



INSA INSTITUT NATIONAL
DES SCIENCES
APPLIQUÉES
LYON

Université Claude Bernard



PRESS RELEASE

March 20, 2023

MORE SUSTAINABLE MATERIALS: THE CHALLENGE OF THE NEW JOINT LABORATORY MATILDE

The CNRS, INSA Lyon, Claude Bernard University of Lyon 1 (UCBL) and Saint-Gobain have joined forces to create MATILDE, the joint laboratory dedicated to the study of inorganic materials and their damage mechanisms in their use environment. The aim is to improve the service life of these materials and their carbon footprint. To meet this challenge, this off-site laboratory will bring together experts in materials science from academic and industrial research.

The MATEIS¹ (INSA Lyon/UCBL/CNRS) and LAMCOS² (INSA Lyon/CNRS) laboratories, and three Saint-Gobain research centers - Saint-Gobain Research Provence, Saint-Gobain Research Compiègne and Saint-Gobain Research Paris - are combining their expertise to create the joint off-site laboratory MATILDE, for inorganic **MAT**erials: Innovative strategies to contro**L** the **D**amage.

Set up for 5 years, MATILDE aims to learn how to control damage of the materials in different environments by developing advanced methods for identifying damage and innovative strategies for designing the material and its microstructure. Its originality lies in the combination of skills in materials, their shaping processes at the laboratory or industrial pilot scale, their microstructural characterization on the one hand, and skills in numerical simulation on the other.

"This collaboration with CNRS, INSA Lyon and UCBL will contribute to the development of more efficient materials, while reducing their carbon footprint and the use of the planet's resources. It is therefore in line with Saint-Gobain's sustainable innovation strategy," said Anne Hardy, Saint-Gobain's Director of Innovation.

This joint laboratory strengthens the historical links and cooperation already active between the partners. For example, Saint-Gobain, a sponsor of the INSA Lyon Foundation, is supporting the development of INSA Lyon's training programs, particularly in the areas of sustainable development, social responsibility and digital technologies, as part of the "Materials for a Sustainable World" training chair. Saint-Gobain also has a number of active joint research structures with the CNRS, such as the CANOPEE laboratory created in 2020, which focuses on reducing the carbon footprint of high-temperature manufacturing processes.

"The CNRS is proud to contribute alongside its partners to the creation of the MATILDE joint laboratory. This is an additional asset for providing answers to the ecological challenge. This partnership will also strengthen the strong and fruitful links on this subject with Saint-Gobain, leader in light and sustainable construction. MATILDE will provide a structuring and long-lasting collaboration framework to study the damage of inorganic materials and thus improve their service life", declared Jean-Luc Moullet, Deputy Director General for Innovation, CNRS.

"This new joint laboratory with Saint Gobain will enable us to conduct long-term research, from upstream to applied work in response to scientific, societal and environmental challenges. Saint-Gobain can thus benefit from the scientific excellence of two internationally recognized laboratories in materials science and contact and structure mechanics, MATEIS UMR CNRS 5510 and LaMCoS UMR CNRS 5259. This joint laboratory is completely in line with the institution's strategy, within the Energy, Environmental, Ecological Transition and our research strategy which promotes a systemic approach to explore issues by combining the disciplinary skills of several laboratories", said Marie-Christine Baietto, director of research and development at INSA Lyon.

ABOUT SAINT-GOBAIN

Worldwide leader in light and sustainable construction, Saint-Gobain designs, manufactures and distributes materials and services for the construction and industrial markets. Its integrated solutions for the renovation of public and private buildings, light construction and the decarbonization

of construction and industry are developed through a continuous innovation process and provide sustainability and performance. The Group's commitment is guided by its purpose, "MAKING THE WORLD A BETTER HOME".

€51.2 billion in sales in 2022

168,000 employees, locations in 75 countries

Committed to achieving Carbon Neutrality by 2050

For more information about Saint-Gobain, visit www.saint-gobain.com and follow us on Twitter [@saintgobain](https://twitter.com/saintgobain)

ABOUT THE CNRS

The French National Center for Scientific Research is one of the most recognised and renowned public research institutions in the world. For more than 80 years, it has continued to attract talent at the highest level and to nurture multi-disciplinary and interdisciplinary research projects at the national, European and international levels. Geared towards the public interest, it contributes to the scientific, economic, social and cultural progress of France. The CNRS is above all 33,000 women and men, more than 1,000 laboratories in partnership with universities and other higher education institutions bringing together more than 120,000 employees and 200 professions that advance knowledge by exploring the living world, matter, the Universe, and the functioning of human societies. The CNRS ensures that this mission is carried out in compliance with ethical rules and with a commitment to professional equality. The close relationship it establishes between its research missions and the transfer of acquired knowledge to the public makes it today a key player in innovation in France and around the world. Partnerships with companies are at the heart of its technology transfer policy, and the

start-ups that have emerged from CNRS laboratories bear witness to the economic potential of its research. The CNRS provides also access to research findings and data, and this sharing of knowledge targets many audiences: scientific communities, the media, decision-makers, economic players and the general public. For more information: www.cnrs.fr

ABOUT INSA LYON

National Institute of Applied Sciences of Lyon - INSA Lyon is a leading engineering school with strong humanist values that have formed engineers to meet the socio-ecological and digital challenges of an ever-changing world. Each year, INSA Lyon welcomes more than 6,000 students, 600 doctoral students and graduates more than 1,000 engineers and 150 doctors. A school open to the world, INSA Lyon has formed a network of more than 200 academic partners on 5 continents and has nearly 100 different nationalities on its campus. Committed to social openness and diversity, INSA Lyon leads a very active policy in this area through its Gaston Berger Institute. The School also develops research of excellence, responsible and united, based on 22 laboratories. Created in 1957 by philosopher Gaston Berger and Rector Jean Capelle, INSA Lyon is the oldest and largest of the 7 schools making up the INSA Group and 6 partner schools in France.

ABOUT THE CLAUDE BERNARD LYON 1 UNIVERSITY

The Claude Bernard Lyon 1 University of Science, Technology, Health and Sport has more than 46,500 students and has been offering excellent training and cutting-edge research in an attractive environment for 50 years. The 5,000 staff members who make up the University work every day to provide a demanding educational program that is as close as possible to the reality of research, and is supported by 2,800 teacher-researchers. Its staff is also involved on a daily basis in the development of quality research, conducted in 62 laboratories with unique equipment. Lyon 1 is also an innovative university that has seen the creation of 72 start-ups since 2011. Lyon 1's research is interdisciplinary and focused on the major societal issues of our time, and is helping to advance science in France and internationally.

Media contacts:

- **For SAINT-GOBAIN**

Patricia Marie : +33 1 88 54 26 83

Laure Bencheikh : +33 1 88 54 26 38

Susanne Trabitzsch : +33 1 88 54 27 96

- **For the CNRS**

Océane Piquet, +33 1 44 96 51 37 et oceane.piquet@cnrs.fr

- **For INSA LYON**

Ophélie Tambuzzo, +33 4 72 43 72 06, ophelie.tambuzzo@insa-lyon.fr,

- **Pour the Université Claude Bernard Lyon 1**

Béatrice Dias, +33 6 76 21 00 92, beatrice.dias@univ-lyon1.fr