Use Cases

Latin America hosts a large number of telescopes and astronomy observatories; these collect vital data for research initiatives and efforts within the region and in Europe.

Recent examples of how such infrastructures contribute to our understanding of the universe, include the discovery and observation of the merger of two neutron stars in an event known as a "kilonova" and the discovery of "Oumuamua", the most elongated asteroid known to science. In both cases, observations made in Chile were fundamental for the researchers' interpretation of the occurred events.

In the coming years, the exchange of astronomyrelated data between the two regions is forecast to increase significantly. Other vital areas of collaboration for European and Latin American researchers that will increase connectivity requirements between Europe and Latin America include high energy physics, environment research, food sustainability, meteorology, and the arts.

BELLA will ensure that the required connectivity is in place for the next 25 years to meet the ever increasing needs of Research & Education networking collaboration areas. www.bella-programme.eu @BELLA_Programme

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Connecting European and Latin American R&E for the next 25 years



BELLA (Building the Europe Link with Latin America) provides for the long-term interconnectivity needs of European and Latin American Research & Education communities. It achieves this through two complementary and interdependent activities: BELLA-S and BELLA-T.

BELLA-S has secured access for 25 years to spectrum on a new direct submarine cable, EllaLink, between Latin America and Europe. The EllaLink cable will be constructed over a period of two years and will be operational in 2020. BELLA spectrum will be deployed on EllaLink as required by the connectivity needs of the two regions. Initially GÉANT and RedCLARA will be interconnected at 100Gbps, and an additional 100Gbps link will be specifically implemented to support the connectivity needs of the Copernicus Programme.

BELLA-T completes the terrestrial optical fibre backbone of RedCLARA, which interconnects NRENs in Latin America. The new network built by BELLA-T will provide a 100Gbps-capable backbone, and through synergies with Latin American NREN,s it will enhance capillarity and equal access to regional and intercontinental services by all Latin American users. BELLA is implemented by a Consortium of Regional Research and Education Networks -GÉANT (Europe) and RedCLARA (Latin America)and the National Research and Education Networks (NREN) of Brazil, Chile, Colombia, Ecuador, France, Germany, Italy, Portugal and Spain. The Consortium is chaired by RedCLARA and GARR.

Funding for BELLA is provided by the European Union through three European Commission (EC) Directorates (DG CONNECT, DG DEVCO and DG GROWTH) and by the Latin America NREN community.

Impact

BELLA will vastly enhance the opportunities for research and academic collaboration between Europe and Latin America, as well as within Latin America. It will do so by enabling researchers and academics to share their data at ever increasing speeds, and also by accessing, via trusted identity federations, a range of services provided by Research & Education Networks, including collaboration tools and cloud services, supercomputing facilities, etc.

