



WP 1

Assembly and test infrastructures

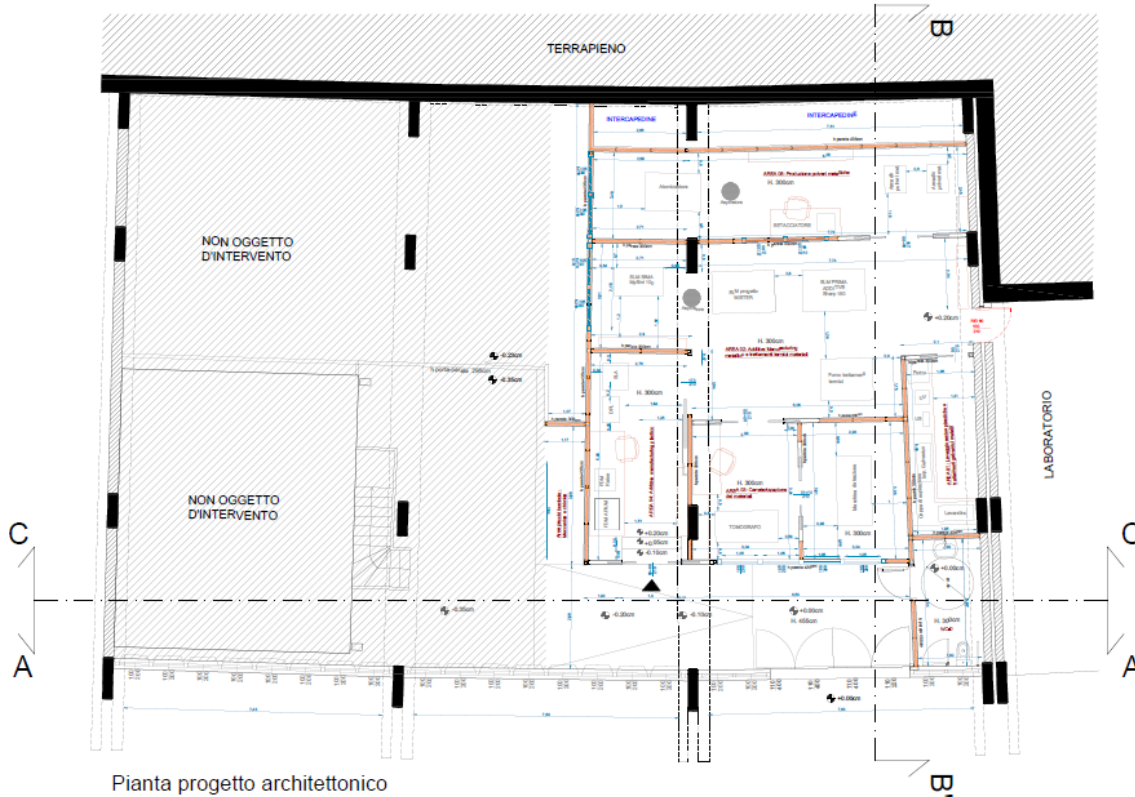
Chiara Zarra

*All the activities of WP1 are aimed at improving the performance of the buildings that will host the experimental activities, from the point of view of plants, energy and in compliance with construction regulations.
WP1 goal is to create areas of pre-assembly and testing of components for the experiments that will work at cryogenic temperature.*

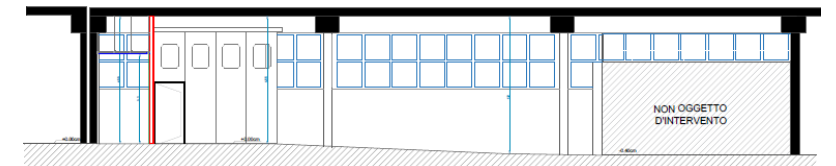
Work Package n.1 consists in 4 activities:

- ▶ WP1.1 → Redevelopment of a space located in the external laboratory, named AR7, for the construction of an additive mechanics laboratory
- ▶ WP1.2 → Redevelopment of a space located in the external laboratory, named Lab2 for experimental activities and cryogenic facility
- ▶ WP1.3 → Seismic retrofit and energy efficiency of building located in the external laboratory named “Hall di Montaggio”
- ▶ WP1.4 → Construction works of a structure dedicated to cryogenic activities in the underground laboratories

The project involves the redevelopment of a portion of space in the AR7 building for the creation of an additive mechanics laboratory, also involving the adjacent technical room, with the configuration of a new layout and dedicated facilities



Pianta progetto architettonico



Sezione A-A Interventi

COMPANY

EDIL GF

PROJECT COST FRAMEWORK

Cost of works 385.967,90 €

Planning costs 80.640,00 €

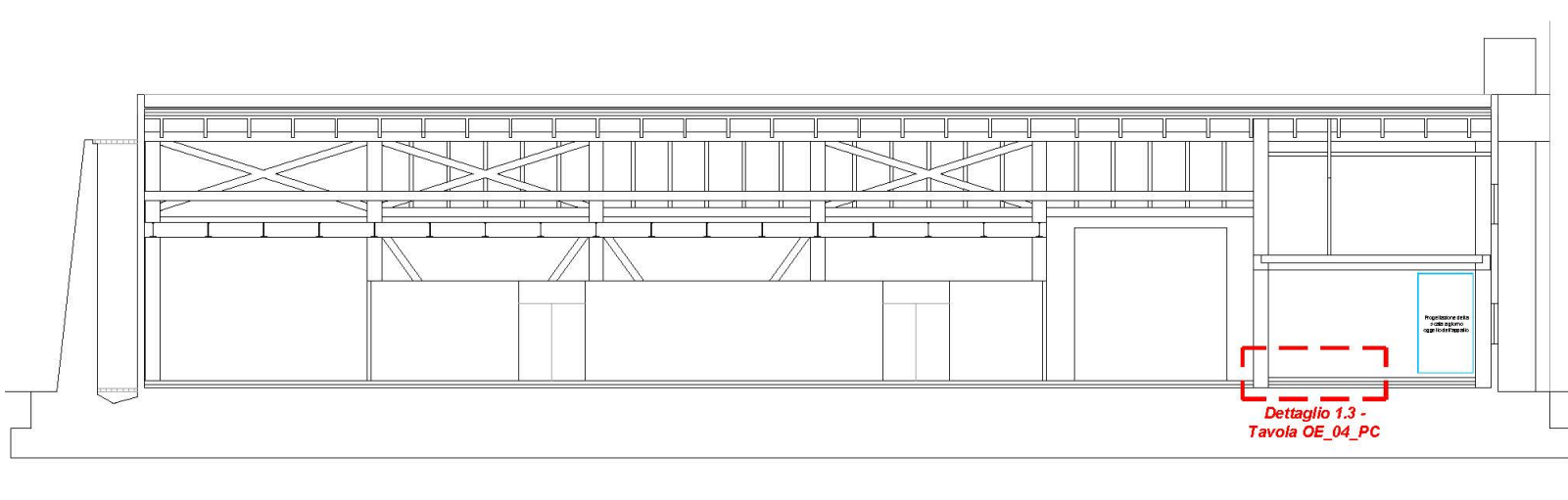
PROJECT SCHEDULING

Start of construction: 12/09/2024

Estimated end of construction: 30/03/2025



The project involves the redevelopment of Lab2 building. A few years after the seismic adaptation intervention and the construction of a mezzanine in metal carpentry, it is now necessary to adapt systems, spaces and equipment. LNGS will dedicate the open space on the ground floor to experimental areas and in particular to an area dedicated to advanced cryogenics



COMPANY

TECNODATA DI FIORELLA NICOLA.

PROJECT COST FRAMEWORK

Cost of works 700.755,20 €

Planning costs 65.000 €

PROJECT SCHEDULING

Start of construction: 16/09/2024

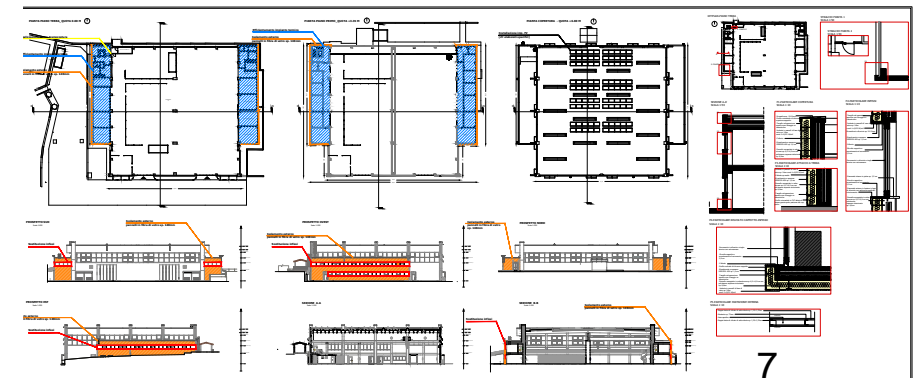
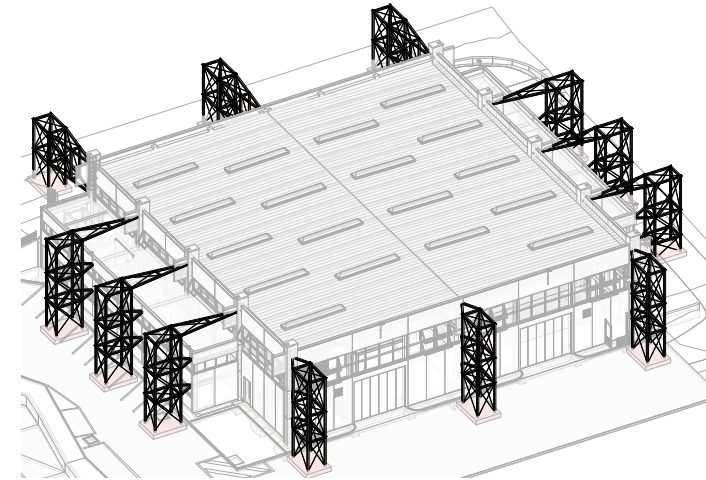
Estimated end of construction: 02/07/2025



The project involves the project involve seismic retrofit and energy efficiency of building in the external laboratory block, named "HALL DI MONTAGGIO"

GOALS:

- The use of additional external structures with applications of steel exoskeletons, without interference with internal activities,
- *Improving the energy performance of the building* (replacement of windows, installation of: solar panels, heat pump, thermal coating)
- Improve the internal comfort in the building



COMPANY

DISTRIBUZIONI GENERALE S.R.L.

PROJECT COST FRAMEWORK

Cost of works 883.596,03 €

Planning costs 95.130,88 €

PROJECT SCHEDULING

Start of construction: 10/10/2024

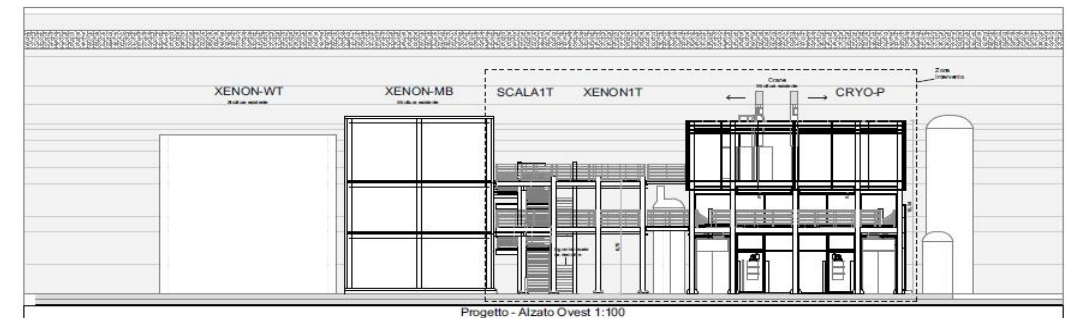
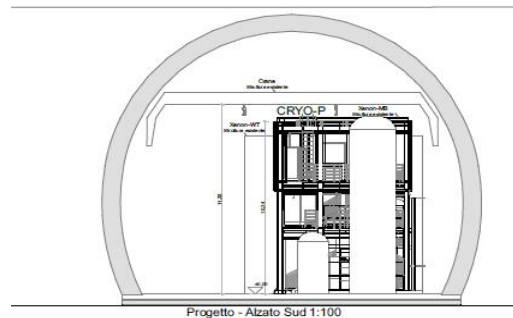
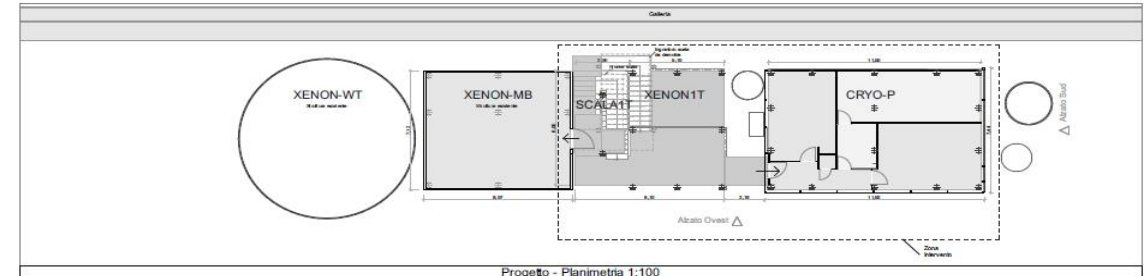
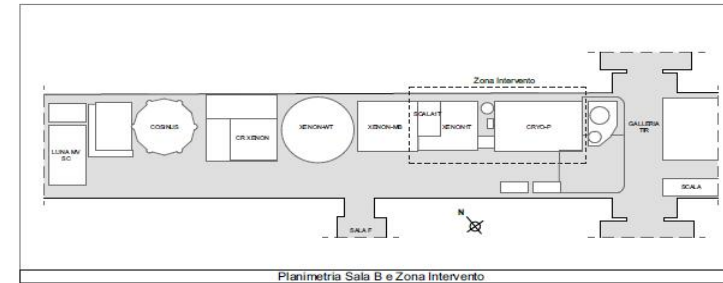
Estimated end of construction: 06/08/2025



WP 1.4 CONSTRUCTION WORKS OF A STRUCTURE DEDICATED TO CRYOGENIC ACTIVITIES IN THE UNDERGROUND LABORATORIES

The intervention involves the underground construction of a metal carpentry structure and related technological systems intended to host low temperature systems designed to test detectors and other sensors up to approximately 10 millikelvin above absolute zero

Plan dimensions are approximately 11.00 meters by 7.00 meters, the building will have 2 floors and an overall height of approximately 11.00 meters.



COMPANY

SAGGESE S.P.A.

PROJECT COST FRAMEWORK

Cost of works 811.116,76 €

PROJECT SCHEDULING

Start of construction: 10/10/2024

Estimated end of construction: 06/08/2025





Thank you



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Ministero
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Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA



Istituto Nazionale di Fisica Nucleare
Laboratori Nazionali del Gran Sasso

Progetto LNGS-FUTURE - IR0000024 - Avviso pubblico "Rafforzamento e creazione di Infrastrutture di Ricerca" PNRR, Decreto n. 3264 del 28.12.2021 – Missione 4 Componente 2, Linea di investimento 3.1 - finanziato dall'Unione Europea – NextGenerationEU - CUP I19D22000090007