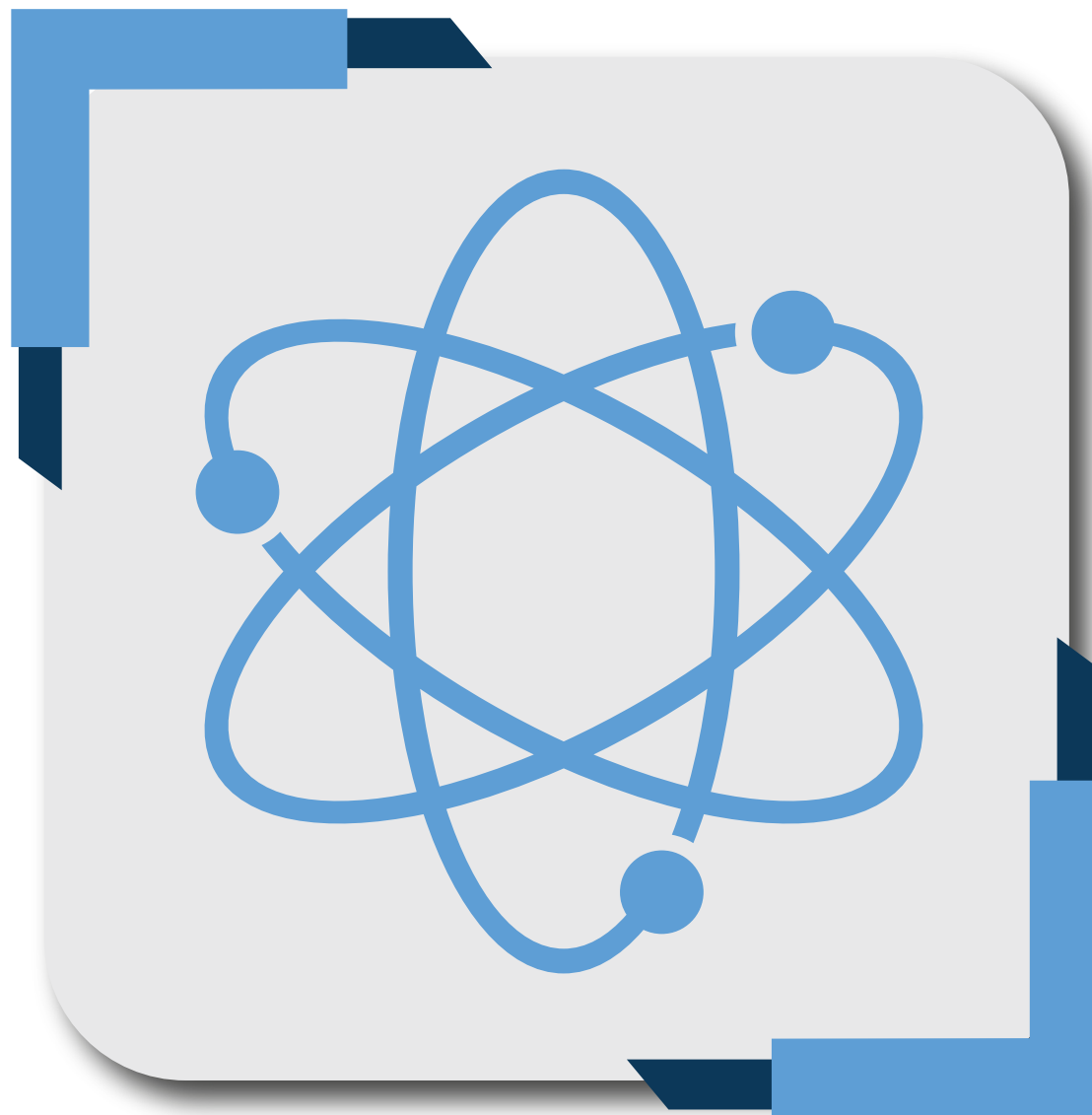




 **Sviluppo** Campania

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LIFE SCIENCES



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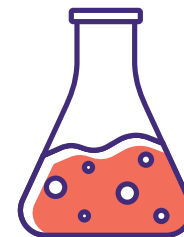
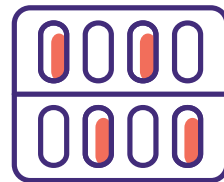
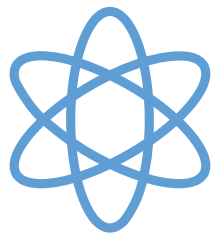
THE LIFE SCIENCES INDUSTRY IN CAMPANIA



Science and technology are among the strategic priorities for growth, and the life sciences industry is at the centre of an important development that can be traced back to the excellence of the region's academic research and the ability of companies to translate innovation into valuable resources. **Campania is a leader in Southern Italy** and competes with important regions in the rest of the country.

There are important **multinational companies and numerous small and dynamic enterprises** in the region.

There is also a network of centres of excellence in training, research and development, which are internationally recognized in terms of scientific production.





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ENTERPRISES





Tab. 1 - Distribution of enterprises. Life Sciences Chain. Campania region. Years 2019-2021

Year	2019	2020	2021
Total	719	799	868

Source: data Infocamere 2021

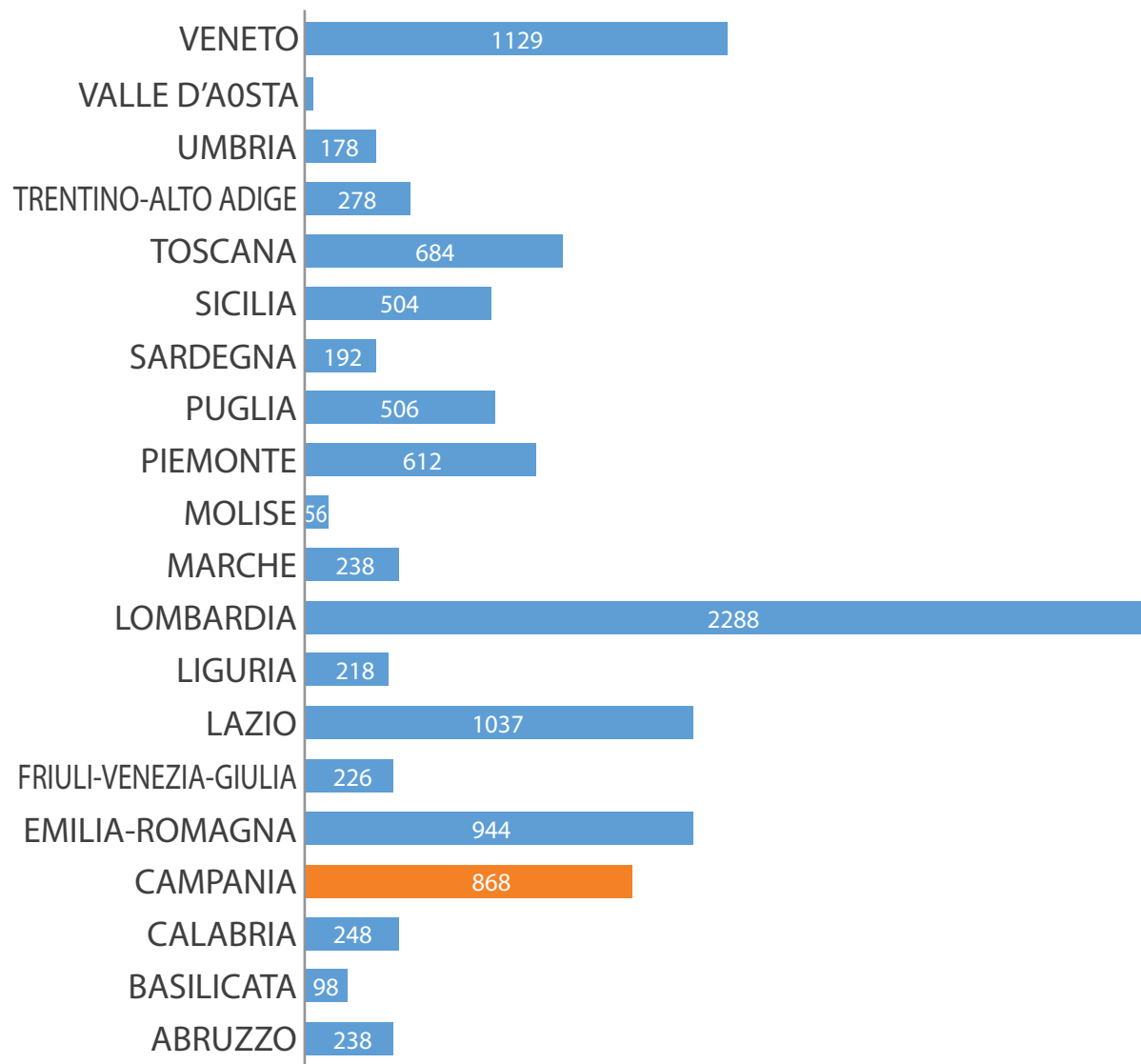
The number of companies operating in the **Life Sciences supply chain** grew significantly in 2021, numbering about **150 more companies** than in 2019 (+21%). The 64% of these companies are engaged in scientific research and development.

The figure for the number of life sciences companies in Campania is particularly significant when compared with the national figure and that of the other regions, as shown in Tab. 1: it emerges that Campania is at the top of the list when compared to all the other regions in southern Italy, but also when compared to important regions in central and northern Italy, such as Tuscany and Piedmont.



Fig. 1 – Distribuzione delle imprese italiane.
Filiere Life Sciences. Suddivisione per regioni.
Anno 2021.

**Distribuzione delle imprese
italiane per regione.
Filiere life sciences.
Anno 2021**

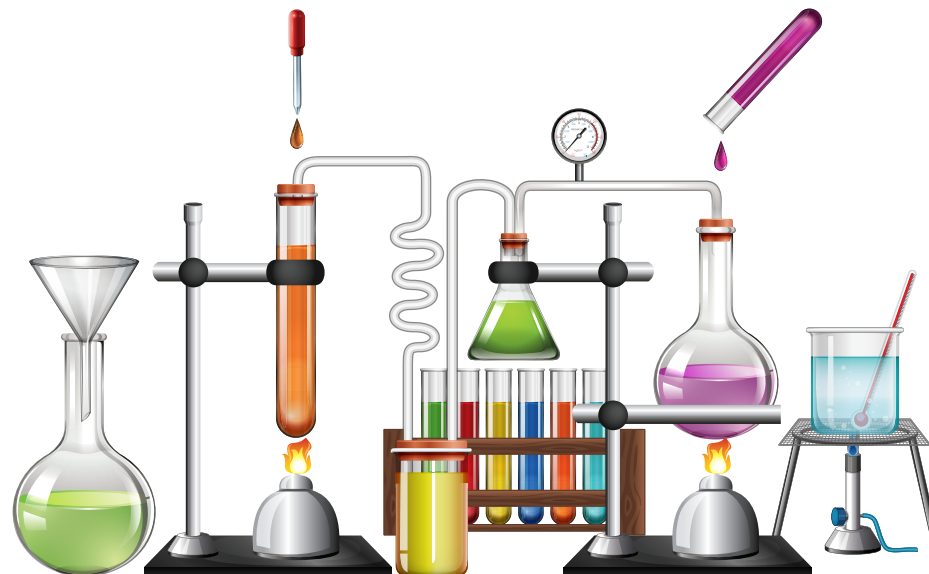


Distribution by class of employees and value of production

Referring to company size, which we see reported below in Tab. 2 and 3 (distribution by class of employees and value of production), the data for the Life Sciences sector in Campania is substantially in line with the the Italian average, which is mainly made up of MPMEs (Micro/Small and Medium Enterprises).

In fact, the mapping of enterprises by class of employees shows the strong prevalence of micro enterprises, i.e. those employing less than 10 employees (90% of the total - several start-ups), with a driving role in the growth dynamics of the entire sector; in the 10-49 bracket is 9%; only 1% of enterprises employ more than 50 employees (medium/large bracket).

Ninety-five per cent of the companies is micro/small, according to the European classification

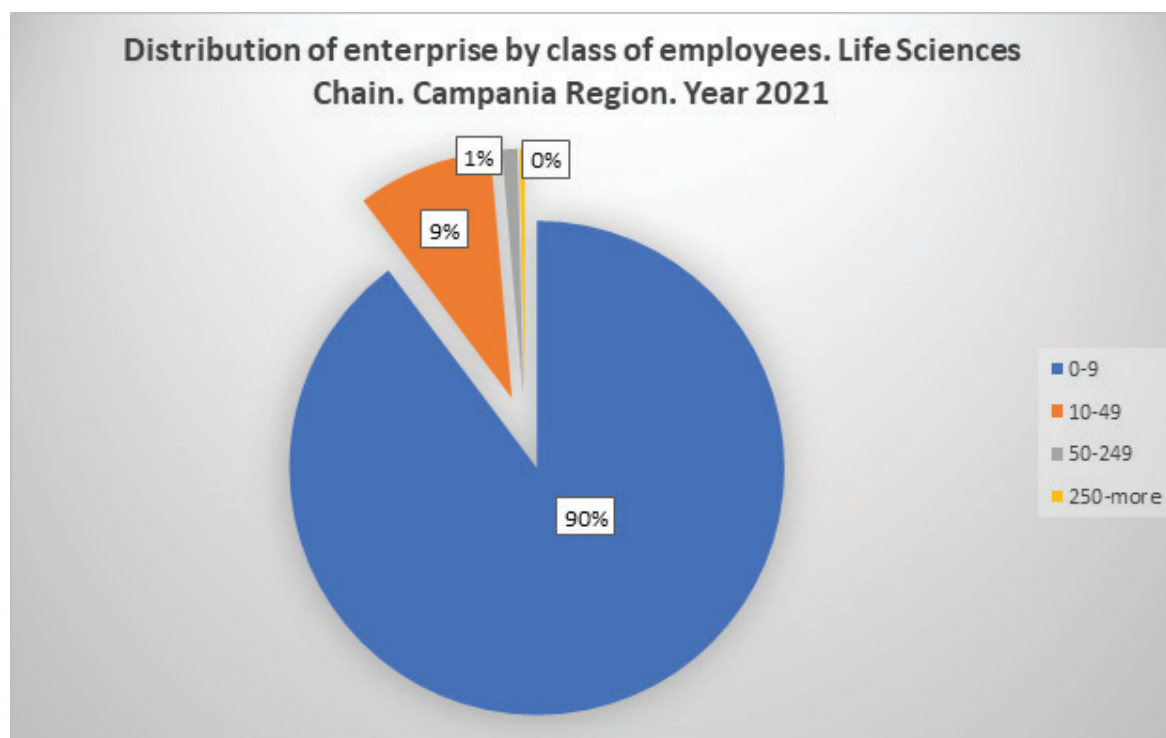




Tab. 2 – Distribution of enterprises by class¹ of employees. Life Sciences chain. Campania region. Year 2021

Class of Employees	Micro 0-9	Small 10-49	Medium 50-249	Large 250 - oltre	Total companies
Total for class	779	77	9	3	868

Fig. 2 - Distribution of enterprises by class¹ of employees. Life Sciences chain. Campania region. Year 2021



Source: data Infocamere 2021

¹ EU MPMI classification



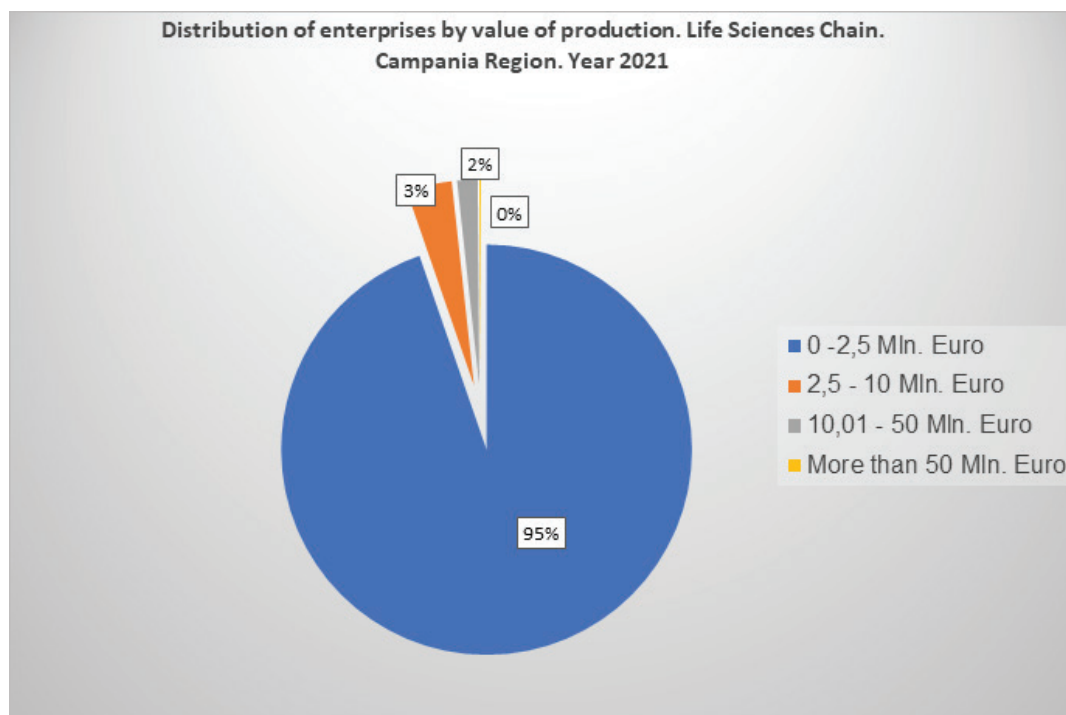


Tab. 3 - Distribution of enterprises by value of production. Life Sciences chain. Campania region. Year 2021.

0 - 2,5 Mln. Euro	2,5 – 10 Mln. Euro	10,01- 50 Mln. Euro	More than 50 Mln. Euro	Total
822	31	14	1	868

Source: data Infocamere 2021

Fig. 3 - Distribution of enterprises by value of production. Life Sciences chain. Campania region. Year 2021



Source: data Infocamere 2021



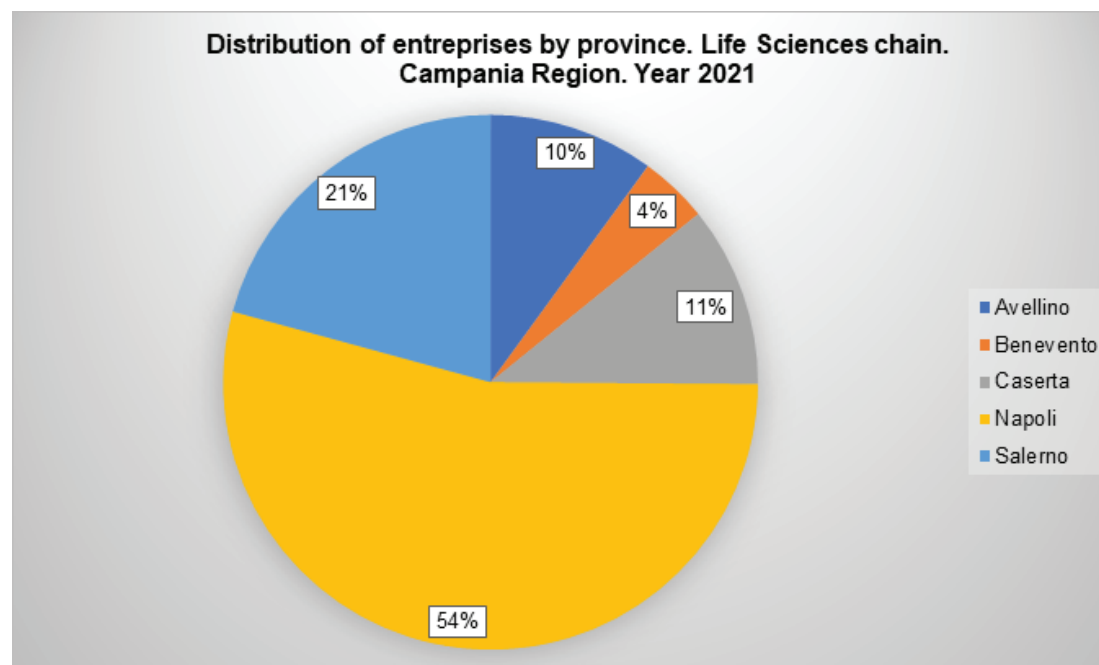


Tab. 4 - Distribution of enterprises by province. Life Sciences chain. Campania region. Year 2021

Avellino	Benevento	Caserta	Napoli	Salerno	Total
87	36	95	470	180	868

Source: data Infocamere 2021

Fig. 4 - Distribution of enterprises by province. Life Sciences chain. Campania region. Year 2021



Source: data Infocamere 2021

In the provinces of Naples (54%) and Salerno (21%) are concentrated 3 out of 4 companies in the entire region, while the remainder is divided mainly between Caserta (11%) and Avellino (10%), with Benevento accounting for the remaining 4%.





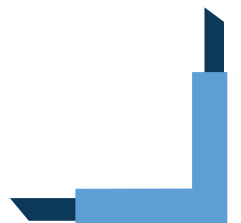
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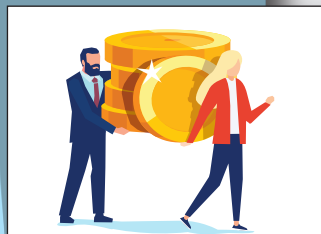
INCENTIVES AND FINANCING²

● ● ● ● ●

²Source: incentivi.gov.it / mise.gov.it / invitalia.it – February 2023



**New Sabatini Green
(since 1st of
January 2023)**



Subsidy made available by the Ministry of Enterprise and Made in Italy. The Target is to facilitate companies' access to credit and increase the competitiveness of the production system. It supports investments to purchase or lease machinery, equipment, plant, capital goods, as well as software and digital technologies. As of 1 January 2023, the 'Sabatini Green' programme started supporting SMEs' investments in new facilities, plant and equipment, with low environmental impact, as part of programmes aimed at improving the eco-sustainability of products and production processes.

**Contributions Machinery 4.0
Ministry of Economic
Development**

**Digital Export Bonus MAECI
Ministry of Foreign Affairs and
ICE Agency**



Tax credit aimed at supporting companies investing in new tangible and intangible capital goods for the technological and digital transformation of production processes.

Non-repayable contribution aimed at supporting manufacturing micro and small enterprises in their internationalisation activities through digital solutions

Grow in the South Fund

It provides for the acquisition of shareholdings, mainly minority shareholdings, in the risk capital of small and medium-sized enterprises with registered offices and operations in the eight regions of southern Italy: Abruzzo, Basilicata, Calabria, Campania, Molise, Apulia, Sardinia and Sicily.



Development Contracts

Facilities for large-scale strategic programmes (at least EUR 20 million for industrial development and environmental protection and 7.5 million euro for processing and marketing of agricultural products for the agricultural product processing sector). Development Agreement implies a fast track for resources, a reduction in time and greater involvement of the administrations.

Southern Investment Bonus 2023

Tax credit in favour of companies purchasing new capital goods intended for production facilities located in southern regions. It is granted in the form of a tax credit ranging up to 45% of the expenditure incurred, depending on the characteristics of the enterprises concerned and the area in which the production structure is located.





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ZES - SPECIAL ECONOMIC ZONE



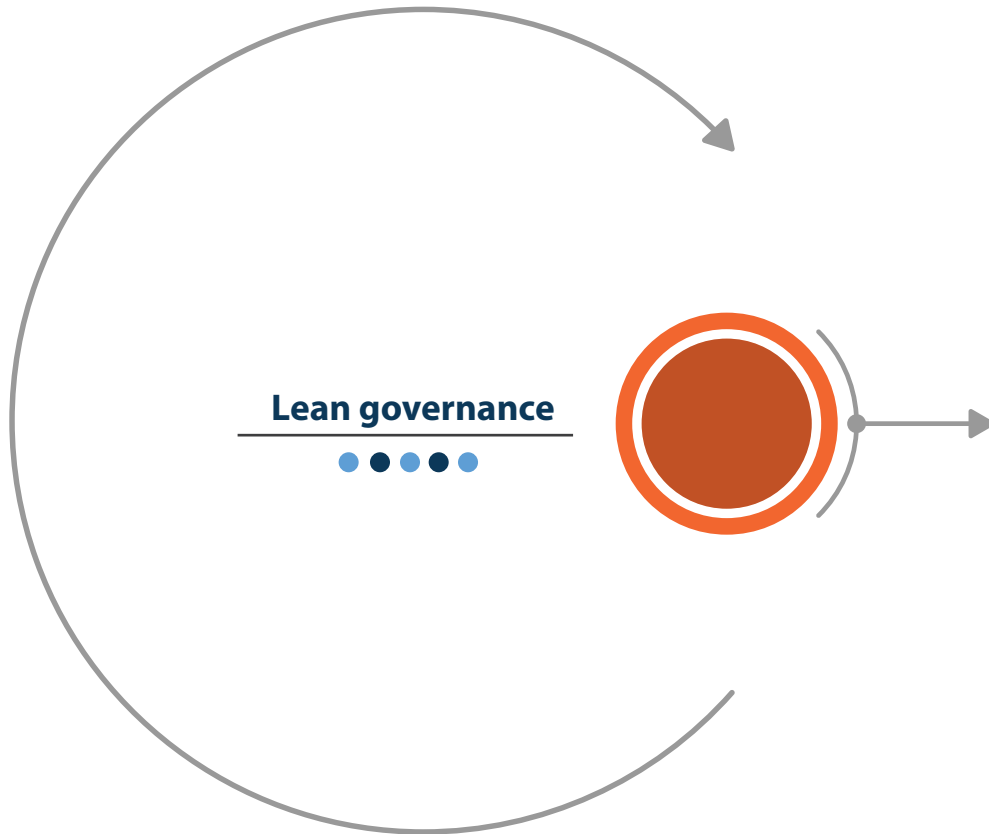
ZES, **Campania's Special Economic Zone**, according to the Regional Strategic Plan, **covers 37 of the 550 municipalities in the region**, an area populated by **2,043,800 inhabitants** (35% of the regional population), made up of **26 'strategic' areas** where there are production facilities, ports, interports, industrial development areas (ASI), and PIP areas.





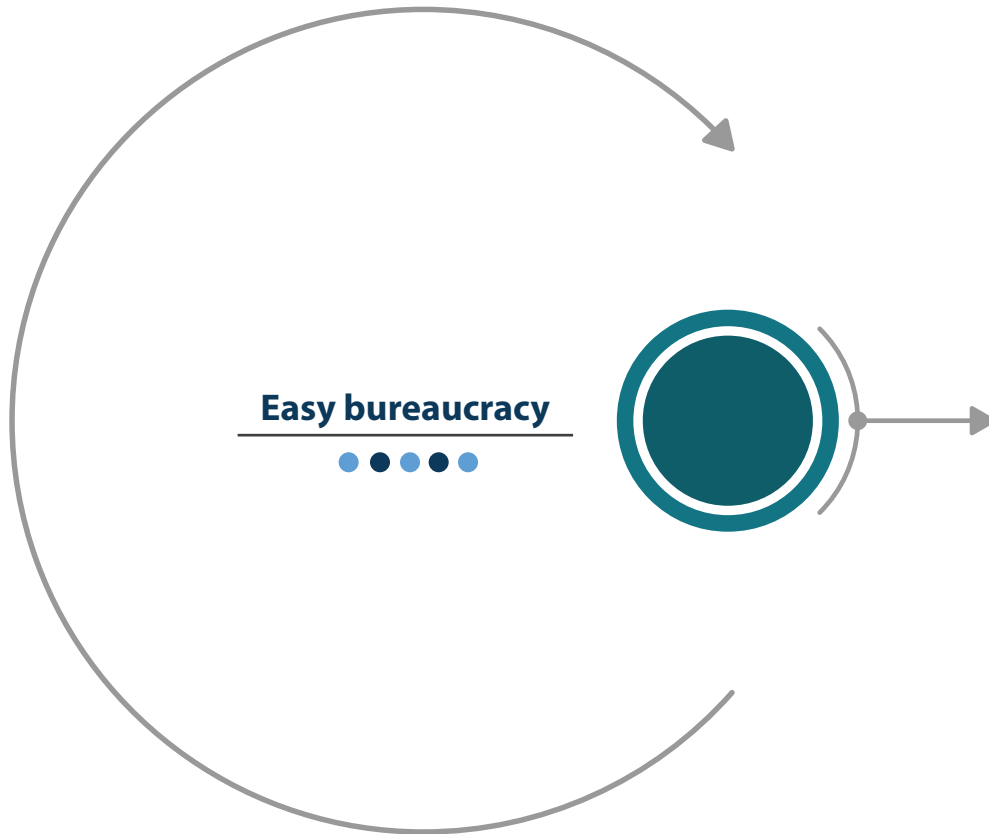
BENEFITS SETTLEMENT IN ZES





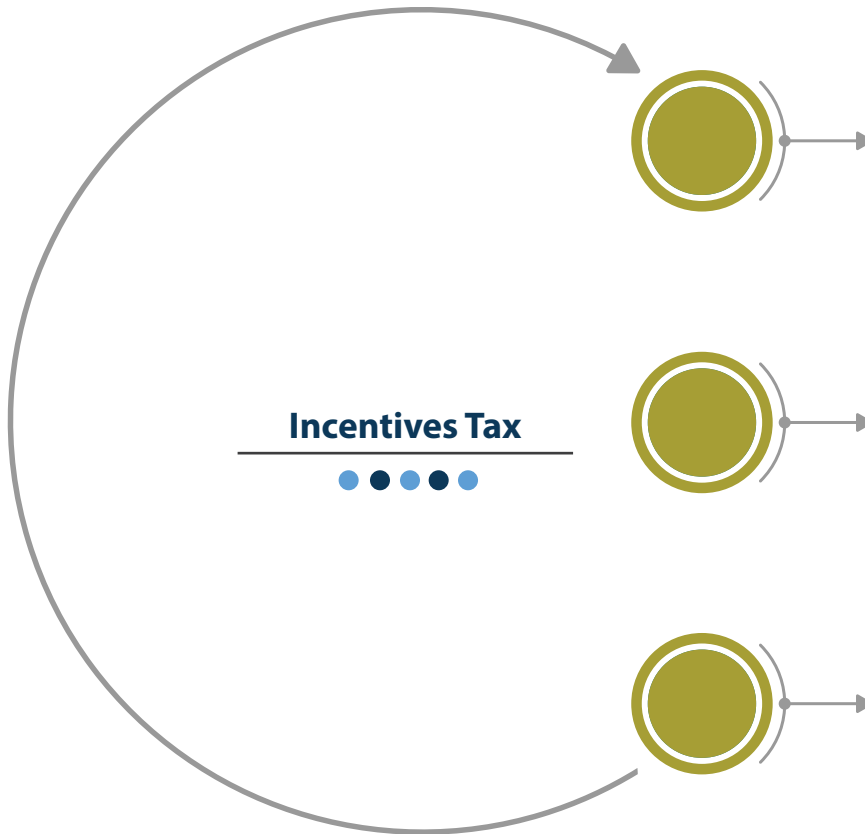
The ZES is managed by an Extraordinary Commissioner with special powers as the main interlocutor for investments.





Investment programmes enjoy a simplified and speeded-up administrative process thanks to reduced procedural deadlines, a single authorization and a dedicated desk.





Incentives Tax



25% credit of the investment (productive and real estate), for large companies, 35 per cent for medium-sized companies and 45 per cent for small companies, up to EUR 100 million for productive investments and investments in real estate, (also through leasing contracts);

Income tax for activity in ZES reduced by 50%, starting from the tax period in which a new activity is undertaken and for the following six tax periods;

Partial contribution exemption for private sector employers for the period 2021-2029. The relief is 30% of social security contributions payable until 31 December 2025; 20% of social security contributions payable for the years 2026 and 2027; 10% of social security contributions payable for the years 2028 and 2029.

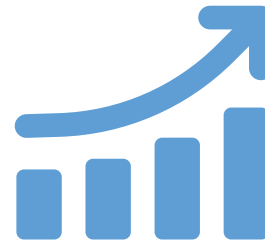




IMPORT/EXPORT. LIFE SCIENCES. CAMPANIA REGION. YEAR 2021

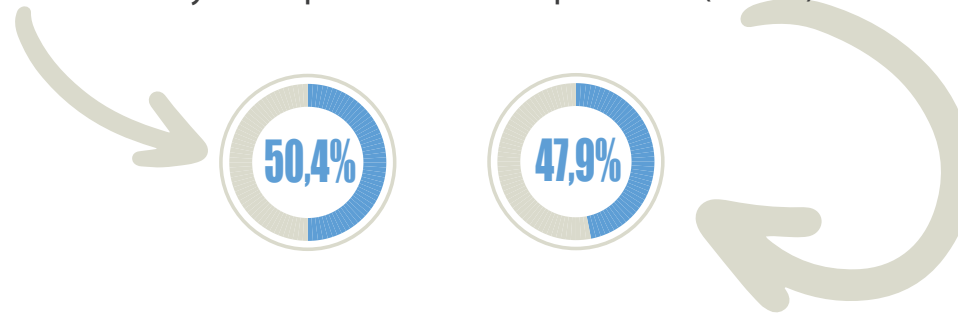


The total value of exports 2021 of the Campania region in the Life Sciences sector for the product classes listed is almost **102 million Euros**



in crescita rispetto al 2020

Medical and dental instruments and supplies represent 50.4% to exports, followed by basic pharmaceutical products (47.9%).

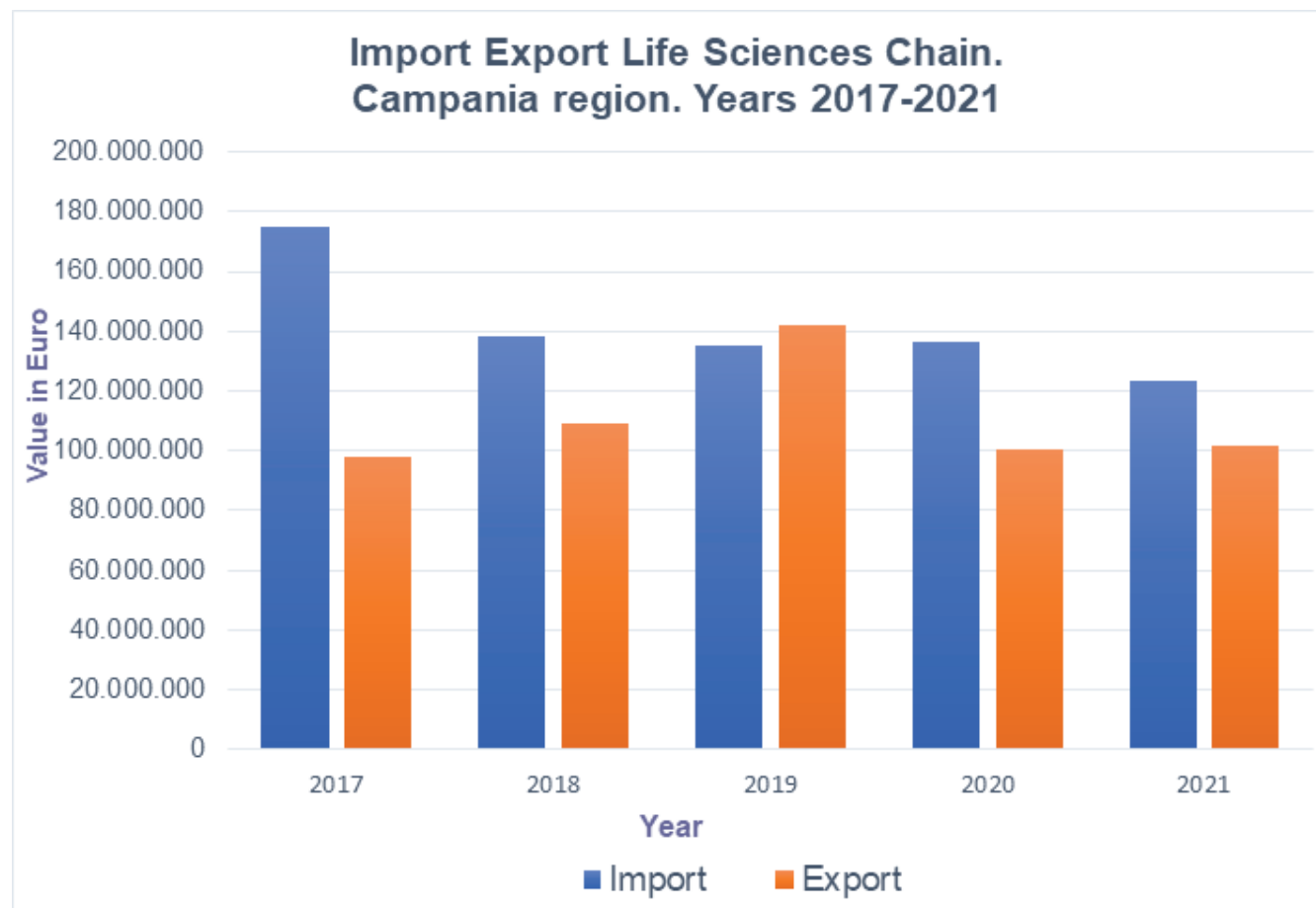


Tab. 5 - Import-Export Value. Life Sciences Chain. Campania region. Years 2017 – 2021

	IMPORT					TREND IMPORT 2020-21	EXPORT					TREND EXPORT 2020-21	BALANCE IMPORT/EXPORT 2021
	2017	2018	2019	2020	2021		2017	2018	2019	2020	2021		
TOTALE	174.684.029	138.119.837	135.221.968	136.666.820	123.400.158	▼	97.922.819	109.028.393	141.738.539	100.394.634	101.929.976	▲	21.470.182

Source: Coeweb Istat Data Warehouse foreign trade statistics. Cumulative data 2021

Fig. 5 – Import-Export Value. Life Sciences Chain. Campania region. Years 2017 – 2021



Source: Coeweb Istat Data Warehouse foreign trade statistics. Cumulative data 2021



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TRAINING AND INNOVATION FOR THE LIFE SCIENCES INDUSTRY IN CAMPANIA





Campania ranks among the **first in Italy for number of universities and educational offerings in the Life Sciences sector**: University of Naples Federico II, University of Campania Luigi Vanvitelli, University of Sannio, University Parthenope, University of Salerno offer educational courses related to the sector such as: pharmacy, biotech, biology, chemistry, medicine and biomedical engineering.



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II

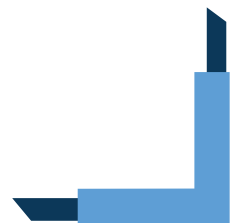
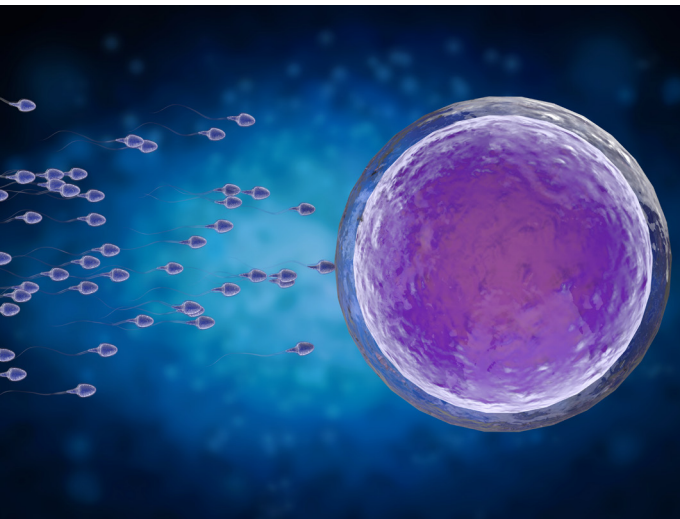


UNIVERSITÀ DEGLI STUDI
DEL SANNIO Benevento





At the University of Naples Federico II, in collaboration with the **multinational company Merck**, the Research and **Innovation Project, Fertility Training Center for the training** of gynaecologists and embryologists from all over the world and a technology hub, which includes all the innovation activities of the Fertility division and the PhD in **'IT for Health'** for the training of information technologists, able to carry out research activities alongside Life Sciences researchers, was launched in 2019.



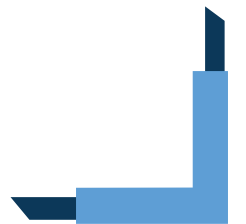
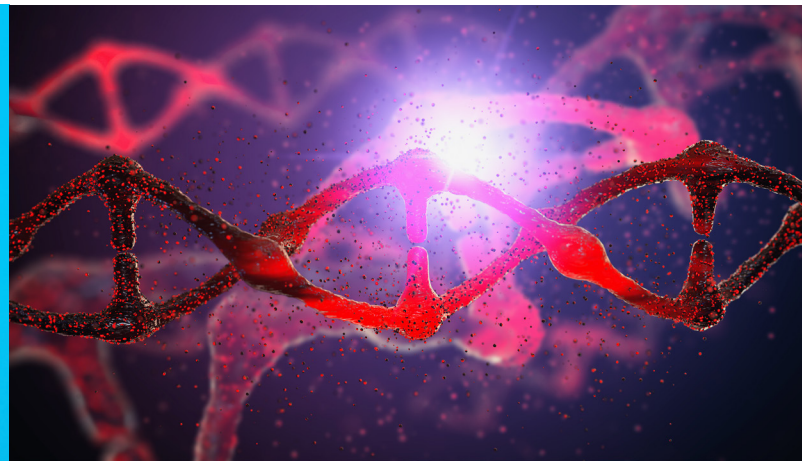


European Research Council
Established by the European Commission

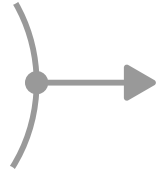


Telethon Institute of Genetics and Medicine

It deals with the study of the genetic basis of diseases in order to develop innovative therapies with research projects along three main lines: Cell Biology, Genomic Medicine, Molecular Therapy, also attracting prestigious international funding such as that of the European Research Council (ERC).



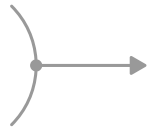




CABHC@CRIB Napoli - Centre for Advanced Biomaterials for Healthcare

Designs and develops materials and technologies for the biomedical sector, in 1,200 square metres of well-equipped laboratories inside the 'Mostra d'Oltremare'.

RESEARCH CENTRES AND INSTITUTES/IRCSS AND HOSPITALS



The Foundation was established in 2012 through a joint initiative between the Salerno Medical School Foundation and the Massachusetts General Hospital of Harvard University. It conducts research of excellence on the interaction between nutrition and health.



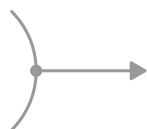
Scientific Hospital and Care Institute (IRCCS), one of the most significant healthcare facilities in southern Italy in the field of oncology.



Highly specialised health centre of national importance: plays a leading role in emergency health care.



SDN S.p.A. Foundation aims to produce and disseminate scientific knowledge in the field of diagnostics.



Founded in 1872, it is among the most important research institutions in the fields of marine biology and ecology.





TECHNOLOGICAL DISTRICTS



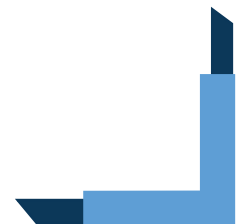
Public-private non-profit consortium company, established in 2013 and recognised by the Ministry of University and Research as a High Technology District. It provides support services for business development, research exploitation and opportunities for integration and networking in the broad Life Sciences sector. It represents the Campania Region in the ALISEI National Life Sciences Cluster and is an official member of the Council of European Bioregion (CEBR) and the European Biotechnology Network (EBN).



A consortium between several universities in Campania and elsewhere, CNR and others, it carries out doctoral projects on topical issues in scientific research and is also an incubator for companies in the biotechnology research and Information and Communication Technology sectors.



An inter-university research centre with considerable expertise, complex instrumentation and unique pilot plants make it a driver of innovation.





CONSORTIUM COMPANIES AND PUBLIC-PRIVATE AGGREGATIONS



A non-profit consortium company operating in the field of molecular biology and advanced biotechnologies applied to human health, a centre for advanced training for researchers and scientists in the field of Research and Diagnostics of genetic diseases.



Company established in 2007 is a research organisation with several aims: industrial research and pre-competitive development creation of favourable conditions for the attraction of industrial investments in the biotechnology area in Campania, support of the local production fabric, business incubation, training of highly specialised professionals in the chemical-pharmaceutical sector.





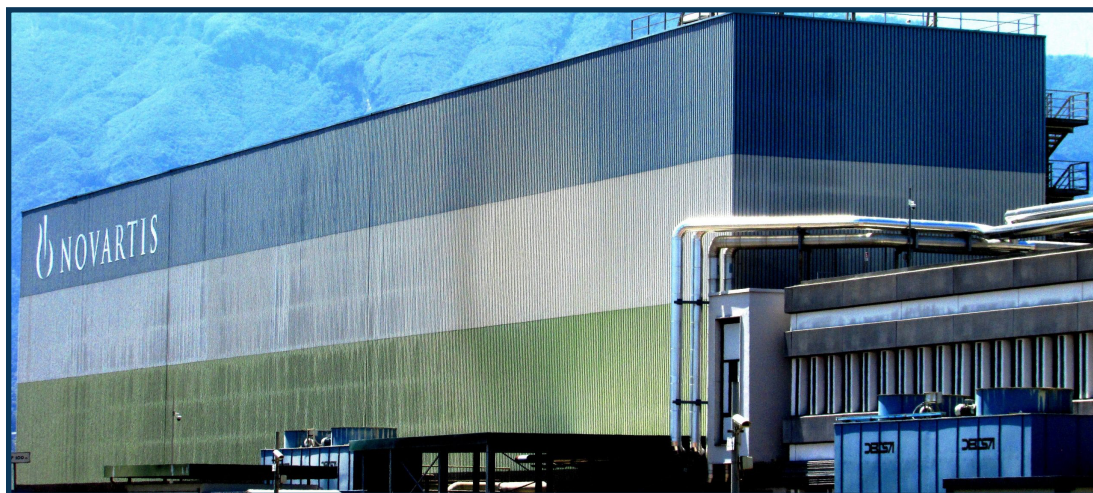
MULTINATIONAL COMPANIES



The plant in Torre Annunziata, in the province of Naples, is one of the Group's most important industrial poles, and one of the largest pharmaceutical plants in southern Italy (around 450 employees and a direct allied industry of around 30 people).

In 2019, it produced 91 million packs of tablets, destined for over 100 countries. Significant investments have been made in recent years to modernise technology, increase production capacity, environmental sustainability and quality, extend the production area, and install new packaging lines, made in Italy with the most advanced technology in the sector.

During the Covid-19 crisis, the plant was opened to start-ups, research centres and companies, thus becoming a true innovation campus available to the regional ecosystem





The production site is located in the ASI industrial area of Morra de Sanctis (AV), on a total area of about 50,000 square metres, of which 20,000 square metres are dedicated to production departments and warehouses, 1,000 square metres to technical and management offices, 10,000 square metres to outdoor technical areas and services, 4,000 square metres to equipped green areas, and 15,000 square metres for future expansion. The site now consists of 4 production plants, 3 R&D laboratories (800 square metres), 2 pilot plants: biotech (350 square metres) and medicated patches (200 square metres), a modern Quality Control and an automated intensive warehouse with 7,000 pallet spaces, as well as a general service centre (training and conference room, refectory).



Integrated healthcare company with headquarters in Pittsburgh, Pennsylvania. Thanks to its high clinical, management, research and training expertise, UPMC is among the leading healthcare systems in the United States. A centre resulting from the collaboration between UPMC (University of Pittsburgh Medical Center) and Casa di Cura Villa Maria in Mirabella Eclano (AV) is operational in Campania.





Il centro di ricerca di Piana di Monte Verna è specializzato nello sviluppo di biotecnologie industriali. È il risultato della riconversione di un centro di ricerca di eccellenza destinato alla dismissione, acquisito da Novamont nel 2012.

Azienda sanitaria integrata con sede principale a Pittsburgh, Pennsylvania. Grazie alle sue elevate competenze cliniche, gestionali, di ricerca e formazione, UPMC è tra i sistemi sanitari leader negli Stati Uniti. In Campania è operativo un centro frutto dalla collaborazione tra UPMC (University of Pittsburgh Medical Center) e Casa di Cura Villa Maria di Mirabella Eclano (AV).



Multinazionale che raccoglie e fraziona il plasma umano al fine di produrre e distribuire prodotti terapeutici plasmaderivati da utilizzare nel trattamento di malattie, patologie e condizioni gravi quali l'emofilia e le immunodeficienze. Ha sede, in Campania, a Sant'Antimo (Napoli).





Biopharmaceutical company operating in the Primary Care (pharmaceuticals available in pharmacies, supplements and medical devices) and BIOTECH (therapies for the treatment of rare orphan diseases) sectors. In Campania it is based in Naples.



Italian company among the world leaders in the production of active pharmaceutical ingredients and contract manufacturing services. In Campania it is based in Capua.



Global provider to the pharmaceutical, bio-pharmaceutical and life science industry, specialising in pharmaceutical manufacturing (Contract Manufacturing Division), and in the development, registration and licensing of new drugs and medical devices (Pharma Division). Its legal and operational headquarters are in Capua (CE).



Global provider to the pharmaceutical, bio-pharmaceutical and life science industry, specialising in pharmaceutical manufacturing (Contract Manufacturing Division), and in the development, registration and licensing of new drugs and medical devices (Pharma Division). Its legal and operational headquarters are in Capua (CE).





A multinational company specialising in the production and marketing of food supplements, cosmetics and medical devices. It has its registered and administrative headquarters in Piano di Sorrento (NA), the logistics office is located in Mercato san Severino (SA).



Company specialised in research, development, manufacture and marketing of medicinal specialities and medical devices both for its own account and for third parties. It is based in Fisciano (SA).



Founded in the distribution of medical devices and drugs. Over time, the company developed an 'industrial' project, acquiring the necessary technical skills to manufacture own-brand products. The current Industrial Units are involved in several product lines: Farmex and Medical. It is based in Somma Vesuviana (NA).



Company specialised in the study of bio-pharmaceutical extracts, in particular Triticum Vulgare. The production site of Farmaceutici Damor is located in Naples. It has a size of over 16,000 square metres. It completely controls the manufacturing process of products containing the particular Aqueous Extract of Triticum Vulgare, from the Active Ingredient to the Finished Product with a complete state of the art LQC.

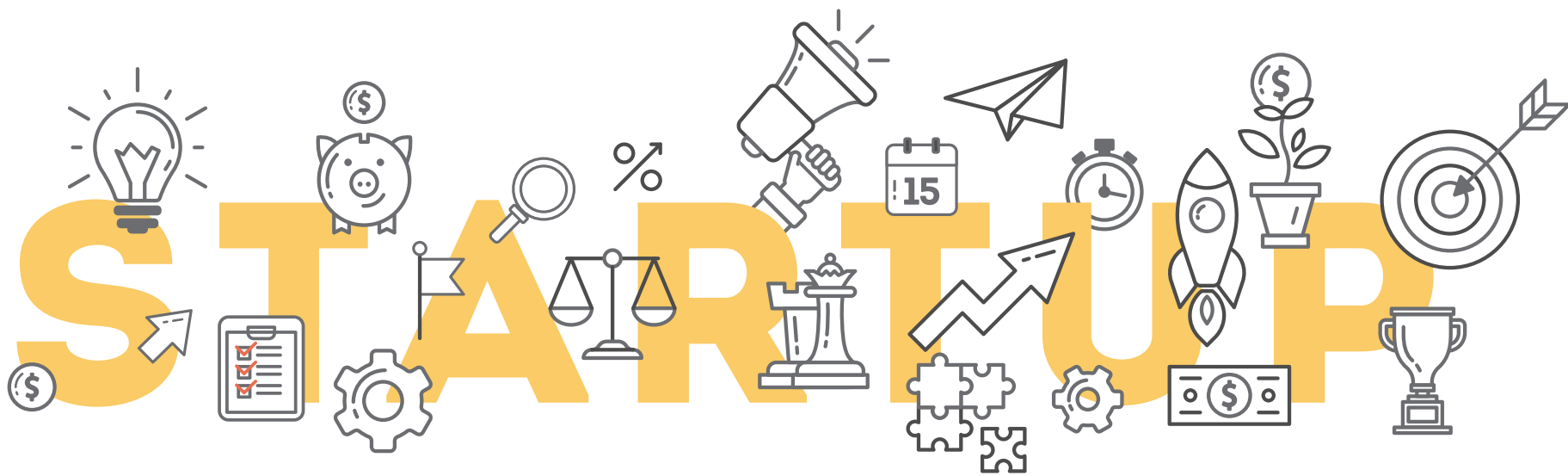




BUSINESS SERVICES



Early Stage Combined Accelerator for start-ups based on innovative materials. It manages technology transfer and innovation advisory activities for researchers worldwide, investing in new materials-based initiatives and supporting researchers to enhance their research activities by protecting intellectual property, providing funds for industrialisation and market entry of innovative products and services. Materias ecosystem of partners consists of research institutions, such as universities and research centres, and the network of industrial corporations.





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ELEMENTS OF INNOVATION





BEST PRACTICE



Regional support to the Life Sciences sector

Technology Transfer investment programme consisting of three steps:

1

Regional strategic research infrastructures
to support the establishment of networks and poles of the main research infrastructures in Campania engaged in the fight against oncological pathologies

2

Technological Platforms
to strengthen research, development and innovation capacities and foster processes for the economic valorisation of innovation in the fight against oncological pathologies.

3

Campania Terra del Buono to support technology **transfer for innovative enterprises** aimed at promoting collaborative Research & Development projects between SMEs and research organisations and at promoting the dissemination of knowledge.

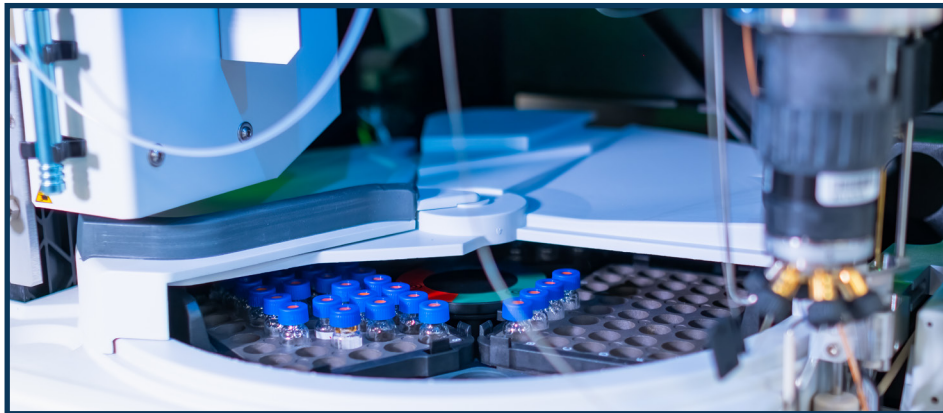


Another important initiative is the **Rete Oncologica Campania** (Campania Oncology Network), nine oncology centres operating in the Campania region that are linked to all the oncology centres of the Campania local health authorities, improving the overall effectiveness of therapies and simplifying treatment management for patients and families. Coordination entrusted to the National Cancer Institute - 'Pascale Foundation', a centre of excellence in the field of oncology.

The interregional oncology convention 'AMORE' (Mediterranean Oncology Network Alliance)

It involves the National Tumour Institute - 'Pascale Foundation' of Naples, the Tumour Institute of Bari IRCCS Giovanni Paolo II, and the Oncology Reference Centre of Basilicata CROB of Rionero in Vulture, in order to network and optimise the professionalism present in each centre, share research lines, and an IT platform aimed at obtaining Big Data.

A further intervention to support Life Sciences is the one carried out in favour of Rare Diseases and Neurosciences: 20 million Euro have been allocated to support research, experimental development and innovation projects in the field of rare diseases and neurosciences.



NEMÓ CLINICAL CENTRE

The largest highly specialised Centre of Excellence for the treatment of neuromuscular diseases opened in Naples in October 2020, at the Monaldi Hospital in Naples, thanks to the collaboration with the NeMO Clinical Centre, the Telethon Foundation and the TIGEM Research Centre in Pozzuoli. Fifth site in Italy of the NeMo Centre, it treats adult and paediatric patients, totalling around 2,000 people per year.

BIOUNIVERSA

Founded in 2009 as a spin-off of the University of Salerno.

It develops Diagnostic and Therapeutic products that exploit the Founders' discoveries on the biological properties of the BAG3 protein and in particular on its role in the modulation of cell death. Biouniversa's technologies and patents were acquired in 2019 by Dauntless, a major Californian biotech company. This gave rise to a new company, called IntrepidaBio, in which Biouniversa is a shareholder. The objective of the newborn company remains in line with the creed of the Salerno spin-off: to develop a cure that intervenes in the immune system to combat cancer and other diseases.

ALFA INTES

A group of pharmaceutical companies involved along the entire supply chain from production, research and development to the marketing of a wide range of products strictly for ocular health. The group's entire product portfolio includes drugs, medical devices, nutraceuticals, surgical devices and high-tech diagnostic instruments.

ARTERRA

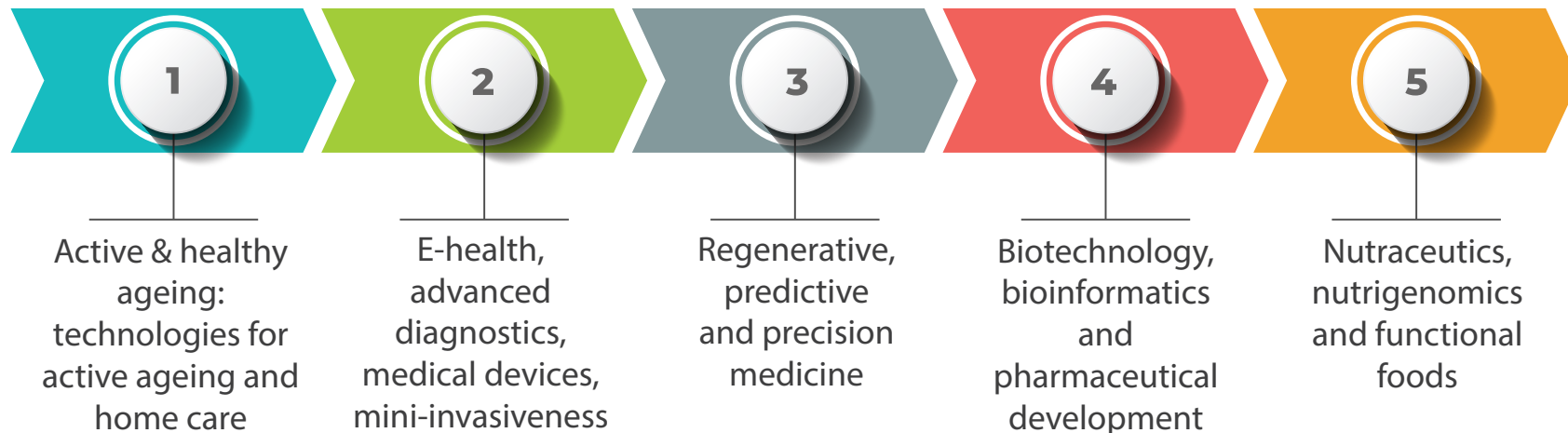
Italian biotechnology company based in Naples founded in 2004. It develops products and processes that constitute enabling technologies applied in Cosmetics and Nutraceuticals, exploiting the potential of living organisms (bacteria, yeasts, plants, animal cells).

Sofnnova-Telethon Fund: Venture Capital to support Life Sciences

A fund dedicated to biotech investments in Italy in 'early-stage' projects, for subsequent accompaniment to investment rounds, with a prevailing focus on rare and genetic diseases (around 7,000 - 95% without a cure - impacting 350 million people worldwide, 50% of which are children who do not reach the age of five).

The priority of investment in the Life Sciences is also reflected in the national lines of action, with the definition by the Ministry of Health of a **Development and Cohesion Plan**, to which 200 million euros are allocated (75% of the available funds go to the southern regions).

The Plan is based on 5 trajectories considered as priorities for the sector:



Horizon Europe: European Framework Programme for Research and Innovation 2021-2027.

In continuity with Horizon 2020, it will support excellence science, with the aim of attracting the best talent to Europe, providing adequate support for researchers at an early stage of their careers and supporting the creation and dissemination of high-quality knowledge, methodologies, skills, technologies and solutions to address global societal, environmental and economic challenges.

Pillar I comprises the following components:

