



## PRESS RELEASE

### **PIRELLI AND THE UNIVERSITY OF MILAN-BICOCCA RENEW PARTNERSHIP IN CORIMAV FOR RESEARCH INTO ECO-FRIENDLY MATERIALS AND PROCESSES**

**Over 20 years, Corimav has funded 55 doctoral scholarships and deposited 24 patents on innovative materials and processes. Another 18 Doctoral Scholarships foreseen in the next 6 years**

**Joint research has already led to the market launch of tyres with more sustainable materials such as lignin and nano-silicates (SmartNet Silica)**

*Milan, 14 February 2023* – More than two decades after the birth of CORIMAV (Consortium for Research on Advanced Materials), the University of Milano-Bicocca and Pirelli have extended the collaboration for another 6 years. To date, 55 doctoral scholarships have been funded and awarded by the consortium, a collaboration born with the aim of developing cutting-edge technologies in the field of materials, supporting research and experimentation activities for patenting purposes, as well as promote training and professional updating initiatives for young researchers.

#### **TOWARDS INCREASINGLY ECO-FRIENDLY MATERIALS AND PRODUCTION PROCESSES**

This joint activity that will continue through the funding 18 new PhD scholarships for research activities aimed at projects focused on sustainability, through studies relating to new materials obtained from renewable sources and new materials obtained from agro-industrial waste products, innovative solutions to lower the environmental impact of the tyre production process and improve the environmental degradability of the tyre from a circular economy perspective.

#### **INTRODUCTION OF LIGNIN AND NANO-SILICATES (SMARTNET SILICA) INTO TYRES**

For example, CORIMAV's research led to the patent that resulted in Pirelli using lignin in the production of bicycle tires and soon also in some specifications for cars. Lignin is a natural material deriving from waste biomass and with intrinsic antioxidant properties which, with appropriate chemical-physical modifications, improves the mechanical properties of the tire and allows the replacement of synthetic materials of fossil origin. A second example of the research carried out by CORIMAV is the patenting of nano-silicates (SmartNet Silica), a particular silica which, when used in a compound, delivers high performance grip and smoothness on dry and wet surfaces. In addition, this improves the mechanical resistance of the tread, which enhances protection against punctures and the useful life of the tyre, as well as optimizing rolling resistance.

## EUROPEAN BEST PRACTICE

CORIMAV was included in 2018 in the Final Report of the *European Commission Study on Fostering Industrial Talents in Research at European Level* which focuses on the promotion of inter-sectoral mobility (Ism, Inter-sectoral mobility) and reports examples of good practices for each country of the Union. A recognition that testifies to the attention of the institutions and the European Union to a path that manages to transform the fruits of research into products of commercial interest with ever greater attention to the development and dissemination of more environmentally friendly solutions. A virtuous process of continuous exchange of knowledge between industry and universities, which leads to the consolidation of learning and development methods, with an enhancement of the growth paths of young researchers which can also quickly set them on career paths in companies, including Pirelli.

## OVER 20 YEARS OF RESEARCH AND 24 PATENTS FILED

In 2001, Pirelli and the University signed the agreement to create CORIMAV starting with research mainly in three sectors: nanocomposite materials, energy transmission (superconductivity and distributed generation) and molecular modeling. More recently, research has focused on the tyre sector, an area in which Pirelli's activity has also concentrated, with particular attention to eco-sustainable materials.

In over 20 years of activity, CORIMAV has filed 24 patent applications, 12 of which in the period 2017-2022. The Consortium was initially chaired by Prof. Marcello Fontanesi, followed by Prof. Cristina Messa and now Prof. Giovanna Iannantuoni, while the role of director has always been covered by Enrico Albizzati (former CEO of Material Innovation of Pirelli Labs and currently Scientific Advisor of Pirelli).

**Giovanna Iannantuoni, rector of the University of Milano-Bicocca**, said: *"We are pleased to continue this collaborative activity. The role of research is decisive for achieving the ecological transition. Bicocca is at the forefront of research into new materials and energy saving, with a view to sustainability understood in its broadest sense. Furthermore, the relationship with the business world brings concrete advantages to both universities and companies, as demonstrated by the results obtained so far thanks to the activity of the CORIMAV Consortium".*

**Marco Tronchetti Provera, Executive Vice Chairman and CEO of Pirelli**, said: *"The Pirelli-Bicocca University Consortium demonstrates how important and virtuous the collaboration between companies and universities can be, triggering processes and methodologies for ever greater environmental sustainability. A continuous exchange of knowledge aimed at the reciprocal training of researchers in order to improve the product and stimulate continuous innovation".*

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