

Press contact:
Florence Lievre
Tel: + 33 1 47 54 50 71
Email: florence.lievre@capgemini.com

Capgemini collaborates with The University of California, Berkeley to accelerate time to market of new materials

The collaboration will build methods and tools to discover new material surface structures to accompany the deployment of sustainable manufacturing.

Paris, February 02, 2023 – [Capgemini](#) announced today the launch of a research collaboration with [The University of California, Berkeley](#), focused on building new methodologies and tools to discover material surface properties. Investigators seek to meet increasing needs for sustainable manufacturing and accelerate the time to market of new materials.

Capgemini will work in collaboration with the university's ecosystem to develop innovative technologies, thought leadership, and assets, to help future proof engineering services. These joint efforts are designed to harness the power of technology and enhance capabilities in Intelligent Industry¹.

For this project, focused on '*Laser Processing for Accelerated Optical Materials Discovery*,' Ramon Antelo, Chief Technology Officer for Manufacturing and Industrial Operations at Capgemini Engineering, along with other experts at Capgemini will join forces with a team of advanced researchers supervised by Professor Vassilia Zorba, Department of Mechanical Engineering at UC Berkeley. This collaboration will leverage the advances in AI, nanomaterials and laser technologies to create a set of methodologies, tools and labs that will reduce the time to market of new materials.

Among different advanced material fabrication technologies, ultrafast laser processing plays a central role in creating unique material properties, with cross-cutting applications such as energy harvesting, antibacterial and water-repellent surfaces, anti-corrosion, robust materials under extreme conditions, nuclear security missions, etc.

"Removing human intuition and intervention from the materials discovery process has been a long-standing challenge in the goal of accelerating the rate at which novel materials are found," said Vassilia Zorba, Professor Department of Mechanical Engineering at UC Berkeley. *"Emerging capabilities such as state-of-the-art ultrafast laser technologies, automation, and the advent of machine learning are now bringing us a step closer to this goal. We are very excited to work with Capgemini and use these capabilities to screen thousands of materials and surface topologies in a high-throughput rate, in order to develop materials that lend themselves to cross-cutting energy applications."*

"Accelerating the use of sustainable manufacturing is crucial to help meet sustainability goals. Improving the performance of material is one of the key elements for this to happen," stated William Rozé, CEO of Capgemini Engineering and Group Executive Board Member. *"We are extremely proud to launch a new collaboration program with UC Berkeley to tackle this important challenge within Intelligent Industry."*

¹ 'Intelligent Industry' is the new era of digital transformation: characterized by a growing convergence of the physical and virtual worlds - product, software, data, and services - across all industries; and fueled by the rapid development of technologies, including cloud, artificial intelligence (AI), internet of things (IoT), edge computing and 5G.



Innovation is at the core of our DNA, and this new program will further nurture our research program strategy.”

About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of over 350,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2021 global revenues of €18 billion (about \$21 billion USD at 2021 average rate).

Get The Future You Want | www.capgemini.com