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COMMUNICATIONS

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Leading broadcast players successfully test live satellite contribution of 4k images

Live 4k end-to-end delivery chain ready to feed Ultra HD channels

Amsterdam, 12 September 2013 - Ericsson (NASDAQ:ERIC), Eutelsat Communications (Euronext Paris: ETL), Globecast, Newtec and SKY Italia today confirmed they have successfully completed a series of live tests proving the reliability of an end-to-end satellite-based delivery chain for contribution of live images in 4k.

With the success of these tests, the participating companies have demonstrated that the full satellite delivery chain is able to feed Ultra HD television channels, bringing positive implications for the quality of experience for viewers around the world who expect live coverage of news, sports and cultural events with the highest quality.

The 4k feed was produced by **SKY Italia** in Quad HD format (3480x2160) at 60 progressive frames per second (fps) using different camera brands and video mixers.

The live sequences from the mixers were then delivered in the form of a quadruple 3G-SDI signal to **Ericsson's** Content Acquisition solution. Using Ericsson AVP 2000 Contribution Encoders, that are able to provide true 4k Ultra HD contribution feeds, the signal was compressed in MPEG4 AVC at 60 progressive frame rates per second and 10-bit, 4:2:2 resolution.

The signal was then modulated by the **Newtec** AZ110 Satellite Modulator, using DVB-S2 16APSK Modulation, making 89 Mbit/s of throughput available over a conventional 36MHz Ku transponder on board the **EUTELSAT 5 West A** satellite located at 5°West.

The satellite uplink was performed and monitored by **Globecast** from one of its HD SNG trucks, equipped with a 1.5m antenna and 400W amplifier.

The feed was received in Milan and in Southampton with 2.4m antennas. Signal availability was higher than 99.97%. The sequences were then received via 4x Ericsson RX8200 Advanced Modular Receivers feeding a Quad HD professional display.

All partners collaborating on the demonstration were encouraged by the robustness and reliability of the 4k delivery chain. Live sports will be one of the major sources of content which will drive the uptake of 4k/Ultra-HD TV and this demonstration shows that operators, broadcasters and service providers can start building the ecosystems that will enable viewers to enjoy a truly immersive TV experience.

About Eutelsat Communications

With capacity commercialised on 32 satellites delivering reach of Europe, the Middle East, Africa, Asia, significant parts of the Americas and the Asia-Pacific, Eutelsat Communications (Euronext Paris: ETL, ISIN code: FR0010221234) is one of the world's leading satellite operators. As of 30 June 2013, Eutelsat's satellites were broadcasting more than 4,600 television channels to over 200 million cable and satellite homes in Europe, the Middle East and Africa. The Group's satellites also provide a wide range of services for TV contribution, corporate networks and fixed and mobile broadband markets. Headquartered in Paris, Eutelsat and its subsidiaries employ over 780 commercial, technical and operational professionals from 30 countries. www.eutelsat.com

For further information
Vanessa O'Connor

Tel: + 33 1 53 98 37 91

voconnor@eutelsat.fr

About GlobeCast (www.globecast.com)

A subsidiary of Orange, GlobeCast is a leading provider of media management and global content delivery services for broadcasters and content creators. With a secure fiber and satellite network connected to dozens of teleports, technical operations centers, and points-of-presence worldwide, GlobeCast manages and transports millions of hours of video and other rich media each year. An integrator of audiovisual technology and a full service provider, GlobeCast works with all the actors in the audiovisual chain from production companies to broadcasters, retail organizations, cinema chains, and more. The company provides on-site service from major news and sporting events for coverage in SD, HD, or even 3D. Present in Europe, the Americas, the Middle East, Asia, Africa, and Australia, GlobeCast is also an expert in international television markets, and works with new and established broadcasters to reach and secure distribution with leading pay-TV operators around the world.

Press Contacts:

New York - Matthew Rosenstein: matthew.rosenstein@globecast.com +1 212 332 2178

Paris - Bazeli Mbo: bazeli.mbo@globecast.com +33 1 5595 2604

Singapore - Hani Sallim: haniati.sallim@globecast.com +65 6325 4222

About Newtec

Newtec, www.newtec.eu, is specialized in designing, developing and manufacturing equipment and technologies for satellite communications. As a pioneer in the industry, Newtec is dedicated to creating new possibilities for the broadcast, IP trunking and backhauling, consumer and enterprise VSAT and government and defense markets. Our products and technologies can be applied in a wide range of applications from DTH broadcasting, video contribution and distribution and disaster recovery and backbones for backhauling, to small and medium enterprises, SCADA networks, manned and unmanned aircrafts, border control and Morale, Welfare and Recreation (MWR). For over 28 years, our dedicated team of specialists has set industry standards with the most efficient, scalable and economical technology solutions. New challenges and customer needs offer opportunities to explore new boundaries. This empowers us to work even harder, helping customers to perform their best so that, together, we can make the world a safer, more informed and connected place. As a result, more than 3 billion people watch TV every day thanks to Newtec technology. Newtec is a European company founded in 1985. Through commercial offices in Sint-Niklaas (Belgium), Dubai (UAE), Singapore, Beijing (China), Sao Paulo (Brazil) and Stamford, CT (USA) as well as an extensive network of over 80 certified partners, Newtec can meet customer's needs worldwide.

For further information

Kerstin Roost Tel: +49 30 430 95 562 kerstin.roost@newtec.eu

About Sky Italia

Sky Italia is the Italian pay TV platform wholly owned by 21st Century Fox. Born in 2003, its customer base has grown very quickly and in June 2013 the subscribed families have reached 4 million 760 thousands. Sky currently offers more than 180 thematic and pay per view channels, with a rich offering of movies, sports, news, entertainment and kids programming. Sky was the first Italian television to broadcast in HD and live in 3D, and offers a pack of 60 HD channels and one channel entirely dedicated to 3D programs. Moreover, My Sky HD makes it possible to easily record one's favorite programs and to access the Sky On Demand service, whereas with Sky Go subscribers can watch on the move a wide selection of Sky's channels and on demand contents.

For more information, please visit the website: www.sky.it.