



Switching
your potential on



TENANCY
PACKAGE

Science and Technology Park of Sardinia

Main location at Pula (CA)

Tramariglio-Alghero location (SS)

July 2011



**SARDEGNA
RICERCHE**

Turning innovation into value



Sardegna Ricerche Science and Technology Park of Sardinia



Polaris, the Science and Technology Park of Sardinia is a system of research and development facilities providing the best conditions for fostering technology R&D and industrial application capacity.

Its operational setup includes:

- ▶ A system of services, laboratories and technology platforms for innovation, research and technology development
- ▶ A system of advanced facilities hosting innovative businesses and R&D activities

Polaris has two centres, each with a specific science & technology focus:

The main centre at Pula-Cagliari

- ICTs – Information and Communication Technologies
- Biomedicine and Health Technologies
- Renewable Energies

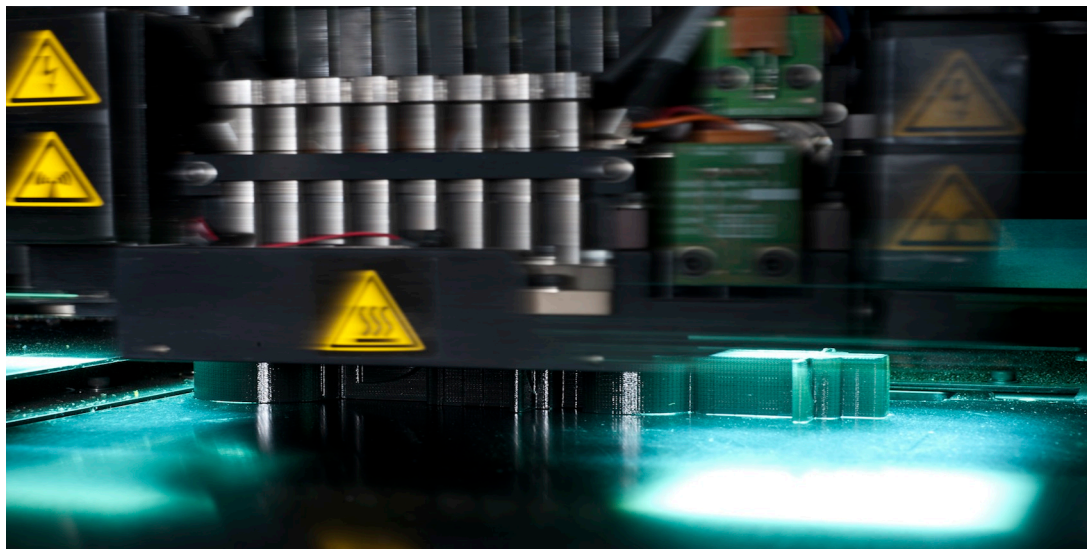
The Alghero-Tramariglio centre

- Biotechnologies
- Food Technologies





Services and technology platforms



Technology development services

These services are on offer to tenant organisations in the two centres at Pula and Alghero (Tramariglio). Their cost is included in the tenancy package. Additional services not listed below are not included in the standard tenancy package and are charged separately, as described in the specific rules.

Information services

- ▶ Technical and scientific information
 - ▷ Outreach and dissemination days, sectoral workshops, thematic seminars, technology brokerage events, etc.
 - ▷ Information services on R&D programmes
 - ▷ Call alert service
- ▶ Library and documentation services
 - ▷ Access to online electronic journals from the users' computers (Pula centre only)
 - ▷ Loans, interlibrary loans and document delivery
 - ▷ Bibliographic information service
 - ▷ Bibliographic searches, document delivery

HR training and management

- ▶ Technical-scientific training and updating courses
- ▶ Training in project management, innovation management
- ▶ Assistance in sourcing qualified staff
- ▶ Assistance for access to regional HR development programmes





Assistance in designing research and development projects

- ▶ General advisory and support services covering:
 - ▷ Identification of funding sources
 - ▷ Drafting of research proposals and projects
 - ▷ Search for project partners
 - ▷ Expenditure reporting criteria
 - ▷ Institutional relations with funding agencies

Technology transfer services

- ▶ Patenting and intellectual property services:
 - ▷ General assistance prior to filing of a patent application (state of the art, novelty, patentability) through searches in specialised databases (EPO, PCT, trademark databases, etc.)
 - ▷ Basic patent searches, state-of-the-art searches, assistance for consultation of the main patent databases, legal status search, printing of full texts or abstracts of patents filed with the EPO, PCT and in the main industrial countries
 - ▷ As to trademarks: screening of trademarks filed nationally in the various countries, at international and European Community level, legal status searches
- ▶ Post-patenting and optimization support:
 - ▷ Promotion of locally-developed technologies within Italy and internationally (inclusion in technology databases)
 - ▷ General assistance for licensing and in the purchase/sale of patented technologies
 - ▷ Dossiers, technology and competitor watches
 - ▷ Participation in technology brokerage events
- ▶ Rapid prototyping services
- ▶ Assistance in the start up of innovative enterprises

Communication and marketing

- ▶ Facilitation of contacts with the institutions
- ▶ Inclusion of tenant companies' profiles in the Park communication tools (brochures, website, etc.)
- ▶ Inclusion in the Park's Intranet
- ▶ Assistance in relations with the press and other media
- ▶ Promotion of tenant companies' products/services during science and technology events
- ▶ Organisation of promotional initiatives within the Park's communication plan

Technology labs

The technology laboratories consist of scientific equipment, machinery and know-how for collective use; they are major technology innovation tools, they promote R&D activity and help upgrade the know-how and laboratory capability of both Park tenants and the local research and business environment.

Each laboratory is manned by expert technicians who:

- ▶ Ensure that lab equipment functions effectively and provide the related services at a sustained high level of quality





- ▷ Support, enhance and personalise the quality of R&D activities
- ▷ Deliver education and training tailored to the vocational and scientific knowledge requirements of users

Use of the technology labs is governed by specific operating rules that set out access conditions and procedures.

As a rule, the laboratories are made available to Park tenants against payment of live costs only.

In particular, the following activities may be pursued in the laboratories:

- ▷ Fundamental research and other non-profit-making activities
- ▷ R&D services provided under State aid schemes
- ▷ Research services relating to research and innovation projects

THE TECHNOLOGY LABORATORIES OF THE PARK CENTRE AT PULA

ICTs - INFORMATION AND COMMUNICATION TECHNOLOGIES

- Sardinia DistrICT:
 - ▷ **Lab for the acquisition, distribution and visualisation of complex 3D models:** this laboratory, provided with state-of-the-art equipment, supports innovation and the technology transfer of the outputs of research through demonstrations, tutorials and the development of software prototypes. Main sectors covered: 3D scanning technologies, digital storage and distribution of massive 3D models, editing, visualisation and 3D printing of such models.
 - ▷ **ICTs for medicine laboratory:** this laboratory supports innovation and technology transfer through demonstrations, tutorials, and the development of software prototypes. Main activity sectors are distributed infrastructures for clinical applications and visual analysis for pre-surgery and surgery.
 - ▷ **Ambient Intelligence laboratory:** wireless, mobile, and surveillance systems, biometric technologies, RFID, etc. have today converged in Ambient Intelligence, which the laboratory applies to the cultural heritage and civil protection sectors.
 - ▷ **Open media centre laboratory:** this lab consists of a domestic media centre platform, based on open source software and standard hardware. This platform, currently being implemented, will be provided with automated remote controls and basic home automation functions.
 - ▷ **Laboratory for the collaborative production of multiplatform TV programmes:** this laboratory develops and tests technologies, applications and services for the production, personalisation and distribution of multimedia content, with a focus on video.
 - ▷ **Laboratory for the production of digital content prototypes and new formats:** this lab promotes pilot projects in the field of the new media, helping companies upgrade their offer in terms of format diversity, interactivity and creativity.
 - ▷ **Open source software laboratory:** this lab comprises a team of developers with extensive experience in the management and creation of open-source projects in the field of education, public administration and business management.
 - ▷ **Industrial telemicroscopy laboratory:** the main aim of this laboratory is to create a web-based network for remote sharing of tools and resources. The resources to be shared include the scanning electron microscopes (SEM) present at various locations in Sardinia.





- ▷ **GeoWeb and mobile user experience laboratory:** the synergy between GPS, Web and geo-referenced data makes it possible to locate objects through the web and access information on them on mobile devices.
- **“Computing centre” laboratory**

The Computing Centre is housed in building 1 of the Pula campus, and is managed by CRS4. The Platform comprises dedicated equipment and technical support staff. The lab provides the following services:

 - ▷ Computing hours in the HPC cluster
 - ▷ Storage services

Technical characteristics of the Computing Centre:

 - ▷ Computing power: 47 TFlops (1 TeraFlops= 10¹² Floating Point Operations Per Second)
 - ▷ Storage capacity: 1.2PB (1 Peta Byte = 10¹⁵ bytes = 1 quadrillion bytes)

BIOMEDICINE AND HEALTH TECHNOLOGIES

- **Nanobiotechnology laboratory:** the Nanobiotechnology laboratory, located at several Departments of Cagliari and Sassari university, is run by the Nanobiotechnology Centre of Sardinia - CNBS.

The laboratory can be used to perform a range of characterisations on nanomaterials for biomedical applications and to carry out studies and industrial research assignments. The laboratory comprises:

 - ▷ Dedicated equipment
 - ▷ Technical support staff
- **Genotyping and massive sequencing laboratory:** this laboratory makes available scientific and technological know-how and has a long track record in the field of gene expression and genotyping, as well as devices and equipment for implementing technology-intensive projects.

The lab’s activities focus on the identification, isolation and characterisation of genes and genetic pathways. It also studies diseases with a strong genetic component and a high incidence in the Sardinian population, such as type I diabetes and multiple sclerosis, both of which are autoimmune diseases.

The laboratory is equipped to run the following studies:

 - ▷ Microarrays with a range of methods and approaches for expression or genomic studies
 - ▷ Gene expression and genotyping studies on animal models
 - ▷ Sequencing of genomic DNA fragments using the Sanger method
 - ▷ Massive DNA sequencing based on the "sequential synthesis" of oligonucleotides employing reversible dideoxy terminators
- **Bio-IT laboratory:** the laboratory covers the following areas:
 - ▷ Functional genomics: functional characterisation of genes, their interactions and complex biological mechanisms based on data coming from post-genomic research and the latest sequencing technologies (next-generation sequencing)
 - ▷ Analysis of the molecular bases of human diseases: identification of the mechanisms triggering human diseases via characterisation of molecular and genetic aspects in normal and pathological conditions





- ▷ Systems biology: characterisation and prediction of macromolecule and metabolic pathway interactions and simulation of complex systems of biomedical interest at various levels of biological organisation
 - ▷ Computer simulation of organs: design and development of mathematical algorithms to simulate biological processes in organs.
- **NMR and bioassay technologies laboratory:** the NMR-BAT laboratory is housed in building 5 of the Pula campus and is managed by the National Research Council – Institute of Translational Pharmacology (CNR-IFT).
It comprises two areas: one devoted to nuclear magnetic resonance spectroscopy and the other housing the High Throughput multifunctional laboratory.
- **The animal holding facility:** this facility is housed in building 5 of the Technology Park at Pula, and comprises:
 - ▷ A semi-barrier animal holding room, as described in Annex 1 to the inventory
 - ▷ A barrier animal holding room, currently undergoing completion
 - ▷ The equipment for the holding of rodents (rats and mice) and amphibians
 - ▷ Specialised staff managing the facility

The facility provides a lab animal breeding and holding service for animal testing purposes.
- **Rapid prototyping and medical device laboratories:** these laboratories offer state-of-the-art equipment and services for new product development and reverse engineering. The rapid prototyping laboratory employs two prototyping technologies:
 - ▷ “Layer Manufacturing” (additive technologies) using FDM – Fused Deposition Modelling, Polyjet and 3D Printing equipment
 - ▷ “3D milling” (subtractive technologies, that work by removing material) using a 4-axis 3D modelling milling machine

The laboratory is equipped with software for parametric CAD design and Reverse Engineering and morphology acquisition machines such as spinning disc 3D laser scanner and contact scanner. The lab also includes an area equipped for standard electronic testing and certain standard mechanical processes.

The medical devices laboratory is the first platform for the development and launch of new products in the medical field and constitutes an initial platform for developing and launching new medical products, facilitating the subsequent transition to pre-industrial and industrial production. It is also equipped for the testing of cardio-respiratory and metabolic devices, with applications in the field of cardiopulmonary rehabilitation in home care, occupational and sports medicine, physical training methodology, personal training and centres, pre-implant orthopaedic bone surgery, dentistry, sensors for biological signal detection and the study of physiological parameters.

RENEWABLE ENERGY CLUSTER

This cluster, based in the Macchiareddu industrial park near Cagliari, consists of four, closely interwoven technology laboratories that pool the renewable energy activities and scientific and technological expertise of businesses, universities and research centres. These labs, intended as open arenas for collaboration between industry and the world of research and innovation, provide advanced equipment and know-how to all players in the field.





- **Bio-fuels and Biomass Laboratory:** the lab pursues analysis, research and experimental activities to encourage the growth of the biomass energy sector and the use of bio-fuels in Sardinia
- **Energy Efficiency Laboratory:** its aim is to identify guidelines and strategies to achieve healthy living and working environments both inside and outside buildings
- **Photovoltaic Lab:** this laboratory carries out applied research in the PV sector, It provides monitoring services and is set to become a certification centre to support the sector's development in Sardinia
- **Solar concentration and Hydrogen from RES laboratory:** the lab's main objective is to develop, test and demonstrate the entire process for the production, storage and use of hydrogen from renewable energy sources, as well as power generation from solar thermal concentrator systems.

THE LABORATORIES AT THE ALGHERO CENTRE (TRAMARIGLIO)

BIOTECHNOLOGIES

- **Proteomics laboratory**

The proteomics laboratory of Porto Conte Ricerche offers a wide range of tools and techniques for the study of proteins, and is currently one of the most comprehensive and state-of-the-art laboratories in Italy. Its range of applications spans several fields, including: systemic and differential analysis of the proteome of a tissue, cell or cell compartment in pathological and physiological conditions using electrophoresis, with subsequent protein identification by means of mass spectrometry; the search, identification and characterisation of peptide and protein markers; protein purification by means of chromatographic techniques with possible primary structure validation by mass spectrometry analysis; determination of the accurate molecular weight of proteins and peptides by means of mass spectrometry, the identification of post-translational changes; peptide design, synthesis and purification. The laboratory has high processivity systems for IEF and 2D-PAGE, advanced imaging systems for differential proteomic analysis, and state-of-the-art mass spectrometers (ESI-Q-TOF, ESI-ION TRAP, MALDI-TOF, LTQ ORBITRAP Velos), as well as an automated microwave peptide synthesizer and other ancillary instruments.

- **Green chemistry laboratory**

The laboratory supports the design of innovative methodologies to reduce or eliminate the use and production of harmful substances in industrial production processes. The lab has a supercritical fluid extraction process (CO₂) for extractions from various biological matrixes in order to obtain products with an exceptionally high degree of purity and free from toxic residues. To design new environmentally-friendly products and processes, in addition to the supercritical fluid extraction system, the lab uses a "Naviglio" extractor, a thin film distiller and a number of testing instruments (HPLC, GS-MS, etc.).

- **NMR and molecular Imaging laboratory**

the laboratory's instruments and personnel are devoted to the study of liquid and semisolid samples and to MRI micro-imaging applications. The instruments make it possible to perform analyses and services for structural, dynamic and functional studies of purified biological molecules and macromolecules, the molecular characterisation of





whole tissues (Bruker Avance 600MHz equipped with Bruker QXI, BBO and HRMAS probes), as well as “in vitro” and “in vivo” studies (Bruker Avance 300MHz, 2.5 Micro probe for proton signal acquisition, water-cooled XYZ gradients and 2.5 G/cm/A gradient strengths), for a broad range of applications in the agrifood, environmental and biomedical sectors. The lab plans and supports a range of programmes for business clusters, conceived to develop molecular tracking systems in food products and new diagnostic kits for application in human and veterinary medicine.

- **Molecular genetics laboratory**

This lab is equipped with Illumina’s Bead Array technology. It delivers services and equipment for research in the field of functional genomics at various throughput levels. The platform is multifunctional and can support animal and plant genotyping projects and copy number variation (CNV) analyses on the genomic scale, as well as studies of transcript expression levels and microRNA expression studies. The SQ module of the HiScan System via the sequencing by synthesis (SBS) makes it possible to support studies of genome sequencing, structural variation, etc. Furthermore, the core facility is equipped with a PCR Real Time system for performing the same types of tests with narrower genome coverage, which can be used to validate the results obtained or for a candidate gene selection approach.

- **Molecular immunology laboratory**

The laboratory has a last-generation flow cytofluorimeter (FACS Canto II, BD) as well as other technology which, together with the FACS, support the development and setup of immunodiagnostic systems for the qualitative and quantitative molecular study of the immune system’s response. Applications include the development of systems for the control of animal and human diseases, and support to key projects in the field of food allergies and intolerance, infectious diseases, the development of new vaccines and a range of immunologic and immunopathological conditions.

- **Blue biotechnology laboratory (aquaculture)**

In the course of 2010 a new laboratory was completed (Blue Biotechnology), to support Sardinian fishing and aquaculture businesses. This lab includes, in its initial setup, an installation for experimental infections (the only one existing in Sardinia) and nutrition tests, and a metabolic chamber for feeding tests. The lab’s technology includes a system for the continuous monitoring of the main chemical-physical parameters of water. The laboratory works in synergy with the other platforms housed at the Alghero campus of the Science and Technology Park of Sardinia.

- **Biosensor and telemetry laboratory**

This lab was created in 2009 to support the R&D programmes for the business cluster “biosensors for diagnostic systems”. The research strands supported by the laboratory involve the development and in vitro characterisation, at the prototype stage, of electrochemical micro-sensors and biosensors. The sensors are developed for the study of bio-molecules in animal and plant matrixes, and to identify patho-physiological conditions of interest in the area of human, animal and plant health. The laboratory also takes advantage of the Park’s other core facilities to associate biosensors with integrated bio-telemetric monitoring devices.





The technology setup includes potentiostats complete with recorders, electrode welding stations, stereoscopes, a microfluidic pump and other ancillary instruments.

FOOD TECHNOLOGIES

- **Packaging and shelf life lab**

The lab offers advanced services for foodstuff shelf life studies. It is equipped with technology for testing food products and for performing studies on packaging materials and on the atmosphere inside the packaging. The services include chemical, physical, mechanical and microbiological food testing, estimation and determination of packaged food shelf life, packaging testing, optimisation of the food/packaging/gas mixture system. The lab's technology includes: dynamometer, packaging machines, gas determination systems and other ancillary systems.

- **Food processes laboratory**

The laboratory supports the design and development of new food products. The services range from product design to prototype creation and end with the production of the "new" industrial product. The services include chemical-physical microbiological and rheological/structural testing, necessary to assess product characteristic and check compliance with applicable legislation. The equipment employed to deliver these services includes: low-impact processing equipment (an ohmic plant with antiseptic filling and high pressure plant), conventional treatment and processing equipment (sterilisation autoclave, vegetable product processing plant, plant for the production of bread, pasta and bakery products, packaging machines), testing equipment supporting the plants (dynamometer, rheometer, alveograph, consistograph, colorimeter).

- **Microbial biotechnologies laboratory**

The lab is equipped to provide the following services: fermentation of biomass from various sources, production of microorganisms, production of microbial metabolites (polypeptides, lactic acid, alcohol, antibiotics, etc), production of microbial starters for fermented foodstuffs, micro-organism extraction and separation. microbial metabolite extraction and separation, study of microbial performances in vivo and in vitro. The lab also includes small volume (1-3 litre) and large volume (10-30 litre) fermenting systems, a lyophiliser, separation and crossflow filtration systems and ancillary equipment.

ICTs – INFORMATION AND COMMUNICATION TECHNOLOGIES

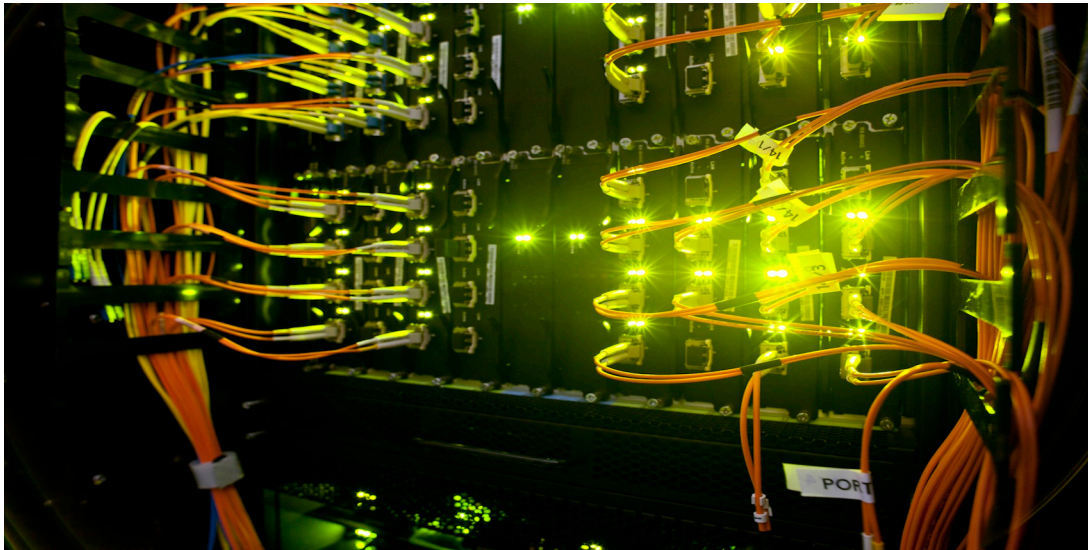
- **AIMA laboratory (Advanced Imaging and Motion Analysis)**

The AIMA laboratory (Advanced Imaging and Motion Analysis) brings together all the technology platforms supporting the DistrICT (ICT lab for medicine) located at the Alghero site of the Science and Technology Park of Sardinia. The laboratory is a fully-fledged multi-disciplinary centre, where the staff of Porto Conte Ricerche, working with the businesses and with researchers from Sassari University, performs research in the field of image analysis, studying applications mainly targeting the biomedical sector, biometry and biology. The laboratory also studies materials for applications in the field of nanotechnologies, biotechnologies and the physics/chemistry of organic and inorganic materials and biological samples, using infrared and Raman vibrational spectroscopy.





Facilities for tenant businesses



Pula Centre

TENANCY SPACES FOR BUSINESSES

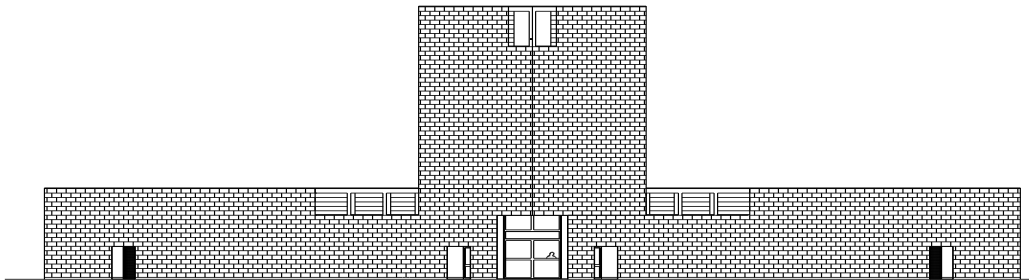
At the present time, the main Park campus has five buildings placed along a ring route and numbered 1, 2, 3, 5 and 10; the average distance between buildings is about 500 m.

The buildings have offices and laboratories, available in three types: unfurnished, partially furnished or equipped with worktops, chemical fume hoods and other basic laboratory furniture.

Office and/or laboratory premises are handed over in their present state, with the finishings, furniture and fittings described in annex 5 to the tenancy agreement; the tenancy fee includes some minor adaptation and finishing works, while any modification to the premises – which is subject to prior authorisation - is at the tenant's expense.



Building 10



The building that stands at the entrance to the park is single storey, with an equilateral triangle ground plan, with a tower rising on the angle looking towards the sea. This building hosts an orientation/reception desk and the Park's general control room.

The building has a "sealed" aspect: the outer walls are covered with granite panels. The external staircases leading to the tower have a frame in zinc-coated steel, steps in galvanised steel grating and handrails in galvanised and painted tubular elements.

Building 2



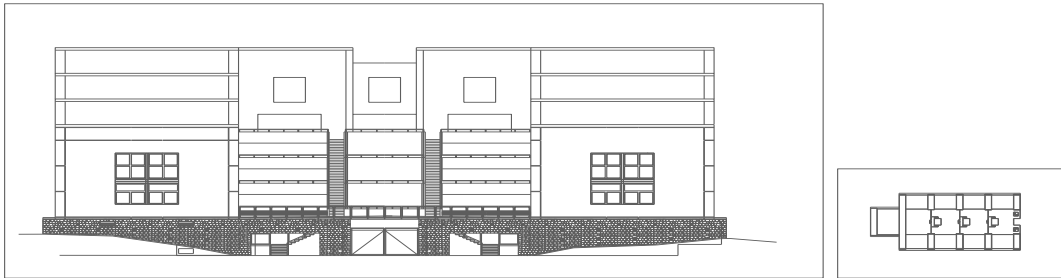
This building has three floors, including a basement for parking, utility & equipment rooms and storerooms, and two above-ground floors, with a surface area of 2,500 m² each, for offices and IT labs.

Building 2 houses the offices of Sardegna Ricerche, the laboratories of IT enterprises, the main reception, the unit responsible for general services, innovation support and information, education and training activities and catering facilities.

All spaces for use as offices and laboratories contain standard technical equipment, comprising: HVAC system, lighting system, electrical outlets and structured phone-data cabling.



Building 1



Building 1 has the same architectural layout as building 2: a basement for parking, and two above-ground floors, with a surface area of more than 2,750 m² each, for offices and IT labs.

This building is dedicated to IT and electronic R&D.

All spaces for use as offices and laboratories contain standard technical equipment, comprising: HVAC system, lighting system, electrical outlets and structured phone-data cabling.

Building 3



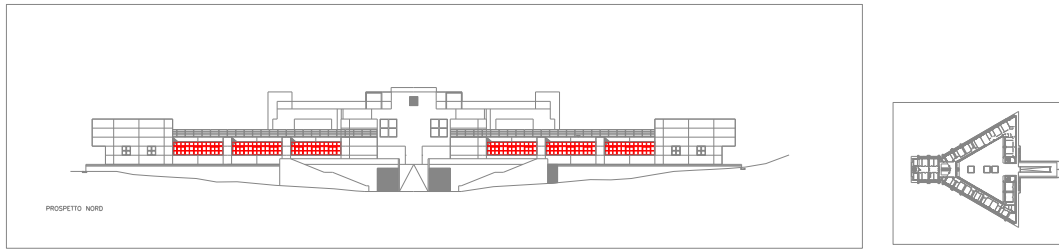
Building 3 has the same architectural layout as the other Park buildings: three floors including a basement for parking, and two above-ground floors, with a surface area of about 2,000 m² each, for offices and labs.

The operational spaces, which can host either laboratories or offices, have been equipped with water supply piping and sewer system for wet laboratories and, again for laboratory operations, with nitrogen, compressed air, vacuum and demineralised water piping systems. This building hosts the technology laboratories for bioinformatics, microscopy and genotyping.





Building 5

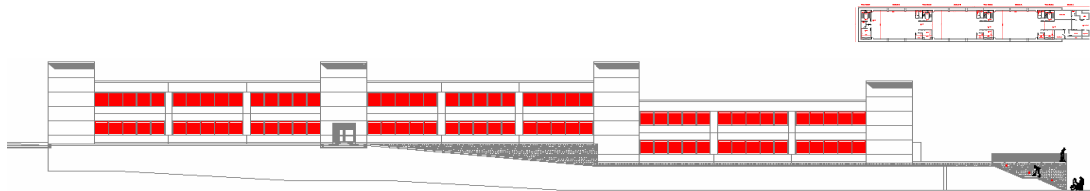


Like the other buildings, it has a basement and two above-ground floors, with the difference that the basement, besides the car park and storage rooms, also hosts the animal holding facility, a key facility where animal experiments are carried out (about 900 m² of floor space).

The operational spaces, which can host laboratories, are equipped with water supply piping and sewer system for wet laboratories and with nitrogen, compressed air, vacuum and demineralised water piping systems.

The building also hosts the Bioincubator, where in addition to standard building infrastructure, tenant companies can also access high-processivity equipment for genomic and proteomic research services, the nitrogen, helium and carbon dioxide piping systems and a UPS generator for equipment requiring no-break power.

Building 8



This building has the same architectural layout as the other Park buildings: a basement for parking and two above-ground floors, with a surface area of about 1,200 m² each, for offices and labs.

The operational spaces, which can host either laboratories or offices, have been equipped with water supply and sewer system for wet laboratories and, again for laboratory operations, the piping systems necessary for the installation of nitrogen, compressed air, vacuum and demineralised water supply are in place.

THE SURROUNDING AREA

The Park's main campus is located in an area of outstanding environmental value, covering about 160 ha, in the Rio Palaceris Valley, at the foot of the Sulcis mountain range, about 3 km from the south-western coast of Sardinia and about 6 km from the town of Pula.

The area consists of a strip of land about 500/600 m wide which runs along the course of the Rio Palaceris for about 3.5 km from the crossing of the two current access roads.



In view of the area's outstanding environmental and landscape value and in compliance with the guidelines issued by the municipal and regional authorities, the Park's design and construction has been based on strict environmental protection and enhancement criteria.

INFRASTRUCTURE

Roads

The main route inside the campus consists of a ring road linking all buildings of the first and second development phase – including those still to be built - with a total length of 4,782 m. The road is flanked by a low wall housing utility lines (phone line, fiber optic cabling and lighting).

Along the campus perimeter, the first section of a footpath has been constructed, running at a height of 100 m a.s.l., and linked at the valley bottom to the Forest Agency road: the buildings are also connected to this footpath, in a seamless continuum.

Electricity supply

Electricity is supplied to each building through individual MV/LV transformer substations according to the type of voltage (low or medium) required.

LV electricity is distributed by means of a TN-S system for supplying the buildings with power and lighting.

The user-side transformer substation of each building is equipped with two transformers, one exclusively supplying the building with light and power circuits, while the other supplies the office and lab HVAC systems. In the event of power outage from the grid (ENEL), each building is supplied by a power generator.

The electricity bills for premises given in exclusive use to tenants are payable by tenants (however, ICT Farm businesses only pay the share of consumption above 250kWh/month/business).

Fire-fighting network

The fire-fighting system consists of a main network along the ring road, and of a peripheral network, in the area of the 100 m a.s.l. footpath, supplying hydrants located close to the buildings.

Water supply and sewer network

The Park's water supply network, which branches off the water mains along State Road 195, includes a boosting station, storage tank and the Park's internal distribution network.

The sewer network conveys the wastewater to the purification plant, while rainwater is discharged into the Palaceris stream.

Security systems

Security at the centre is assured by a comprehensive system which includes a CCTV system and access control at each building.

The security system comprises control rooms in each building and a main control room, still undergoing construction, in building 10, which will pool all the data. The system is able to relay to the central station all events (alarms, breakdowns, ID card swipes, etc.) recorded by each building's security subsystems.





Adjacent to the Park campus there is a Forest Agency station with a fleet of three fire-fighting vehicles with water tanks and staff trained to cover emergencies (a staff of 47 persons including 24 trained for fire-fighting).

In the event of a fire, emergency response is provided, in addition to these Forestry guards, also by those stationed at the Pula station and by the local Fire-fighting station.

NETWORKS AND TELECOMMUNICATIONS

Data transmission and phone network

All buildings on the main campus are connected by a 1 Gbps fiberoptic backbone for data transmission and copper cabling for phone lines.

In particular, phone connection consists at the present time of three primary accesses providing 30 urban lines shared among Park users.

Some Wi-Fi areas will be set up for connection to the Park's network, providing both Internet and phone access.

Data network

Internet connection is provided by a dedicated 100 Mbps line shared among all users. This line reaches the hub-and-spoke point in building 10: it then follows the campus backbone and connects through shunts to the individual buildings.

The Park is a node of the RTR, the Region's Telematic Network, which is connected via optic fibre from the hub and spoke centre to the RTR access point at Sa Illetta.

SHARED-USE SPACES

All common-use facilities are located in building 2 (Services and reception centre) and are available to tenant companies, in accordance with the priorities and methods set out in the relevant regulations.

Auditorium

It occupies a two-level area at one end of building 2 and seats 150. Auditorium equipment, adaptable to a range of different events, includes audio-visual systems, such as a wall with screens for various types of projection, simultaneous translation booths, videoconferencing system, overhead projector, video projector, audio-visual control room etc.

Meeting rooms

Two rooms, with floor space of about 70 m² each, located on either side of the hall of building 2.

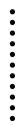
The first can seat 15-20 persons and is mainly intended for executive meetings. It is also equipped for videoconferencing and for meetings featuring audiovisual and multimedia presentations (Communications Room).

The second room, with a seating capacity of about 35-40, is mainly intended for PR and promotional events, i.e. briefings to visitors and external operators. Both rooms feature audiovisual communication equipment, including overhead projector, video projector, DVD player, slide projector, screens and writing boards. (Conference Room)

Training classrooms

Building 2 has an area of more than 200 m² dedicated to education and training activities.

To ensure adaptability to different requirements, the rooms have soundproofed sliding partitions thus making it possible to modify their size. Training facilities include a computer





classroom, fully equipped with teaching aids (video projector, overhead projector, slide projector etc.), and a seminar room with partition panels.

Library

A spacious area within building 2 houses a well-stocked library with books, journals and dailies for research, consultation and reading.

Foyer

A large area across the landing from the Auditorium and overlooking the hall. The foyer can be used for small exhibitions or science awareness events.

Bar – Cafeteria – Restaurant

Catering facilities are located on the ground floor of building 2: they look out over the square which can also be used for outdoor eating. The catering facilities have a total surface of about six hundred square metres, offering a range of services from quick snacks at the bar to cafeteria lunch service, to restaurant service. The cafeteria and restaurant have total capacity of more than 150 persons, sized to meet the Park's estimated demand.

There is also a reserved room for table service on request, which can accommodate about 20 persons.

LOGISTICS AND MAINTENANCE

Security and surveillance

Surveillance is provided by armed guards from 19:00 to 07:00 hrs on weekdays and 24 hours a day on weekends and holidays.

The security service includes permanent manning of building 10 where the control room with CCTV terminals and alarm systems for the other buildings are located, and night-time patrol service by armed guards.

At building 2, a reception service is available on weekdays from 07:00 to 09:30 hrs and from 16:30 to 20:00 hrs.

Transport to and from Cagliari

The public bus service (ARST) makes five daily runs.

From Cagliari it can be boarded at 6 different pickup points starting from the terminus at the following times: 7.45, 8.45, 13.00, 16.30, 17.45.

From the Park heading for Cagliari, the bus departs at the following times: 9.00, 10.00, 14.10, 17.45, 18.30.

On-campus transport

For moving between the different Park buildings, the Park shuttle bus makes both scheduled runs as per the timetable, and on-request runs at other times.

Visitor reception

The service includes gate check and announcement of guests and visitors, who can also be accompanied by a Park vehicle. For groups and delegations, a shuttle service with Park vans is also available.

Use of common areas and facilities

The service covers the use of common spaces. The conditions, methods and timing of its delivery are set out in a specific regulation.





Ordinary and extraordinary maintenance

The tenancy package includes: all extraordinary maintenance of buildings, infrastructure, utilities and landscaped areas around the buildings, as well as the ordinary maintenance of shared areas and facilities.

The costs of the ordinary and scheduled maintenance of premises assigned for exclusive use to businesses, with the exception of Sardegna Ricerche subsidiaries, is broken down as follows:

- ✓ Labour costs for maintenance work are payable by Sardegna Ricerche
- ✓ Replacement materials or consumables are payable by the tenant companies

The maintenance service includes infrastructure works (upgrading of utilities, subdivision and organisation of premises, etc.) deemed necessary by Sardegna Ricerche to adapt the premises and their furniture and fittings to meet users' requirements, in accordance with the Park's rules.

The service also includes ordinary and extraordinary maintenance of all outdoor spaces (roads, yards and squares, footpaths, etc.), and ensures immediate response to risk events (e.g. fire outbreak, obstacles on the road, etc.).

Common supplies and utilities

This service concerns the supply of gas, diesel for power generators, DI water resin regeneration, etc. to all plants and equipment supplying the buildings, hence shared among several users. Costs will be allocated among users in proportion to the floor space (m²) assigned to each, on the basis of the building's Rules.

Cleaning of common-use spaces

This service ensures regular cleaning of the common spaces in buildings 2 and 10, including the squares and terraces of all buildings.

Water, purification and urban solid waste

This service concerns water consumption for civil use, operation of the sewage treatment plant, and management of collection points for urban solid waste. It does not include payment of the waste disposal tax, which under the law is payable by the party occupying the premises.

Electricity

This service includes lighting of common areas and streets, as well as electricity supply to common-use facilities.

Phone & data lines and cabling

Ordinary and extraordinary maintenance of phone and data line cabling and equipment is provided. The tenancy package also includes the operation and technical assistance of telephone access points, allocation of the phone lines available, connection of the businesses' local networks to the campus backbone and allocation of IP addresses.

PERSONAL SERVICES

Info desk

The info desk provides information on the local area: entertainment, eating out, accommodation, transport, and special terms reserved for Park tenants.

Events

This service is available for the organisation of social and cultural events, exhibitions and miscellaneous events etc.





Alghero – Tramariglio centre

TENANCY SPACES FOR BUSINESSES

Office and lab spaces for businesses are available in the “Research” building. The buildings are furnished with desks, cabinets, chairs, data transmission line and phone line. The laboratories, which come in different sizes, are provided with worktops, benches, refrigerator and/or freezer, reagent cabinets, and cabinet for glassware. The setup and furnishings are adapted to suit the companies’ requirements as far as possible.

THE SURROUNDING AREA

This centre is located in the locality of Tramariglio, in the municipality of Alghero, less than 17 km from Alghero-Fertilia airport, in one of the most scenic spots on the Coral Riviera. An enchanting place, where nature, history and culture form a unique backdrop to one of the most vibrant economies on the island.

The centre is about 8 km from the rocky headland of Capo Caccia, at whose foot opens the entrance to the famous Neptune’s Cave, which can be reached by boat or by walking down a panoramic stairway of 656 steps cut into the rock.

INFRASTRUCTURE

Roads

The campus has an internal road and parking spaces in front of the Research, Guest Quarters and Food technology blocks.

Electricity supply

The electrical distribution grid consists of a single medium-voltage ENEL delivery point and a dedicated power transformer station (two 500 kVA resin transformers and one 600 kVA transformer) which feeds the buildings through a power centre. The system also has two power generators (500kVA and 600kVA) and two main backup units (UPS) (respectively 100 kVA and 60 kVA) feeding respectively the emergency power lines and the computer and data lines. In the offices and labs, local control panels distribute normal electricity supply and backup electricity to users. Users may not make arrangements for electricity supply directly with ENEL.

Fire-fighting network

The fire-fighting system consists of a main network fed from a water tank through electrical pumps, and conveying the water to the hydrants located both inside and outside the buildings. The buildings are also equipped with a centralised fire detection system which immediately activates the emergency sprinkler system in the event of fire.

Water supply and sewer network

The Park’s water supply network, which branches off the water mains along Provincial road S.P. 55, includes a boosting station, storage tank and the Park’s internal distribution network.

The sewer network conveys the wastewater to the purification plant, while rainwater is discharged into the sea.





Data transmission and phone network

The Research and Food Technology buildings are interconnected by a fiber optic campus backbone. The main copper phone line links the Food technology, Guest Quarters and Research buildings. There is also an audiovisual connection between the Auditorium and Nettuno conference halls.

The phone line connection is provided by primary ISDN access with 15 channels allocated between Park users. A metering system makes it possible to bill users individually. Internet connection is provided by a dedicated 8 Mbps line shared by all users, with guaranteed minimum bandwidth of 4 Mbps.

Security systems

Security at the centre is assured by a comprehensive system which includes:

- ✓ General site security provided by the Centre's Security service
- ✓ CCTV surveillance of the main gate and access control in the Research building

The system includes a number of swipe card readers for door opening, controlling access to the various buildings and areas, and a main security control point in the switchboard room, where all data converge. The system relays to the central control room all events (alarms, breakdowns, ID card swipes, etc.) recorded by the card readers.

The control room also includes the control panels for the fire alarm, utility monitoring and burglar alarm systems.

SHARED-USE SPACES

The common-use spaces are located in the two buildings and include:

▶ Auditorium

The double-height auditorium, located at one end of the building, seats about 200 delegates. The auditorium, adaptable to different events, is equipped with audio-visual systems, such as a wall with screens for various types of projection, simultaneous translation booths, videoconferencing system, video projector, audio-visual control room etc.

▶ Meeting rooms

The Alghero centre has various meeting rooms, suitable for a variety of requirements.

- ▷ **Nettuno Room:** it seats up to 100 participants and is mainly intended for conferences: equipment includes screens, overhead projector, video-projector, etc. It can also be linked to the Auditorium by means of a video-conferencing system.
- ▷ **Anghelu Rujù Room:** it seats 40 delegates and is the most versatile, since it can be set up with different seating arrangements.
- ▷ **Foradada Room:** a room for small meetings, seating 12/14 persons.
- ▷ **Calik Room:** a room for small meetings, seating 12/14 persons
- ▷ **Palmavera Room:** this room, which seats 35 participants, can be used either for meetings or for teaching/training sessions.
- ▷ **Dragunara Room:** this room can seat 10/12 persons and is mainly intended for executive meetings. It is equipped for videoconferencing and for meetings featuring audiovisual and multimedia presentations (Videoconferencing Room).

All rooms are mainly intended for PR and promotional events, i.e. briefings to visitors and external operators, and feature audiovisual communication equipment, including video projectors, screens, writing boards and internet connection.





▶ **Training classrooms**

The Centre has spaces for training activities, which can be adapted to various requirements. Training facilities include a computer classroom, fully equipped with audiovisual teaching aids.

▶ **Foyer**

A spacious area next to the Auditorium entrance, close to the hall. The foyer can host small exhibitions or science awareness events.

▶ **Guest Accommodation**

The Guest Accommodation facility has 19 single rooms with queen-sized bed, 8 double rooms on two levels and 4 double rooms on one level, all with en-suite bathroom. Rooms are equipped with TV, mini bar, hair dryer and HVAC system.

▶ **Hall and Reception**

The reception and night porter service in the Guest Accommodation facility of Porto Conte Ricerche are available whenever guests are staying at the Centre.

▶ **Bar – Cafeteria – Restaurant**

The bar of Porto Conte Ricerche is open year-round from 08:00 to 15:00 hrs. When conferences are in progress, opening hours are adapted to meet the needs of participants. The cafeteria/restaurant can seat 100-120 persons. The cafeteria service (lunchtime) operates Monday thru Friday, while restaurant service (including buffets, coffee breaks etc.) is available only when guest are staying at the Centre and/or during conferences.

LOGISTICS AND MAINTENANCE

Security and surveillance

This service has been contracted out to a security firm, which provides round the clock surveillance of the Alghero centre, access control, patrolling and inspection of premises, and participates in the emergency plan.

Visitor reception

The service includes gate check and announcement of guests and visitors. For groups and delegations, a guided tour of the Park can be booked in advance.

Use of shared areas and facilities

This service addresses the use of common spaces. The conditions, methods and timing of its delivery are set out in a specific regulation.

Ordinary and extraordinary maintenance

This service provides all extraordinary maintenance of buildings, infrastructure, utilities and landscaped areas. It includes ordinary maintenance of common spaces and facilities, infrastructure and utilities (e.g. water and sewer system, HVAC system, burglar and fire alarm systems).

The maintenance service also provides immediate response to risk events (e.g. fire outbreak, obstacles on the road, etc.)

The service also includes ordinary and extraordinary maintenance of all outdoor spaces (roads, yards and squares, footpaths, etc.).



**Cleaning**

This service includes regular cleaning of all spaces, including the squares and yards outside all buildings.

Water, purification and urban solid waste

This service handles water consumption, purification plant operation, disposal of urban solid waste and of special/hazardous waste.

Electricity

This service covers lighting of common areas and streets, as well as power supply for the operation of all infrastructure and utilities.

Data and phone network

Ordinary and extraordinary maintenance of phone and data line cabling and equipment is provided. The tenancy package also includes management of and technical assistance service for the telephone land lines, allocation of the phone lines, connection of the businesses' local networks to the campus backbone and IP address allocation.

PERSONAL SERVICES**Info Desk**

The info desk provides information on the local area: entertainment, eating out, accommodation, transport etc.

Events

This service is available for the organisation of social and cultural events, exhibitions and miscellaneous events etc.





TEMPLATE Application for tenancy at the Pula (CA) and Alghero-Tramariglio (SS) Technology Park Centres

July 2011





HOW TO SUBMIT A TENANCY APPLICATION

The following parties can apply for tenancy at the Technology Park to pursue R&TD activities:

- ▶ Enterprises
- ▶ Public and private research centres
- ▶ Universities

Applicants may apply for location of either their R&D lab, or of their entire activity (the latter only if they are not engaged in industrial production).

Applicants must meet the following requirements:

- ▶ Operate in knowledge-intensive or high-tech sectors
- ▶ Pursue R&D projects with clear industrial potential
- ▶ Contribute to local and regional economic growth and employment

Applications will be assessed on the basis of the following

CRITERIA

- ▶ Consistency of the applicant's activities with the Park's technology sectors
- ▶ The applicant's scientific and technology expertise
- ▶ Potential for integration with other activities located at the main centre
- ▶ Scientific and technology profile of the activity plan
- ▶ Expected industrial applications of R&D activities
- ▶ Enhancement of the Park's image as an advanced science & technology facility

Priority will be given to private enterprises and research centres.





TO BE PRINTED ON THE APPLICANT'S BUSINESS PAPER

To:
Sardegna Ricerche
Technology Park, Building 2
Località Piscinamanna
09010 Pula (CA)
select the relevant address
Spett.
Porto Conte Ricerche S.r.l.
Località Tramariglio
07041 ALGHERO (SS)

Subject: APPLICATION FOR TENANCY at the main Park location (Pula) / (choose one) at the Alghero location of the Technology Park.

I, the undersigned _____, in my capacity as legal representative of the company

_____ wish to apply for tenancy at the main location of the Science and Technology Park of Sardinia, in the Piscinamanna locality, Pula (Province of Cagliari) or (choose one) the Alghero location of the Science and Technology Park of Sardinia, in the Tramariglio locality.

I enclose a report on the company's activities and programmes, prepared in the required format.

Contact person's details:

First name

Last Name

Phone

Fax

E-mail

Date 26/04/13

The legal representative





COMPANY DESCRIPTION TEMPLATE

1. Description of the company:

- ✓ Activities
- ✓ Staff
- ✓ Management
- ✓ Market
- ✓ Turnover

2. Current R&D programmes (if any)

For each project, indicate:

- ✓ Title
- ✓ Brief description
- ✓ Partners (if any)
- ✓ Budget and funding sources (EU, Ministry of the University and Research...)

3. Description of activities to be carried out at the Park

- ✓ Proposed activities
- ✓ Any R&D projects to be pursued at the Park
- ✓ Number of staff to be relocated to the Park (specify the number of researchers and administrative staff)

4. Tenancy requirements

- ✓ Planned tenancy start date _____

- ✓ Space requested:

▷ R&D labs: m2 _____

▷ Offices: m2 _____

▷ Other (specify)
_____ : m2 _____

- ✓ Specific lab setup requirements (if any):

- ✓ Any other requirements or relevant information: