

Spoke 6 - Open Research Infrastructures, joint labs, higher education with industrial collaboration

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Description

Spoke 6 objective is to promote and support all stable joint activities between research partners and industrial partners from the perspective of the ecosystem.

This include:

- Consolidation and strengthening of the open research infrastructure for innovation of the Lazio Region (IARI) as stable technologic platform for the development of all activities of Rome Technopole, definition of regulation and access rules;
- Implementation of the portal for access to the research infrastructure of Rome Technopole
- Creation of joint labs with industries, promoting also some collaborations with labs, research groups and research infrastructures located in the southern Italian regions;
- Creation of open labs and contamination labs to promote and support cross-fertilization, creativity, technology-push and demand-pull innovation.
- Development of high-level training and research apprenticeships to significantly increase the number of employment contracts aimed at training and employing at the same time young people in applied research inside companies.

Planned activities are:

- Activation of a Join Lab focused on “Internet-of-things, artificial intelligence, machine learning for machine-aided design, digital assembly and inspection, digital twin” in collaboration with partner Thales Alenia Space Italy
- Activation of a Joint Lab within the project “Rome Advanced District – ROAD” aimed at realizing a technological pole on green energy at ENI site in Rome (Gazometro area)

In addition, **Task 6 in Spoke 6 collects all activities related to the construction of the headquarters of Lazio Technopole**, which is foreseen within the Pietralata area owned by the Municipality of Rome as part of the regional strategic development plans, for a total of about 15.000 square meters. This activity, which should be in charge of the Hub, and the related budget are attributed to the leading partner of the proposal, i.e. Sapienza University of Rome.

- Creazione di un Hub per il coordinamento delle infrastrutture IARI della Regione Lazio
- Potenziamento infrastrutture IARI
- Joint-Labs con le imprese
- Open-lab per alta formazione (SPOKE-5)
- Costruzione del Tecnopolo



Tasks

6.1 Open research infrastructure for innovation (IARI): common technological platform including top-level scientific instrumentation and state-of-art large laboratories, open to provide research and technological services to internal and external partners of Rome Technopole. The activity will be focused on:

- regulation for shared use and service-on-demand of the open research infrastructure;
- redevelopment and upgrading research laboratories of IARI.

The availability and strengthening of the open research infrastructure IARI, with top-level instrumentation, is strategic in order to promote attractiveness of early-career researchers, post-PhDs and top scientists coming from all the country and abroad.

6.2 Joint labs: for developing proof-of-concept level activities through stable collaboration between research partners and industrial partners, on specific topics.

6.3 Open labs and co-creation: labs open to students, researchers, stakeholders aimed at promoting open-innovation and co-creation.

6.4 Higher education with industrial collaboration: post-graduate programmes on selected areas, aiming at meeting the demands of regional and national industries. Activation of courses in collaboration with industrial partners.

6.5 Vocational training for technologies and innovation: definition of relevant training areas and EQF compliant curricula. Activation of courses.

6.6 Headquarter of Rome: design and realization of the first lot of about 2.300 sqm of the new headquarter of Rome Technopole (for a total of about 15.000 sqm), organized as follows:

- Common areas and services, including representation areas: about 30% of the total space available.
- Multimedia classrooms, for teaching and training activities: about 10% of the total available spaces.
- Laboratories for research, technology transfer and innovation activities: about 35% of the total space available, of which about 1000 square meters for the incubator.
- Student housing and residences (according to the college model): about 20% of the total space available, with the creation of 300 beds.
- Administrative offices and headquarters of Rome Technopole: about 5% of the total space available.

- Potenziamento infrastrutture e risorse di LATINO-SABINA
- Joint Open Labs:
 - FP4 (Health & Bio-Pharma) – F. Cardelli (Resp. BvTech) – Misure e conditioning RF di strutture acceleranti per
 - FP6 (Digital Transition) – C. Di Giulio (Resp. Thales) – Sviluppo algoritmi basati su Machine learning per big-data analytics, Virtual and augmented reality e Digital Twin.
 - FP7 (Health & Bio-Pharma) – S. Pioli (Resp. Catalent) – Imaging predittivo con algoritmi Machine Learning

Expected Results

R6.1 - Increase of funding to universities and research partners by the industrial funding partners and stakeholders starting at Q4 Year 1. Indicators for assessment: Amount of financing share from industrial partners and stakeholders Q4 all years.

R6.2 - Training courses, higher education, masters in collaboration with industrial partners starting at Q2 Year 1. Indicators for assessment: i) Number of courses activated in collaboration with industrial partners Q4 all years. ii) Number of trained people Q4 all years.

R6.3 - Activation of Joint Labs on themes inherent to the 3 AdS starting from Q4 Year 1. Indicators for assessment: Number of university-industry laboratories activated: to be monitored at the end of each year Q4 Year 2, Q4 Year 3.

R6.4 - Open calls for highly qualified technical/scientific personnel Q2 Year1. Indicators for assessment: - Number of positions activated

R6.5 Construction of the Rome Technopole headquarters including: final design Q3 Year 1; realization of the first lot (headquarters, administrative offices, incubator) Q4 Year 3; definition of a sustainable mobility plan with parking areas with charging stations and dedicated parking spaces for car / bike / scooter sharing Q3 Year 1; implementation of the first lot of the sustainable mobility plan with parking areas with charging stations and dedicated parking spaces for car / bike / scooter sharing (at least 50%) Q4 Year 3.

Deliverables

D6.1 – Communication plan of Rome Technopole and its periodical update. t0+6, t0+18, t0+30.

D6.2 – Periodical report describing activities of the joint labs, open lab and contamination labs of Rome Technopole (t0+6, t0+18, t0+30)

D6.3 – Periodical report describing initiatives of project management (t0+6, t0+18, t0+30).

D6.4 – Regulation of use and access to IARI (t0+3)

D6.5 - Final design of the Rome Technopole site, including urban redevelopment project and sustainable mobility plan (t0+9)

D6.6 - First lot of the new headquarter of Rome Technopole, including incubator and parking areas with charging stations and dedicated parking spaces for car / bike / scooter sharing (t0+36).

- Inizio Progetto: 1 Luglio 2022 (t0)
- Fine Progetto: 30 Giugno 2025

- Report di avanzamento attività ogni Ottobre

- Milestone in corso: accordo sulle procedure d'accesso alle infrastrutture IARI (Sapienza propone quelle già in uso per LATINO)



	Budget
Totale	2885k€
Spoke-5	921k€
Contenuti realtà aumentata	200k€
Kit didattici	70k€
Assunzione TD (T3 – I Fascia – 24 mesi) per DT e EPOS	196k€
OH + Personale	455k€
Spoke-6	1964k€
Potenziamento Laboratorio RF LATINO (TEX)	330k€
Potenziamento infrastrutture Sud Italia (Salerno)	800k€
Assunzione TD (T3 – I Fascia – 24 mesi) per DA (2x LINAC, LASER, THz)	392k€
OH + Personale	442k€

Mailing list partecipanti Tecnopolo

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SharePoint:

https://istnazfisnucl.sharepoint.com/sites/PNRR_Tecnopolo