

## Technological innovation pilot project

### The Red Eléctrica Group creates satellite connectivity bubbles on high-voltage towers to combat the digital divide

- Hispasat, Red Eléctrica de España and Elewit have demonstrated that satellite communication terminals can be installed on high-voltage towers to roll out connectivity bubbles in rural environments in order to contribute to bridging the digital divide in Spain.
- The project has made it possible to test the proper operation of satellite communication terminals in the highly unique electromagnetic environment associated with high-voltage power towers.

Madrid, 19 October 2021

The Red Eléctrica Group, through Hispasat (the Spanish telecommunications operator), Red Eléctrica de España (the transmission agent and operator of the Spanish electricity system) and Elewit (the Group's technology platform), has carried out a pilot project at Red Eléctrica's substation in Galapagar (Madrid) to demonstrate the viability of using high-voltage electricity infrastructure to provide satellite connectivity that extends cellular and broadband coverage in rural or remote environments through which the Company's electricity transmission lines run through.

In this way, the three-month long pilot project has allowed the proper operation of satellite terminals to be tested in the highly unique electromagnetic environment associated with high-voltage power towers. In addition, it has been possible to verify that the generation of isolated photovoltaic electricity from solar panels can be a suitable power source for these communication terminals.

Thanks to this project, it has been demonstrated that satellite communication terminals can be installed on Red Eléctrica's high-voltage towers which, as a highly meshed power grid, offers enormous capillarity throughout Spain, to deploy connectivity bubbles in rural environments that contribute to bridging the digital divide and implement solutions linked to activities generally carried out in rural scenarios, such as crop and livestock control or fire prevention. Following these conclusions, work is already underway to define a new pilot project aimed at analysing the viability of this model in order to create 4G/5G bubbles via satellite on high-voltage towers.

This initiative is proof of the many possibilities that Hispasat's satellite fleet offers to help bridge the digital divide in Spain by ensuring connectivity in every region, including those areas where other communications infrastructure cannot reach. The operator has universal coverage over 100% of the country, which allows it to provide connectivity to any point in the country and thus promote digitisation in remote areas, which is the basis for enabling adequate communication coverage for citizens at large and guaranteeing the digitisation of society without leaving anyone behind.

Digital connectivity enables the rural world to access a wide variety of solutions, such as high-speed broadband and the digitalisation of universal rights such as education and healthcare, and also facilitates the development of sectors such as agri-food and forestry, as well as access to the Public Administration, avoiding the need to travel and facilitating procedures for citizens living in rural areas. Elewit, for its part, carries out intense technological



monitoring work, coordinating innovation within the Group and analysing and detecting the optimal solutions in each case.

#### **About HISPASAT**

HISPASAT is the leading satellite infrastructure operator in Spain and a driving force for innovation in the aerospace sector. It is the main communications bridge between Europe and the American continent as a provider of broadband and connectivity services in the American continent, Europe and North Africa through its companies in Spain and Latin America, where its Brazilian subsidiary HISPAMAR is located. It is a leader in the broadcasting and distribution of audio-visual content in Spanish and Portuguese, including the transmission of major digital Direct-to-Home (DTH) and High-Definition Television (HDTV) platforms. These activities make it one of the world's leading companies by revenue in its sector and it is part of the Red Eléctrica Group.

More information: [www.hispasat.com](http://www.hispasat.com)

#### **About Elewit**

Elewit is the technological platform of the Red Eléctrica Group. It was set up in 2019 with the aim of offering solutions to the new challenges of the electricity and telecommunications sectors. With one goal: to drive the energy transition and improve connectivity to create a sustainable future. To this end, Elewit focuses its activity on the following six areas of impact: citizen centricity; transmission and accessibility of information; renewable energy and flexibility in the operation of the electricity system; the electrification of society; development and the smart management of assets; and cybersecurity as a cross-cutting area.

More information: [www.elewit.ventures](http://www.elewit.ventures)