



**Finanziato
dall'Unione europea**
NextGenerationEU

Sens-In – EVOCATION Project

As part of the National Recovery and Resilience Plan (PNRR), Sens-In is taking part in the EVOCATION research program (Cost-effective Innovative Sensors for Monitoring Diagnostic Parameters and Machinery Load Conditions), funded by the European Union via NextGenerationEU.

The project aims to develop maintenance techniques based on advanced monitoring, diagnostics, and predictive tools, with a focus on three strategic objectives:

- Deploying cost-effective next-generation sensors for monitoring physical quantities like strain, load, vibration, and lubricant condition, which are poorly addressed by current technologies.
- Identifying innovative industrial applications for these sensors and defining experimental setups and testing protocols.
- Developing analysis methodologies that combine artificial intelligence, signal processing, and physical modeling.

Sens-In's contribution is to bring and test its smart bolt technology across four high-value industrial use cases:

- Hot forging machines
- Automated machinery
- Industrial gear reducers
- Oil & Gas valves

Launched in December 2023, the EVOCATION project is funded by the European Union – NextGenerationEU, through a BI-REX call issued in June 2023. Partners include Bonfiglioli, Poggipolini, SACMI, Velan ABV, E.S.T.E., Sanchip, Selcom Group, and ISE, with academic involvement from CIRI ICT (University of Bologna) and IN4 Hub (University of Ferrara).

BI-REX is one of eight National Competence Centers initiated by Italy's Ministry of Enterprises and Made in Italy. It is a public-private consortium focused on Big Data and brings together 60 top institutions and companies specializing in cutting-edge technology.