DATA SCIENCE FOR RESILIENCE:
NEW COLLABORATION BETWEEN TERNA
AND TWO START-UPS

Eoliann and Fast Computing were chosen from 10 finalists in the first Terna Ideas open innovation platform challenge

New digital solutions are under development for an even more efficient and resilient grid

Rome, 17 October 2023 — Eoliann and Fast Computing are the two innovative start-ups chosen to work with Terna at the end of the Data Science for Resilience challenge. The call was launched in December 2022 to find digital solutions to improve the resilience of the Italian power grid which consists of approx. 75,000 km of high and extra-high voltage power lines and more than 900 power substations across Italy.

Terna, led by Giuseppina Di Foggia, launched its first ever Data Science for Resilience call on the Terna Ideas open innovation platform, with 71 start-ups electing to participate. Applicants proposed AI-based solutions to further improve the predictive maintenance and monitoring of electricity infrastructure. The goal is to make the system more secure and efficient with the prospect of increasingly frequent and extreme weather events.

On Demo Day, which took place in May, the 10 finalists presented their projects. After careful evaluation, Terna's innovation Team and colleagues from other business lines chose two start-ups to partner with to begin testing their solutions in the real world.

Terna then hosted them at its innovation spaces to begin exploring the use cases, goals, performance indicators, and duration of each project.

Massimiliano Garri, Executive Vice President for Innovation & Market Solutions at Terna commented: "*We are thrilled with the participation and the enthusiasm the start-ups showed in responding to this challenge created to find high-profile technology solutions that will make high-voltage transmission infrastructure more secure, sustainable and resilient. We believe that innovation is one of the main drivers of the energy transition, and innovating means working with start-ups to introduce powerful new tools and technology that will revolutionise the electricity sector*".

Eoliann, founded in 2022, is a Turin-based climate tech start-up. The company uses satellite data and machine learning algorithms to predict the probability, intensity, and impact of extreme weather events, and their mission is to improve infrastructure resilience and climate risk management. The partnership between Eoliann and Terna will focus on using satellite images and Eoliann's models as

a data source to better calculate and evaluate flood risk. This solution is of particular interest to Terna for planning new power lines and managing existing ones in areas most prone to extreme weather.

Fast Computing is a start-up from Trieste founded by the applied mathematics research group of the "Scuola Internazionale Superiore di Studi Avanzati" (SISSA). It specialises in statistical models and calculation technology for real-time data analysis. Using Terna's proprietary data, Fast Computing will develop a predictive maintenance model to estimate the probability of malfunctions and anticipate maintenance needs for the equipment in the company's power substations.