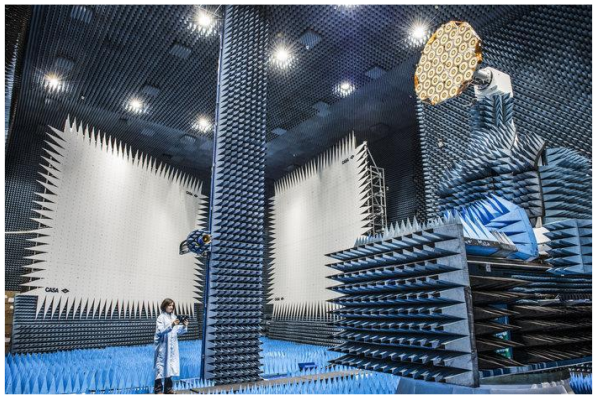
**Media Lario to produce Compact Range Reflectors for the new ESA radio frequency test facility**

Bosisio Parini, Italy, 9 May 2023

Media Lario S.r.l. has been awarded a contract by the European Space Agency (ESA) to supply and install the Compact Range Reflectors (CRR) for the new radio frequency (RF) test facility, previously called HERTZ (Hybrid European RF and antenna Test Zone). The new RF test facility will allow high accuracy end-to-end antenna and satellite testing in a broad frequency range, from 1 GHz up to several hundred GHz. The existing facility is currently used for RF testing primarily for antennas and space related components.

The Compact Range Reflectors are a critical component of the new RF test facility. They represent the heart of the far field test system as they will allow converting a spherical wave into a plane wave, which is needed for testing antennas, satellites and payloads in far field conditions simulating the space environment. The CRR will be composed of two large surfaces, each the size of a 6-story building which will be manufactured and aligned to micrometric (1/1000 of a millimetre) accuracy. The CRR panels will be made using Media Lario's proprietary and patented Repli-formed Optics™ technology.



*A navigation antenna under test in the HERTZ facility (credit: ESA).*

Media Lario is a leader in the manufacture of large light-weight high specification reflective optics and antennas. The company's Repli-formed Optics™ technology is already in use in leading Space Telescopes such as the ESA XMM-Newton and NASA JPL's ASTHROS TeraHertz space telescope. It is also used for large ground-based radio-telescopes such as Atacama Large Millimetre Array (ALMA) in Atacama, Chile and the Large Millimeter Telescope (LMT) in Mexico. Repli-formed Optics™ technology is critical for applications where high precision and replicability are key features without adding significant mass to a structure.

Jeff Lyons, CEO of Media Lario, said, "We are grateful, yet again, for the trust placed in our technical team by the European Space Agency. Producing high specification components at scale and volume is the focus of our technology and this new RF test facility is a key validation of the intense R&D effort we have placed behind the Repli-formed Optics™ technology."

Media Lario is located north of the industrial hub of Milan, Italy, in the region of Lombardia and Lake Como, an area rich with heritage and expertise in the precision optical mechanical industry.

For more information on the current ESA HERTZ facility, please visit:
https://www.esa.int/Enabling_Support/Space_Engineering_Technology/Antenna_Laboratory

For more information on Media Lario S.r.l., please visit:
http://www.medialario.com/

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**Note:** The view expressed herein can in no way be taken to reflect the official opinion of the European Space Agency.