

## **“Impact of additional mid-band spectrum on the carbon footprint of 5G mobile networks: the case of the upper 6GHz band”**

**Authors: Janette Stewart, Sylvain Loizeau, Julia Allford**

**July 10<sup>th</sup> from 10:00 to 11:15 CEST**

Analysys Mason has recently [published a report](#) that considers the environmental impact of further mid-band spectrum assignment for mobile use.

Various studies on the implications of using additional mid-band spectrum to meet future wireless demand have been prepared, exploring: infrastructure deployment, financial viability, coverage, and quality of service. Despite the global movement to reduce carbon emissions, the scale of the impact of additional midband spectrum on the industry’s carbon footprint has not yet been assessed.

This study focuses on the carbon emissions of a 5G mobile network addressing future connectivity targets by 2030 through the availability of additional spectrum, compared to the network meeting the same future connectivity targets without additional spectrum. The analysis focuses on the mid-band spectrum, which is widely used for 5G today due to its ability to deliver both capacity and coverage. While the conclusions have relevance for mid-bands in general, some of the analysis and assumptions focus on the upper 6GHz band (6425–7125 MHz) which has attracted interest as a candidate band for 5G evolution.

The study also considers whether there would be an impact on the carbon footprint of Wi-Fi if the upper 6GHz band were used for wireless local area networks (WLANs) in addition to the existing frequency bands available for Wi-Fi in Europe.

During this webinar, the authors of the report will describe the assumptions, the methodology, and the key findings.

During the presentation, webinar attendees will be able to ask questions, which will be addressed during the final part of the session.

### **Agenda:**

#### **10:00 to 10:05 Welcome**

Sylvain Loizeau, Principal, Analysys Mason

#### **10:05 to 10:40 Analysys Mason Report Presentation**

Julia Allford, Consultant, Analysys Mason

#### **10:40 to 11:00 Q&A**

Sylvain Loizeau, Principal, Analysys Mason

Julia Allford, Consultant, Analysys Mason

Magnus Olsson, Principal Energy Efficiency, Huawei Technologies