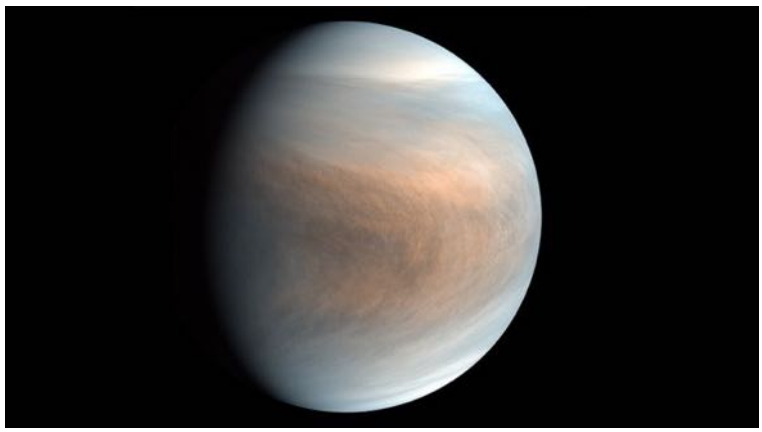
18 September 2020 – Media Lario's technology used in the discovery of phosphine on Venus

Bosisio Parini, Italy, 18 September 2020 – Media Lario S.r.l. congratulates the team at the ALMA Telescope Array in Atacama Chile and the entire scientific team involved in the discovery of phosphine in the atmosphere of Venus indicating the possibility of life on our neighbouring planet, as was announced on 13 September in published scientific papers submitted to the *International Journal of Astrobiology*.

Astronomers working together from several universities, including the University of Cardiff (UK), Cambridge University (UK), the University of Manchester (UK) and the Massachusetts Institute of Technology (MIT) have detected a spectral, or light-based, indication of phosphine in Venus's atmosphere. Scientists had previously shown that if this gas were ever detected on a rocky, terrestrial planet, it could only have been produced by a living organism. Therefore, the detected presence of this chemical is an exciting prospect.



Venus (credits: JAXA/ISAS/AKATSUKI PROJECT TEAM)

The researchers made the detection initially using the James Clerk Maxwell Telescope (JCMT) in Hawaii. Later, they followed up their observations for confirmation with the Atacama Large Millimeter Array (ALMA) observatory in Chile.

ALMA radio telescopes observatory (credits: ESO)

Media Lario manufactured light-weight Nickel laminated optics using our patented Repli-formed Optics™ process for the full telescope array of the ALMA observatory. Over 3000 panels of over several square meters in size were made to precise shape and surface specifications using a layer of nickel surface coating only a small fraction of a millimeter in thickness. Repli-formed Optics™ is a fast, replicable optical manufacturing process, resulting in high-spec optics which are light weight and qualified for harsh environments.

Jeff Lyons, CEO of Media Lario, commented, "Media Lario's Repli-formed Optics™ process, developed over three decades of research and development, is ideally suited to bring high performance and sensitivity to terrestrial radio telescopes while reducing their weight and enhancing their operation. Working flawlessly now for many years in the Atacama Desert, we are so happy to see our optics continue to perform well.

More importantly, the results obtained by the talented team at ALMA, following on from their participation in the Event Horizon Telescope which captured the first ever image of a black hole, are yet another amazing feat of deep scientific research. We are filled with admiration and feel very fortunate to have played a part in this. This is what we all hope for as the result of our efforts. We offer our congratulations to the entire scientific team who participated in this discovery and wait with anticipation for the follow up studies."

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For more info about the ALMA Telescope Array, please visit www.almaobservatory.org
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