Fraunhofer HHI

FRAUNHOFER HEINRICH HERTZ INSTITUTE

PRESS RELEASE

SES and Fraunhofer HHI broadcast live 360-degree panorama video via satellite with HEVC

At this year's IBC, SES S.A. and the Fraunhofer Heinrich Hertz Institute HHI will jointly broadcast a 10K x 2K panorama video signal live via satellite, for interactive presentation on Ultra HD televisions and VR glasses. They will be setting up Fraunhofer HHI's panorama camera OmniCam-360 at popular places in Luxembourg. The panoramic images will be sent to the satellite by an outside broadcast unit.

The panorama signal will be received at the SES IBC booth and shown on a UHD screen. Using a remote control, viewers will be able to navigate within the 360-degree panorama and zoom in or out. Thanks to Fraunhofer HHI's highly efficient HEVC encoder, it will be possible to compress the large amount of data of the panorama videos so that it can be efficiently broadcast via satellite.

Dr. Ralf Schäfer, Head of Division Video at Fraunhofer HHI, explains: "We intend for this demonstration to show that 360-degree video can be consumed by TV viewers even without VR glasses. We also want our camera and HEVC encoding technologies to show that 360-degree video can be broadcast to the consumer in high quality."

"For a reliable live broadcast of video content to millions of households, using the highest level of resolution, a geostationary satellite system is virtually unbeatable," says Thomas Wrede, Vice President of New Technology and Standards at SES Video. "We are pleased to work with Fraunhofer HHI, to try out new Direct-to-Home (DTH) applications such as 360-degree video."

Innovations for the digital society of the future are the focus of research and development work at the **Fraunhofer Heinrich Hertz Institute HHI**. In this area, Fraunhofer HHI is a world leader in the development for mobile and optical communication networks and systems as well as processing and coding of video signals. Together with international partners from research and industry, Fraunhofer HHI works in the whole spectrum of digital infrastructure – from fundamental research to the development of prototypes and solutions. www.hhi.fraunhofer.de

SES is the world-leading satellite operator and the first to deliver a differentiated and scalable GEO-MEO offering worldwide, with more than 50 satellites in Geostationary Earth Orbit (GEO) and 12 in Medium Earth Orbit (MEO). SES focuses on value-added, end-to-end solutions in two key business

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units: SES Video and SES Networks. The company provides satellite communications services to broadcasters, content and internet service providers, mobile and fixed network operators, governments and institutions. SES's portfolio includes ASTRA, O3b and MX1, a leading media service provider that offers a full suite of innovative digital video and media services. SES is listed on the Euronext Paris and Luxembourg Stock Exchange (ticker: SESG). Further information available at: www.ses.com

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