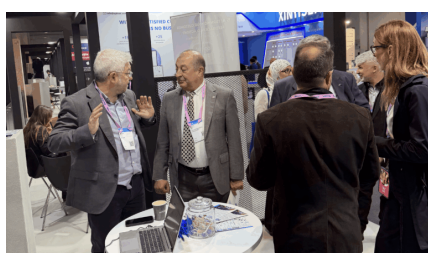
# AI-Enhanced Fiber-Wireless Optical 6G Network in Support for Connected Mobility

# 6G EWOC

Newsletter  
n° 8  
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## 6G-EWOC at the Mobile World Congress 2026

6G-EWOC had the pleasure to showcase a demo at the Mobile World Congress, which was held from 2<sup>nd</sup> to 5<sup>th</sup> of March in Barcelona. The teams of UPC and Beamagine contributed their LiDAR technology towards the exhibition of the congress – a sensing technology which has been augmented towards an ISAC solution for 6G deployments. Our researchers Pablo Garcia, Jose Antonio Lazaro and Santiago Royo engaged with the audience and SNS representatives, demonstrating the benefits when porting ISAC schemes to the optical domain. Stay tuned for our demo activities at upcoming conferences.

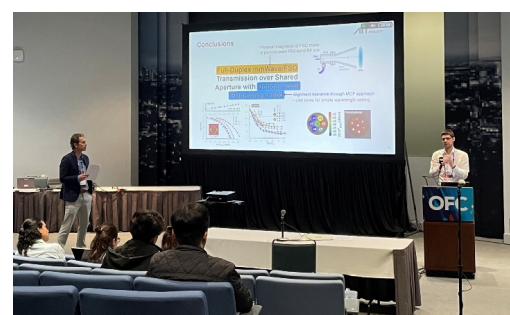
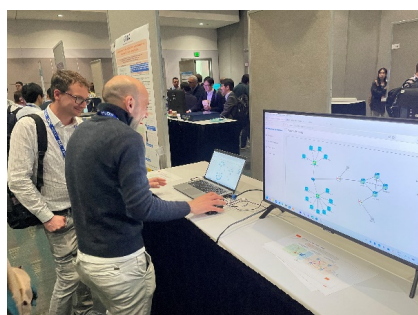


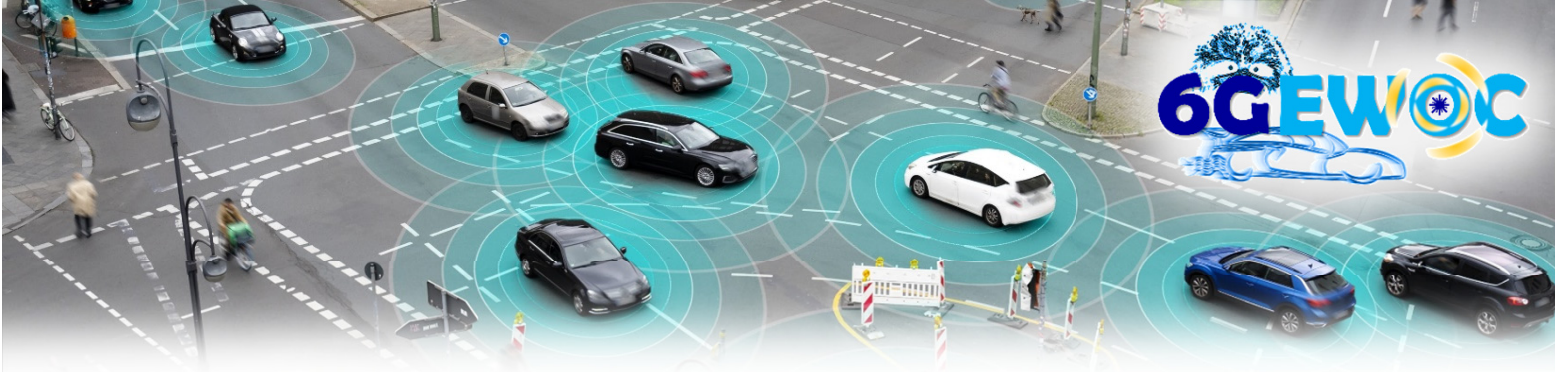
## High Noon at the OFC Conference in Los Angeles

6G-EWOC was well represented and highly active at this year's edition of the Optical Fiber Communication (OFC) conference, which with ~17,000 attendees marks the world-wide largest congress on optical telecommunications and datacenter technology.

First, Luca Vettori from CTC presented autonomous capacity scaling for metro-access networks via a hierarchical SDN controller – executed interactively and live from L.A. on CTC's Adrenaline test-bed during the demo zone. Moreover, Florian Honz from AIT presented results on a hybrid mm-wave / free-space optical link for robust over-the-air transmission with intrinsic alignment-tolerance.

At the exhibition show-floor, Bifrost Communications features quasi-coherent transceiver technology, which benefits greatly from its analogue nature while providing low-latency end-to-end connectivity.





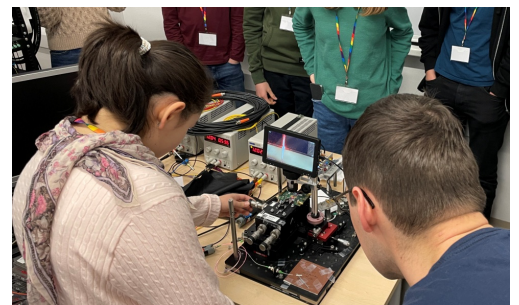
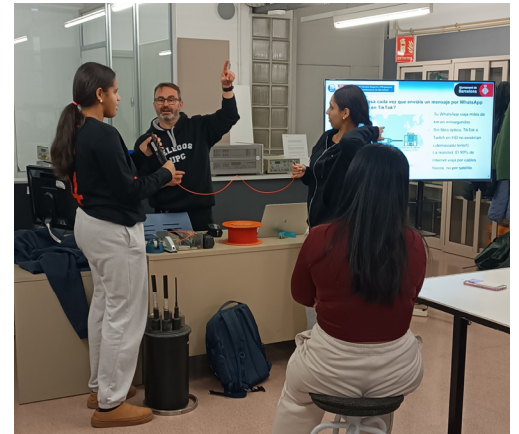
## Outreach Activity: How does 6G look like before it becomes available?

6G-EWOC researchers remain highly active when it comes to outreach activity in order to promote scientific and technical careers to young students. Our project coordinator José Antonio Lázaro had the pleasure to welcome a group of students to his lab at UPC in Barcelona, to demonstrate the nature of 6G as an enabler for emerging verticals and applications that will affect our daily life – while at the same time introducing fiber communications as the physical-layer technology that underpins modern telecommunications.

In parallel, researchers Bernhard Schrenk and Florian Honz were able to provide insights on 6G research to another group of students, who enjoyed their taster apprenticeships at AIT, Vienna. Besides learning about the notions of 6G in the context of ubiquitous connectivity, the students were able to see the world through the “digital eyes” of a LiDAR. Moreover, the students developed first skills in coupling visible light from a fiber waveguide to a photonic integrated beamformer circuit – a practical challenge that finds itself on the daily menu when conducting lab work involving novel device technologies.

We hope that the experiences made during these days will motivate the one or other of the students to choose a career path towards the STEM domain.

We were positively surprised by the high share of female students participating in these activities.



## Our Recent Publications

- F. Honz, M. Hentschel, and B. Schrenk, “Full-Duplex mmWave/FSO Transmission over Shared Aperture with Optical Focal Plane Array Feed”, in Proc. Opt. Fiber Comm. Conf. (OFC’26), Los Angeles, United States, Mar.-Apr. 2026, paper Th1E.1.
- L. Vettori, R. Martínez, Ramon Casellas, F. Vilchez, J.M. Fàbrega, R. Vilalta, and R. Muñoz, “Autonomous Capacity Scaling in Optical Metro Access Networks via Hierarchical SDN Control: A Demonstration”, in Proc. Opt. Fiber Comm. Conf. (OFC’26), Los Angeles, United States, Mar.-Apr. 2026, demo M3Z.10.

## Meet the 6G-EWOC Team

We are delighted to present further project results at three more spring conferences. Meet us at

- *European Conf. on Networks and Communications / 6G Summit, Malaga, Spain, 2<sup>nd</sup> – 5<sup>th</sup> of June*