ANNEX A - Fact sheets

Ref. no. 1

Profile: Technologist for research on sustainability

Places available: 3

Category/Assignment area: category D - economic position D3

Duration of the contract: 24 months – full time

Workplace: The Siena University Santa Chiara Lab Centre – Via Valdimontone, 1 Siena

Project: Agritech Spoke 9 WP2

Project code (CUP): B63C2200064005

Investment line: Investment 1.4 - Strengthening research structures and creating R&D "national champions" on some Key Enabling Technologies

Director of Research: Prof. Angelo Riccaboni

Job description: The technologist will be responsible for research relating to the NRRP Agritech Spoke 9 WP2 project with the aim of:

- supporting the integration of new and existing data and the creation of new models and a manual for metrics and indicators;
- supporting the development of new sustainability frameworks;
- supporting management tools capable of supporting companies in monitoring and improving the sustainability of company products and processes, as well as promoting the creation of a carbon farming credits market at a local level;
- supporting new marketing tools for the sustainability of agri-food systems.

Admission requirements:

a) **Bachelor's degree (L)** or similar academic qualification obtained abroad and **at least two (even non-continuous) years of professional or research experience** in universities or qualified public or private research institutions, organizations or centres, or in other private institutions or companies.

b) **Degree under the old university system** (pre-Ministerial Decree 509/99), Master's degree (**Laurea Specialistica,** LS), Master's degree (**Laurea Magistrale,** LM), or similar foreign academic qualification.

Required professional knowledge and skills:

i. knowledge of the NRRP programme and in particular of:
- reporting guidelines intended for the implementing bodies of the Mission 4 Component 2 system initiatives (prot. MUR 7554 of 10.10.2022);
- guidelines for information and communication actions by the implementing bodies, version 1.0 of 10 October 2022;

ii. Specialist skills in the following areas:
- techniques and methods of organizational analysis and process design;
- operational implementation of the provisions of the projects as a whole, as well as planning and coordination of the activities to be carried out.
- use of the most common computer applications (e.g. spreadsheets) in the field of project management, data processing and management.

iii. Soft skills in the following areas:
- ability to organize, coordinate and monitor the activities assigned to the team;
- strong problem analysis (problem determination) and solution (problem solving) skills;
- ability to draft and process administrative acts and documents;
- ability to work on projects;
- communication skills;
- ability to work in teams and manage relationships, leadership skills.

iv. Good proficiency in English is also required.

Assessable qualifications:

- First- and Second-level master's degrees
- PhD
- Work experience relevant to the required profile or in research projects, as long as they <u>have not been used</u> for admission to the procedure.

Exam topics:

- National Recovery and Resilience Plan: legislation, measures and projects with particular reference to mission 4, component 2, Investment line 3.1 "Fund for creating an integrated ecosystem of research and innovation infrastructures"
- Reporting guidelines intended for the implementing bodies of system initiatives
- Mission 4 Component 2 system initiatives (prot. MUR 7554 of 10.10.2022);
- Verification of the required competencies, knowledge of office automation tools and of English and, for foreign nationals, of Italian.

Ref. no. 2

Profile: Technologists for research on the implementation of new technologies and methodologies for the traceability, quality and safety of agri-food chains

Places available: 2

Category/Assignment area: category D - economic position D3

Duration of the contract: 24 months – full time

Workplace: The Siena University Santa Chiara Lab Centre – Via Valdimontone, 1 Siena

Project: Agritech Spoke 9 WP2

Project code (CUP): B63C2200064005

Investment line: Investment 1.4 - Strengthening research structures and creating R&D "national champions" on some Key Enabling Technologies

Director of Research: Prof. Angelo Riccaboni

Job description: The recruited professional figure will be involved in research related to NRRP Agritech Spoke 9 project with the aim of;

- implementing new technologies and methodologies for traceability, quality, safety and the promotion of agri-food chains;
- understanding the origin, authenticity and safety of agricultural production and agri-food supply chains, promote the alignment of agri-food companies with the 2030 Agenda and the SDGs;
- collecting experimental data for the description of food matrices (in terms of quality and geographical characterisation) based on the analysis of nuclear genomic DNA sequences.

Admission requirements:

a) **Bachelor's degree (L)** or similar academic qualification obtained abroad and **at least two (even non-continuous) years of professional or research experience** in universities or qualified public or private research institutions

b) **Degree under the old university system** (pre-Ministerial Decree 509/99), Master's degree (**Laurea Specialistica,** LS), Master's degree (**Laurea Magistrale,** LM), or similar foreign academic qualification.

Required professional knowledge and skills:

i. Knowledge of the NRRP programme, and in particular of:

- Guidelines for system initiatives - Mission 4: Education and research - Component 2: From research to enterprise (DM 1141 of 07.10.2021);
- the National Recovery and Resilience Plan: National Agritech Centre, Spoke 9, WP 1, Task 9.1.1;
- Agenda 2030 and Sustainable Development, focusing on the agri-food sector (sustainable agriculture);
- regulations and guidelines governing the genetic traceability of food and sustainability (European Commission and national regulators).
- promoting biodiversity in agriculture

ii. Specialized knowledge and skills in the following areas:

- cell and molecular biology, genetics and genomics, plant physiology;
- polymerase chain reaction (PCR) techniques, DNA sequencing, genotype analysis, phylogenetic analysis and other molecular biology and genomics techniques;
- the design and conduction plant experiments and critically analysis of data;
- environmental sustainability and sustainable agricultural practices, such as organic farming.

iii. Soft skills in the following areas:

- ability to manage laboratories and research projects;
- knowledge of statistics applied to scientific research;

- strong problem analysis (problem determination) and solution (problem solving) skills;
- ability to elaborate and process administrative acts and documents;
- Ability to work on projects;
- Communication skills;
- Ability to work in groups and manage relationships, leadership skills.

iv.   Good proficiency in English is also required.

Assessable qualifications:

- PhD (ongoing or awarded) relevant to the topic of the call
- Research grants/fellowships;
- Experience in leading and managing multifunctional teams;
- Participation in meetings, conferences, congresses, etc;
- Participation in university teaching activities and in exam and theses committees;
- Publications relevant to the topic of the call (up to 10);
- Professional experience relevant to the required profile or in research projects, as long as they have not been used for admission to the procedure.

Exam topics:

- The exams will focus on knowledge of the National Recovery and Resilience Plan (spoke 9, WP 1, Task 9.1.1) and in particular of the National Agritec Center, of Agenda 2030 goals with reference to the topic of sustainable agriculture and enhancement of biodiversity in agriculture. During the exams, technical aspects such as knowledge of genetics and genomics of crop plants, of PCR and DNA sequencing methods, and genotype analysis will also be assessed. The aptitude for planning experiments on plants, managing laboratory activities and research projects, problem-solving and communication skills will be assessed.
- Knowledge of the most common computer applications and English and, for foreign nationals, of Italian will also be assessed during exams.

Ref. no. 3

Profile: Technologist experienced in the promotion of activities and projects as required by the NRRP METROFOOD project

Places available: 1

Category/Assignment area: category D - economic position D3

Duration of the contract: 18 months – full time

Workplace: The Siena University Santa Chiara Lab Centre – via Valdimontone, 1 Siena

Progetto: NRRP Metrofood Project

Project code (CUP): I83C2200104000

Investment line: Investment line 3.1, "Fund to create an integrated ecosystem of research and innovation infrastructures", funded by the European Union-NextGenerationEU, reference action 3.1.1 "Creation of new RIs or enhancement of existing ones that contribute to the objectives of Scientific Excellence of Horizon Europe and networking" under Ministerial Decree no. 1141 of 7 October 2021 of the NRRP on some key enabling technologies;

Director of Research: Prof. Angelo Riccaboni

Job description: The recruited professional figure will be responsible for:

- Promoting Living Lab activities and projects, as required by the NRRP METROFOOD project, with a specific focus on the agri-food sector and with particular attention to the new laboratories being implemented;
- Assessing sustainability by comparing hydroponics, aeroponics and soil-based farming systems;
- Promoting the development of new tools for assessing the sustainability of agribusinesses.

Admission requirements:

a) **Bachelor's degree (L)** or similar academic qualification obtained abroad and **at least two (even non-continuous) years of professional or research experience** in universities or qualified public or private research institutions, organizations or centres, or in other private institutions or companies.

b) **Degree** under the old university system (pre-Ministerial Decree 509/99), Master's degree (**Laurea Specialistica,** LS), Master's degree (**Laurea Magistrale,** LM), or similar foreign academic qualification.

Required professional knowledge and skills:

i. Knowledge of the NRRP programme and in particular:
   · Guidelines for System Initiatives - Mission 4: Education and Research Component 2: From Research to Enterprise (DM 1141 of 07.10.2021);
   · Agenda 2030 and Sustainable Development with a focus on the agribusiness sector (sustainable agriculture);
   · Enhancement of biodiversity in agriculture

ii. Specialist knowledge and skills in the following areas:
   · knowledge of hydroponic growing techniques, including different growing systems and nutrient management.
   · knowledge of plant biological processes, photosynthesis, respiration and plants in general.
   · knowledge of environmental conditions necessary for hydroponic cultivation, such as temperature, humidity and light. Knowledge of resource management, including water and energy management, practices to minimize the environmental impact of hydroponic laboratories.
   · knowledge of statistics applied to scientific research.
   · ability to elaborate and process administrative acts and documents;
   · ability to manage laboratories and research projects.

iii. Soft skills in the following areas:
   · excellent problem-determination and problem-solving skills;

· ability to work on projects;
· communication skills;
· ability to work in teams and manage relationships, leadership skills.

iv. Good proficiency in English is also required

Assessable qualifications:

- Research grants/fellowships;
- Experience in leading and managing multifunctional teams;
- Participation in meetings, conventions, congresses, etc.;
- Participation in university teaching activities and in examination and dissertation committees;
- Publications relevant to the subject of the call for applications (up to 10);
- Additional work experience related to the required profile
- PhD (ongoing or awarded) relevant to the topic of the call
- Participation in university teaching activities and exam and theses committees;
- Professional experience relevant to the required profile or in research projects, as long as they have not been used for admission to the procedure.

Exam topics:

- Exams will focus on knowledge of the NRRP METROFOOD project and topics specific to the agri-food sector and the sustainability of agri-food supply chains. Knowledge of hydroponic cultivation techniques, biological and physiological processes of plants and environmental requirements to optimize their cultivation, the environmental impact of traditional and hydroponic farming systems will be assessed. Exams will also assess the ability to manage laboratories and research projects, problem-solving skills, as well as the ability to communicate and work within teams.
- Knowledge of the most common computer applications and English and, for foreign nationals, of Italian will also be assessed during exams.

Ref. no. 4

Profile: Research technologist for the management of an e-platform providing a virtual space for the interaction between different stakeholders of the agrifood system

Places available: 1

Category/Assignment area: category D - economic position D3

Duration of the contract: 18 months – full time

Workplace: Santa Chiara Lab Centre, Siena University – Via Valdimontone, 1 Siena

Project: NRRP Metrofood project

CUP: I83C2200104000

Investment line: Investment Line 3. 1, "Fund for the realisation of an integrated system of research and innovation infrastructures", financed by the European Union - NextGenerationEU, reference action 3.1.1 "Creation of new RIs or enhancement of existing ones that contribute to the objectives of the Scientific Excellence of Horizon Europe and networking" under Ministerial Decree no. 1141 of 7 October 2021 of the NRRP on some key enabling technologies;

Director of Research: Prof. Angelo Riccaboni

Job description: the required professional figure will be responsible for:

- promoting the activities and projects of the Living Lab, as envisaged by the NRRP METROFOOD project, with a specific focus on the agri-food sector, with particular attention to the new laboratories being implemented;
- assessing the sustainability by comparing hydroponics, aeroponics and soil-based cultivation systems;
- promoting the development of new tools for assessing the sustainability of agri-food businesses.

Admission requirements:

a) **Bachelor's degree (L)** or similar academic qualification obtained abroad and **at least two (even non-continuous) years of professional or research experience** in universities or qualified public or private research institutions, organizations or centres, or in other private institutions or companies.

b) **Degree** under the old university system (pre-Ministerial Decree 509/99), Master's degree (**Laurea Specialistica,** LS), Master's degree (**Laurea Magistrale,** LM), or similar foreign academic qualification.

Required professional knowledge and skills:

i. Knowledge of:
· the National Recovery and Resilience Plan: legislation, measures and projects with particular reference to 4, component 2, Investment Line 3. 1, "Fund for the realisation of an integrated system of research and innovation infrastructures";
· Guidelines for information and communication actions by the implementing bodies, NRRP programme version 1.0 of 10 October 2022;
· the most common computer applications used in data management and processing (e.g. spreadsheets) and in project management

ii. Specialist skills in the following areas:
· techniques and methodologies of organizational analysis and process design;
· operational implementation of what is envisaged in projects as a whole as well as planning and coordination of activities to be carried out

iii. Soft skills in the following areas:
· ability to organize, coordinate and monitor activities assigned to the team;
· strong orientation towards the analysis of problems (problem determination) and their solution (problem solving);
· ability to draft and process administrative acts and documents;
· ability to work on projects;

· communication skills;
· ability to work in teams and manage relationships, leadership skills.
iv.   Good proficiency in English is also required

Assessable qualifications:

- Professional qualification related to the scope of the profile
- Experience working on research projects
- Publications relevant to the topic of the call (up to 10);
- Work experience relevant to the required profile or in research projects, as long as they <u>have not been used</u> for admission to the procedure.

Exam topics: the exams will focus on the following topics:

· National Recovery and Resilience Plan: legislation, measures and projects with particular reference to mission 4, component 2, Investment line 3.1 "fund for the creation of an integrated system of research and innovation infrastructures"
· Reporting guidelines intended for the implementing bodies of the Mission 4 Component 2 system initiatives (prot. MUR 7554 of 10.10.2022);
· Knowledge of the most common computer applications and English and, for foreign nationals, of Italian will also be assessed during exams.

Ref. no. 5

Places available: 2

Category/Assignment area: category D - economic position D3

Duration of the contract: 24 months – full time

Workplace: Liaison Office

Project: THE - Tuscany Health Ecosystem - Spoke 5, Implementing innovation for healthcare and wellbeing

Project code (CUP): B63C22000680007

Investment line: Investment 1.5 Ecosystem Innovation

Director of Research: Dott. Guido Badalamenti

Job description: The Technologist will have to work within the research project: Tuscany Health Ecosystem (THE) in order to support the process of scouting new results, their protection and valorisation also through the creation of enterprises, scientific monitoring of the projects, communication and scientific dissemination with particular regard to the life sciences sector.

Admission requirements

    a) **Degree under the old university system** (pre-Ministerial Decree 509/99), Master's degree (**Laurea Specialistica,** LS), Master's degree (**Laurea Magistrale,** LM), or similar foreign academic qualification.

Required professional knowledge and skills:

- scouting, protection and valorisation of innovations and research results on the market and in society
- business development and support for the creation of new spin-offs and start-up companies
- data processing and analysis skills
- management of innovation projects also in the context of the NRRP
- aptitude for teamwork and cooperation
- problem-solving, operational reliability and adherence to deadlines
- ability to communicate with different interlocutors
- ability to identify and understand the needs of internal and/or external users
- ability to conduct complex negotiations
- excellent proficiency in English
- knowledge of the most common computer applications

Other assessable qualifications:

- PhD (awarded or enrolled in the final year);
- Postgraduate qualifications, such as a Master's degrees, specialisation or advanced training programmes;
- Scholarships funded by scientific projects
- Publications (up to a maximum of 2), particularly in the last four years
- Particular professional qualifications acquired in areas pertaining to the required profile, deriving from previous work experience, or similar, in public administrations, public bodies and private companies or in a self-employed capacity

Exam topics:

- University patent/spin-off regulations
- National/international patent legislation
- The National Recovery and Resilience Plan and the main measures to support universities and research institutes
- Business planning
- Marketing
- Scientific/patent databases

- Knowledge of the most common computer applications and English and, for foreign nationals, of Italian will also be assessed during exams

Ref. no. 6

Places available 2

Category/Assignment area category D - economic position D3

Duration of the contract: 18 months – full time

Workplace: Department of Physical sciences, Earth and the Environment - Physics Section – via Roma 56, Siena

Project: Cherenkov Telescope Array Plus

Project code (CUP): C53C22000430006

Investment line: Investment Line 3. 1, "Fund for the realisation of an integrated system of research and innovation infrastructures"

Director of Research: Prof. Riccardo Paoletti

Job description:

- coordination of project document deliverables (template submission, scientific content request to partners, content revision)
- Coordination and monitoring of WP implementation
- Communication with project partners to coordinate the project's scientific activities
- Support and participation in UNISI dissemination activities
- Organisation of project meetings including transferring and capitalisation events
- Attendance at project meetings in Italy and abroad to present progress reports and scientific results
- Planning, co-ordination and editing of scientific publications relating to project outputs
- Participation in the preparation of national and international projects aimed at the continuity of project activities.

Admission requirements: Degree under the old university system (pre-Ministerial Decree 509/99), Master's degree (*Laurea Specialistica*, LS), Master's degree (*Laurea Magistrale*, LM), or similar foreign academic qualification.

Required professional knowledge and skills:

- Experience in drafting project reports and scientific texts;
- Knowledge of European project funding instruments
- Experience in planning and reporting on European and/or international projects of both research and private organisations and institutions;
- Experience in team coordination and fund management.
- Organisation and coordination of scientific and training events

Languages: Good proficiency in English

Other assessable qualifications:

- Publications (up to 10)
- Documented prior experience in the field

Exam topics:

- National Recovery and Resilience Plan: Legislation, Measures and Projects with special reference to Mission 4, Component 2, Investment Line 3.1 "Fund for creating an integrated system of research and innovation infrastructures".
- CTA+ Project
- Principles and rules of project planning and management
- the required competencies and knowledge of the most common office automation tools and of English and, for foreign nationals, of Italian will also be assessed during exams.