



## Vilicom, BT and Top Universities Spearhead 5G and Artificial Intelligence Research

*Vilicom partners with BT and UK Universities in all-new scientific research project*

**Reading, UK – 11 November 2020:** UK-based wireless telecommunications provider, [Vilicom](#), has been awarded a grant alongside BT Labs and Bristol and Loughborough Universities that will enable participation in leading 5G and Artificial Intelligence (AI) scientific studies.

As part of the research grant, Vilicom, an experienced mobile communications system integrator, on the one hand will be working on the definition of business and technology use cases, with a strong focus on using AI for the creation of cognitive 5G networks implemented using Massive MIMO technology that automatically adapt to traffic patterns, user behaviour and external factors. Vilicom Data Scientists will be working on creating data structures, as well as the integration and development of AI algorithms for descriptive, prescriptive analysis of network operational and user quality of experience (QoE) data to support decision-making in planning network expansion and optimisation actions.

“This research grant is testimony to Vilicom’s competency in scientific technology innovation,” says Marc Ibanez, Vilicom’s Managing Director.

The research and development initiative will be led by Innovate UK, under the Celtic Next international framework and it is titled Artificial Intelligence-enabled Massive Multiple-input multiple-output (AIMM) project.

The objective of the AIMM is to consider potential applications of artificial intelligence in the 5G radio access network (RAN) mainly on improving the performance of Massive MIMO technology and marks an attempt to achieve ubiquitous access that will likely be a key technology forming the underpinnings of 5G and beyond. Two aspects will be considered: a bottom-up approach optimising the radio interface, enabling novel antenna structures and deployment techniques, and a top-down approach utilising AI to improve management and optimise the RAN at a system level.

In both applications, novel solutions will be identified and assessed; not only for the technical improvement they bring compared to existing techniques and architectures, but also for the achievable difference in cost and ease of implementation.

Adrian Sharples, BT’s Head of Wireless and Mobile Research, said: “We welcome the opportunity to work with the partners on this collaborative project, which will bring different perspectives to the use of Artificial Intelligence to optimise the mobile Radio Access Network. BT is ready to play our part and lead on defining the business models and use-cases for the AIMM consortium. We believe the innovative use of network performance data to enhance capacity and, increasingly, differentiate between services offered on the radio network will provide new benefits to customers.”

The expertise of Vilicom’s research and development team is already proven; with a legacy of continuous testing of 5G and AI technologies that have helped populate an invaluable body of knowledge aiding innovation in the field of mobile connectivity.

“This grant marks a huge step forward for Vilicom and solidifies the breadth of our technological capabilities,” says Marc Ibanez, Vilicom’s Managing Director.



“We’re delighted to be working with dedicated partners and look forward to not only sharing our decades of industry experience, but absorbing learnings from our partners and peers within the telecommunications sphere,” Ibanez added.

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For the year ended 31 March 2020, BT Group’s reported revenue was £22,905m with reported profit before taxation of £2,353m.

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