

PRESS RELEASE

Kick-off ceremony for POLICAP, the new mobile CO₂ capture unit of the Politecnico di Milano

The research infrastructure, funded by the PNRR within the framework of the national ECCSELLENT project, will develop innovative solutions for the decarbonisation of the industrial sector

Milan, 06 May 2026 – A step forward towards reducing carbon dioxide emissions. **POLICAP, the mobile pilot plant for CO₂ capture with solvents of the Politecnico di Milano**, was inaugurated today in Piacenza. The project was presented during the fourth leg of the 2026 City Vision Roadshow, the Italian smart city community, an event dedicated to “*Transformative Energies*”. At the ribbon-cutting ceremony, together with the Rector of the Politecnico di Milano **Donatella Sciuto**, were the Mayor of Piacenza, **Katia Tarasconi**, and **Vincenzo Colla**, Vice-President of the Emilia-Romagna Region.

POLICAP is an advanced research infrastructure, developed by the Department of Energy-DENG of the Politecnico di Milano, funded by the PNRR within the framework of the national ECCSELLENT project, whose laboratories are part of the European ECCSEL-ERIC network and aimed at developing CCUS technologies – that is Carbon Capture, Utilization and Storage, which are essential for reducing industrial emissions. Specifically, POLICAP is **an engineered pilot unit, designed for investigation in CO₂ capture through solvent-based absorption**: in addition to state-of-the-art solvents and processes, **the pilot is meant also to test new components, processes and solvents** that are potentially more energy efficient, economically competitive and environmentally sustainable. **The other innovative aspect is its mobility**: the transportable configuration will allow installation at real industrial sites, making it possible to operate both with synthetic gases and with emission streams from existing production plants.

Among the objectives: demonstrating the possibility of achieving high CO₂ capture efficiencies; carrying out performance tests representative of existing industrial applications, thanks to a unit equipped with advanced scientific instrumentation; studying the scale-up and industrialisation of CO₂ capture also through advanced digital models. **The pilot was conceived, designed and will be managed by a team from the Department of Energy of the Politecnico di Milano, led by Professors Manuele Gatti and Matteo Carmelo Romano, and including researchers Valeria Venturelli, Antonio Conversano and Riccardo Cremona**. An important partnership was established with **LEAP – Laboratorio Energia Ambiente Piacenza**, an energy and environmental research centre founded and participated in by the Politecnico di Milano, which contributed to the installation of the unit.

«With POLICAP we strongly reaffirm that the green transition is no longer negotiable: it is a strategic priority, also supported by significant investments such as those of the PNRR, and represents a decisive lever for the competitiveness of one of the most advanced industrial systems in Europe –

comments **Donatella Sciuto**, Rector of the Politecnico di Milano – The Politecnico di Milano, together with the Municipality of Piacenza and LEAP - Laboratorio Energia Ambiente Piacenza, constitutes a centre of excellence for energy and ecological transition. The city establishes itself as a place where research meets application: here technologies are developed, tested and transferred to companies, institutions and the local area».

«The opening of POLICAP – underline Mayor **Katia Tarasconi** and Councillor for University and Research **Francesco Brianzi** – stems from the joint work of multiple institutions. To all the partners who collaborated and to the professionals who made this project possible, we extend our thanks for bringing to our Technopole valuable expertise on a decisive issue: reducing emissions and supporting the ecological transition. For us, this confirms a clear direction: building a city, Piacenza, capable of bringing together universities, research, environmental sustainability and the production system, transforming national and European opportunities into projects useful for the local area and for new generations. This day also gives shape to a precise trajectory for “Piacenza City of Universities”. The City Vision Roadshow leg, within the framework of the Regional Law Talents, provided space for a national discussion on energy, environment, sustainability and young people; with POLICAP we see those same words translated into applied research. And the context adds further value: the Portaluppi pavilion of the former Centrale Elettrica Emilia will undergo redevelopment thanks to the Infrastructure Call of the Emilia-Romagna Region for the expansion of the Technopole. Public debate, PNRR investment and ERDF intervention come together in the same path: strengthening talents, skills, applied research and innovation in Piacenza, in line with the 2030 Agenda».

Domenico Lanzilotta, City Vision’s Director, while coordinating the morning event also highlighted how innovation and the local area find their connection in the solutions proposed by the Politecnico di Milano’s cutting-edge research, ready to be tested in the field, thus confirming how vital the dialogue among universities, institutions and companies is in accelerating the energy transition of cities.

ECCSELLENT – TECHNICAL DATA:

PNRR intervention area: Mission 4 – Education and Research, COMPONENT 2 “From research to business”, INVESTMENT 3.1 – Fund for the creation of an integrated system of research and innovation infrastructures (infrastructures and research). Partnership: National Research Council (CNR); ENEA; Politecnico di Milano; University of Bologna; National Institute of Oceanography and Experimental Geophysics.

[LINK TO THE PHOTOGALLERY](#)

[LINK TO POLICAP’S TECHNICAL DATA](#)

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