

Pharmaceutical & Life Sciences Sector in **SLOVAKIA**



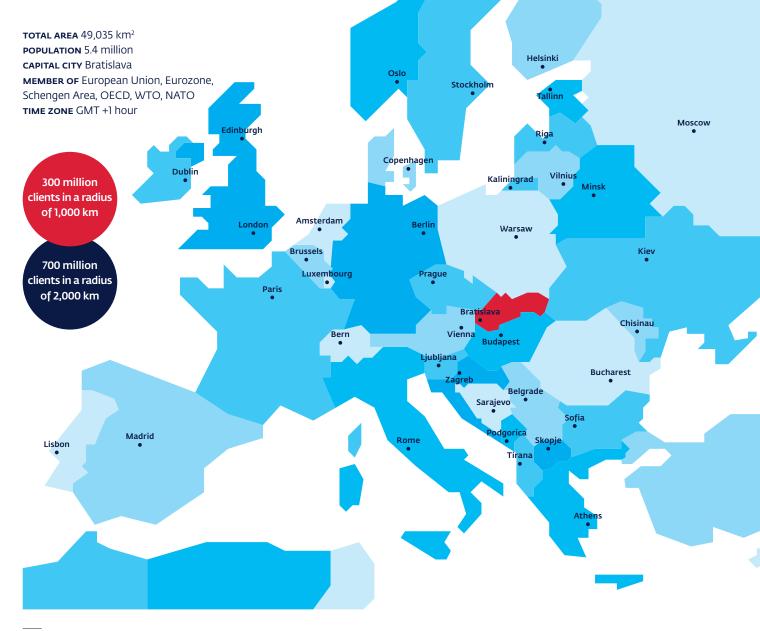






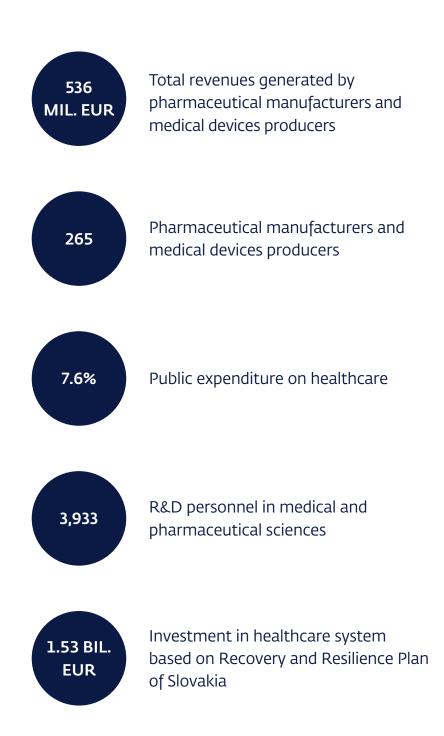
Pharmaceutical & Life Sciences Sector in Slovakia

The purpose of this publication is to present the opportunities that Slovakia has to offer to potential investors from the pharmaceutical & life sciences sector. It includes facts and figures for all major subcategories of this segment and serves as an introduction to why Slovakia should be a preferred location for your pharmaceutical and healthcare business.



Healthcare & Life Sciences in Slovakia — Key Facts

The Life Sciences sector in Slovakia is represented mainly by the production of pharmaceuticals, medical devices and cosmetics. Although this sector accounts for a relatively small share on the entire industrial production, it offers great potential for new investors.







Source: Finstat 2023 (data for 2022), Yearbook of Science and Technology 2022 (data for 2021), Recovery and Resilience Plan of Slovakia (2022)

Pharmaceutical Production in Slovakia

The large scale production of drugs is one of the youngest sectors in Slovak manufacturing. The history of the pharmaceutical industry in Slovakia dates back to the 1950s, when 3 large state– owned companies were established in Slovenská Ľupča, Šarišské Michaľany and Hlohovec.

Today, all of the Slovak pharmaceutical companies are owned by private investors, typically providing contract manufacturing for major global companies.

LIST OF MAJOR PHARMACEUTICAL PRODUCERS IN SLOVAKIA

| COMPANY NAME | LOCATION | CORE PRODUCTION | SALES REVENUE (MIL. EUR) | EMPLOYEES |
|-------------------------|--------------------|--|-----------------------------|-----------|
| Saneca Pharmaceuticals | Hlohovec | active pharmaceutical ingredients | 73.2 | 852 |
| HBM Pharma | Martin | sterile liquids and tablets | 37.8 | 370 |
| Unimed Pharma | Bratislava | eye drops and tablets | 16.2 | 139 |
| Innopharma | Dunajská Streda | chewable and effervescent tablets | 16.0 | 109 |
| Imuna Pharm | Šarišské Michaľany | immuno preparations, blood substitutes, allergen preparations | 12.5 | 206 |
| Pharmagal Bio | Nitra | veterinary imunological medicaments | 11.4 | 42 |
| GreenPharm | Košice | supplements | 11.4 | 41 |
| Biotika | Slovenská Ľupča | active pharmaceutical ingredients | 11.0 | 198 |
| AtB Pharma | Martin | active pharmaceutical ingredients | 7.1 | 77 |
| Generica | Piešťany | vitamins, minerals, supplements | 6.8 | 50 |
| Herb-Pharma Corporation | Veľké Ludince | supplements, cosmetic products | 6.1 | 37 |
| Farmácia Martin | Martin | pharmaceutical preparations | 4.4 | 54 |
| Galvex | Banská Bystrica | tablets, suppositories, solutions, medical devices, topical preparations | | |
| Biomin | Cífer | vitamins, minerals, supplements | 3.6 | 41 |
| Pharmagal | Nitra | veterinary imunological medicaments | 3.3 | 40 |

Top Players of the Slovak Pharmaceutical Industry



SANECA PHARMACEUTICALS

Slovakia's largest pharmaceutical company specializing in opiate development and the manufacture of APIs as well as liquid, semisolid and solid finished dosage forms.

HBM PHARMA

A partner for contract manufacturing of pharmaceutical products in the field of production of injectables in ampoules, production of bulk tablets, packaging of tablets and quality control.





ΒΙΟΤΙΚΑ

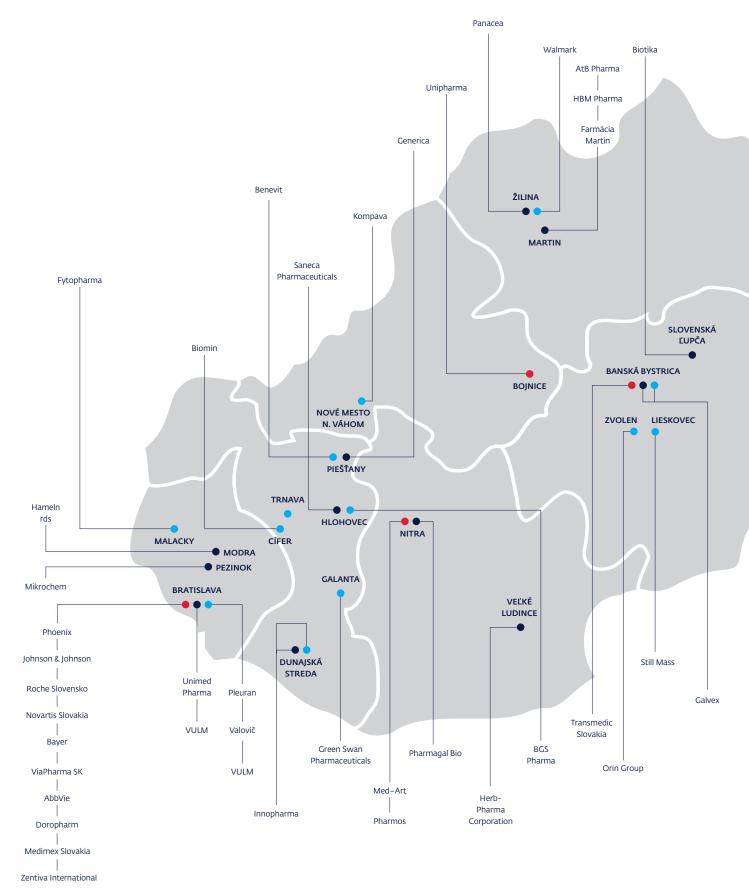
Biotika is well known as a reliable manufacturer of high-quality pharmaceutical preparations for human as well as veterinary application.

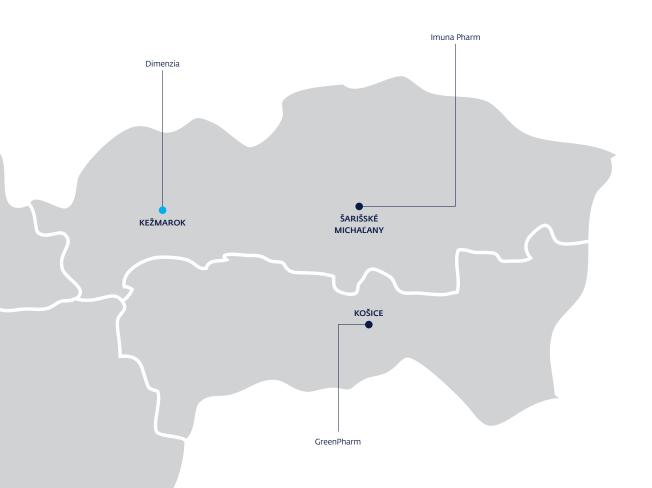
UNIMED PHARMA

Slovak pharmaceutical company focused on development and production of generic ophthalmologic products.



Map of Major Pharmaceutical Producers, Distributors & Producers of Vitamins, Minerals & Supplements in Slovakia







• pharmaceutical producers

distributors of drugs & healthcare products
producers of vitamins, minerals & supplements

MAJOR DISTRIBUTORS OF DRUGS & HEALTHCARE PRODUCTS IN SLOVAKIA

| COMPANY NAME | LOCATION | SALES REVENUE (MIL. EUR) | EMPLOYEES |
|----------------------------------|------------|-----------------------------|-----------|
| Phoenix Zdravotnícke Zásobovanie | Bratislava | 801.5 | 486 |
| Unipharma | Bojnice | 578.9 | 668 |
| Med-Art | Nitra | 456.8 | 461 |
| Johnson & Johnson | Bratislava | 147.2 | 84 |
| ViaPharma SK | Bratislava | 133.6 | 70 |
| Novartis Slovakia | Bratislava | 114.6 | 138 |
| Bayer | Bratislava | 93.9 | 81 |
| Roche Slovensko | Bratislava | 81.4 | 106 |
| AbbVie | Bratislava | 58.5 | 65 |
| Doropharm | Bratislava | 57.0 | 27 |
| Medimex SLOVAKIA | Bratislava | 55.4 | 13 |
| Zentiva International | Bratislava | 54.7 | 4 |

SLOVAK PRODUCERS OF VITAMINS, MINERALS & SUPPLEMENTS

| COMPANY NAME | LOCATION | CORE PRODUCTION | SALES REVENUE (MIL. EUR) | EMPLOYEES |
|--------------|-------------------------|--|-----------------------------|-----------|
| Innopharma | Dunajská Streda | vitamins, minerals supplements | 16.0 | 109 |
| Pleuran | Bratislava | immunity care (Imunoglukan), vitamins | 12.5 | 90 |
| Generica | Piešťany | vitamins, minerals supplements | 6.8 | 50 |
| VULM | Bratislava | food supplements, ointments, creams, drops, solutions | 4.3 | 52 |
| GALVEX | Banská Bystrica | minerals, food supplements, creams | 4.0 | 50 |
| Biomin | Cífer | minerals & calcium produced from egg shells | 3.6 | 41 |
| Orin Group | Zvolen | supplements (and medical devices) | 3.5 | 15 |
| Kompava | Nové Mesto nad Váhom | supplements | 2.8 | 34 |
| Fytopharma | Malacky | natural herb drops, teas, cosmetics | 2.8 | 32 |
| Dimenzia | Kežmarok | production and development of food 1.7 | | 13 |
| Still Mass | Lieskovec | supplements | supplements 1.5 | |
| Benevit | Piešťany | vitamins, minerals, supplements | 0.8 | 3 |

Production of Medical Devices

The production of medical devices has a long history in Slovakia, particularly in the area of orthopedic and stomatological equipment. Before 1989, companies such as Chirana or Protetika had a strong position in the Czechoslovak market. In the recent years, Slovakia has become an increasingly attractive investment destination for companies producing single use medical equipment. Most of the medical equipment produced in Slovakia is designated for foreign markets, with the exception of Protetika'products. Medical devices and instruments are sold either directly by a production company, or by local distributors.

PRODUCERS OF MEDICAL DEVICES & DENTAL INSTRUMENTS

| COMPANY NAME | LOCATION | CORE PRODUCTION | SALES REVENUE (MIL. EUR) | EMPLOYEES |
|---------------------------|-----------------------|---|-----------------------------|-----------|
| Unomedical | Michalovce | single use medical equipment | 114.1 | 700 |
| Medline Assembly Slovakia | Partizánske | single use surgical equipment | 43.2 | 305 |
| Chirana T.Injecta | Stará Turá | single use injection devices | 30.0 | 41 |
| Biometrix | Šamorín | medical devices for intensive medicine,cardiology and surgery rooms | 18.7 | 152 |
| Protetika | Bratislava | orthopedic and prosthetic equipment | 18.7 | 209 |
| Injecta | Stará Turá | single use injection devices | 17.4 | 282 |
| Chirana Medical | Stará Turá | stomatological systems | 15.9 | 221 |
| Europin | Trenčianske Stankovce | needles and cannulas | 12.8 | 186 |
| Diplomat Dental | Piešťany | dental units, stools and lights | 11.6 | 144 |
| Ferno Slovakia | Bošáca | transport medical equipment | 11.0 | 62 |
| Seisa Europe | Bratislava | medical components and sub implants for cardiology, urology | 7.9 | 304 |
| Neoprot | Bratislava | orthopedic, prosthetic equipment | 7.2 | 71 |
| OrtoproPlus | Košice | orthopedic, prosthetic equipment | 6.6 | 96 |
| Podotech | Senec | orthopedic and prosthetic equipment | 5.3 | 61 |
| Panacea | Žilina | medical devices and first-aid kits | 4.9 | 44 |
| SKY MEDICAL | Šamorín | single use medical equipment | 4.1 | 86 |
| Stirilab | Ružomberok | diagnostic devices and laboratory equipment | 3.6 | 37 |

Notable Slovak Medical Devices & Dental Instruments Producers



PROTETIKA

Producer of a wide range of medical aids and orthopedic footwear owning 26 retails shops throughout Slovakia, Protetika represents more than 90 years of orthopedic tradition.

CHIRANA

Development & production of anaesthesia units, breathing units, patient monitoring systems for intensive care, built on tradition of fine mechanics in Stará Turá. Together with Chirana Medical, a.s. it belongs to Chirana Holding, which dates back to 1935 and is an important player in the development and manufacture of respirators and anesthetic devices.





NEOPROT

Product portfolio ranges from bandages to prosthesis and orthoses for limbs, body and head. All the products are manufactured using the latest unique digital technologies.

DIPLOMAT DENTAL

Over 60 years of experience in designing and manufacturing of dental solutions. The product portfolio includes high quality dental units, stools, and lights.





ORTOPROPLUS

Manufacture of orthopedic and prosthetic products. In addition to prosthesis and orthoses, the product portfolio includes also wheelchairs and orthopedic footwear.

Production of Cosmetics in Slovakia

With an increased penetration of both local and global brands of cosmetic products, Slovak consumers have gained access to a greater assortment of goods.

The influence of ascension into the European Union has fueled consumer desire for variety in terms of price, function, composition and appeal. New brands and products that put an emphasis on innovation and quality are well accepted in the Slovak cosmetics market.

SALES REVENUE LOCATION CORE PRODUCTION **EMPLOYEES COMPANY NAME** (MIL. EUR) Haleon Levice (GSK 546 Levice personal care cosmetic production 186.8 Consumer Healthcare) pharmaceutical products, hand & foot Saneca Pharmaceuticals Hlohovec 73.2 852 creams, body lotions, toothpaste Farmol Levice personal care cosmetic production 24 157 Smižany 70 Herba Drug cosmetics, detergents 4.9 cosmetics, nutrition supplements, Calendula Nová Ľubovňa 3.0 34 essential oils Vitaprodukt Poprad teeth whitening products 1.7 7 Leon Global Pezinok 6 cosmetics, detergents 1.3 Dulcia Natural Bratislava natural cosmetics N/A 1.1

MAJOR COSMETICS PRODUCERS IN SLOVAKIA

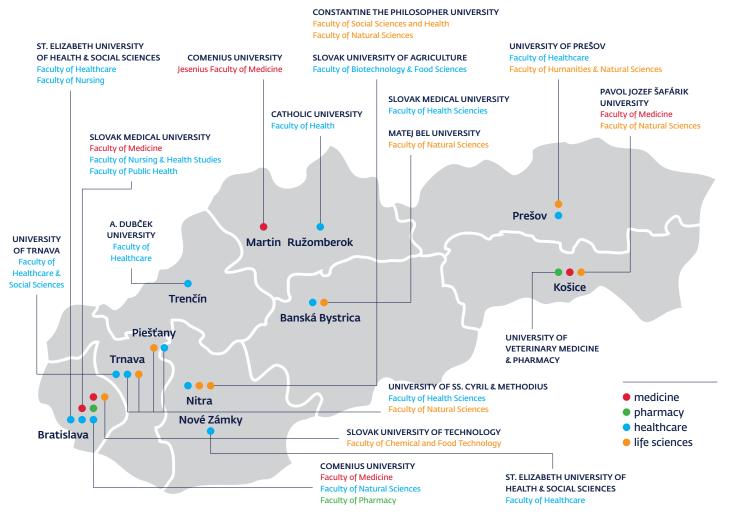


6,072 yearly graduates

27,278 enrolled students in related study fields

Labour Force & Education in Life Sciences

Companies active in Healthcare & Lifesciences are highly dependent on a skilled workforce. Slovak labour force with a medical and pharmaceutical background represents a combination of cost-effectivness and high education levels and thus ensures competitiveness and high added value.



Source: Slovak Centre for Scientific and Technical Information, 2023

Average Salaries in the Pharmaceutical Industry

Salaries in the Pharmaceutical industry do not differ in a significant way from region to region. What counts more is the experience and local competition of the employees with a pharmaceutical background.



| | MARKET MEDIAN — Gross Salary Levels (EUR/month) | | | | | | MIN. | |
|---------------------------|---|-------------------|-------|------------------|-------|----------|----------------------|--|
| POSITION WESTERN | | SLOVAKIA CENTRALS | | SLOVAKIA EASTERN | | SLOVAKIA | REQUIRED ACADEMIC | |
| | min | max | min | max | min | max | DEGREE | |
| Pharmaceutical Technician | 1,200 | 1,400 | 1,200 | 1,300 | 1,100 | 1,300 | secondary school | |
| Responsible Pharmacist | 1,700 | 1,900 | 1,700 | 1,800 | 1,700 | 1,800 | university | |
| Pharmacist | 1,400 | 1,600 | 1,400 | 1,600 | 1,400 | 1,600 | university | |
| Quality Control Analyst | 1,300 | 1,500 | 1,200 | 1,400 | 1,200 | 1,400 | secondary school | |
| Product Manager | 3,000 | 3,500 | 3,000 | 3,500 | 3,000 | 3,400 | university | |

| | MARKET SALARY LEADERS HIGH-END — Gross Salary Levels (EUR/month) | | | | | | MIN. | |
|---------------------------|--|-------------------|-------|----------|------------------|-------|------------------|--|
| POSITION | | RN SLOVAKIA CENTI | | SLOVAKIA | EASTERN SLOVAKIA | | ACADEMIC | |
| | min | max | min | max | min | max | DEGREE | |
| Pharmaceutical Technician | 1,300 | 1,400 | 1,300 | 1,400 | 1,200 | 1,400 | secondary school | |
| Responsible Pharmacist | 1,900 | 2,500 | 2,000 | 2,500 | 2,200 | 2,500 | university | |
| Pharmacist | 1,500 | 1,850 | 1,700 | 1,900 | 1,700 | 1,900 | university | |
| Quality Control Analyst | 1,400 | 1,800 | 1,400 | 1,700 | 1,400 | 1,600 | secondary school | |
| Product Manager | 3,200 | 3,800 | 3,200 | 3,600 | 3,200 | 3,600 | university | |

Source: Balanced HR, 2023

Healthcare & Pharmaceutical Innovations



TRISOMY TEST

Team of Slovak researchers invented a non-invasive Down syndrom diagnosis for pregnant women.

MEDICAL 3D PRINTING

Biomedical Engineering promotes 3D printing in medicine. The implant was already used on a patient after serious skull damage.





MULTIPLEXDX

Biotech innovative company performing personalized molecular diagnostics. MultiplexDX's high quality solutions refer to the most precise sequencing analysis, the simplest and gel-free sequencing protocol, the simplest FISH protocol, the most stable and specific FISH probes, the most accurate cancer profiling and biomarker quantification. Furthermore, MultiplexDX developed LAMP-testing solution (COVID-19 diagnostic test) which achieves an accurancy approaching PCR test.





specific proteins.



HIGHCHEM

tests for cancer diagnostics. Portfolio of products and solutions consists of

glycocode deciphering done by analysis of glycan changes on

HighChem develops and offers software for the interpretation, management and processing of mass spectral and chromatographic data in the area of small molecules. In addition to desktop solutions, HighChem develops library and cloud systems, and builds large data collections of fragmentation knowledge, experimental spectra and organism specific biochemical data used in modern pharmaceutical applications.



MENTEGRAM

Mentegram, focused on mental health solutions, provides a cloud-based assessment and patient engagement platform that is accessed through a web dashboard and mobile apps by healthcare professionals and patients. Clinicians are able to conduct digital patient screenings, automatic scoring and reporting, track treatment plans digitally and seamlessly process information for reimbursement claims in real time.



Laboratories and Providers of Laboratory Diagnostics

Slovak laboratories are accredited according to the international standards for medical laboratories in the following fields — clinical biochemistry, hematology, immunology, medical genetics and clinical microbiology. Implementation of the latest technology and know-how, information technologies and full automation into diagnostic processes, have increased their competitiveness to the level of other global players in the same field.

TOP PROVIDERS OF LABORATORY DIAGNOSTICS

| COMPANY NAME | LOCATION | SALES REVENUE (MIL. EUR) | MARKET SHARE |
|---|------------|--------------------------|--------------|
| Unilabs Slovensko | Martin | 97.2 | 30.5% |
| Medirex | Pezinok | 85.9 | 27.0% |
| Klinická biochémia | Žilina | 28.6 | 9.1% |
| Synlab Slovakia | Bratislava | 18.3 | 5.0% |
| Cytopathos | Bratislava | 11.9 | 3.8% |
| Martinské bioptické centrum | Martin | 9.1 | 2.8% |
| Medicyt | Pezinok | 8.4 | 2.6% |
| LABMED | Košice | 7.9 | 2.5% |
| Analyticko-diagnostické laboratórium a ambulancie | Prešov | 6.6 | 2.2% |
| AnalytX | Bratislava | 5.4 | 1.6% |

Slovakia's R&D Potential in the Healthcare & Pharmaceutical Industry

Science parks and research centers play an important role in the national innovation system by stimulating the cooperation between the academic and business environments and enabling a swift knowledge transfer.



UNIVERSITY SCIENCE PARK FOR BIOMEDICINE • cooperation between the Slovak Academy of Sciences and the universities • capacity of 500 researchers



CENTER FOR BIOMEDICINE OF THE CITY OF MARTIN • research facility of the Jessenius Faculty of Medicine • focus on neurosciences, oncology, respirology & molecular medicine



UNIVERSITY MEDICAL SCIENCE PARK IN KOŠICE

common project of the local universities
integration of biomedical research throughout Eastern Slovakia



COMENIUS UNIVERSITY IN BRATISLAVA SCIENCE PARK Focus on biomedicine, biotechnology, enviro-medical and societal challenges of the 21st century in matters of bioethics, law and socio-economic rights.



UNIVERSITY SCIENCE PARK TECHNICOM IN KOŠICE Cooperation of the universities in Prešov and Košice

focused on application of innovations and cooperation of the academic and business environments.



UNIVERSITY SCIENCE PARK CAMBO IN TRNAVA Research park of the Slovak Technical University focused on the field of material research based on ion & plasma technologies.



RESEARCH CENTER AGROBIOTECH IN NITRA Regional competence center for agrobiology, agroecology, biotechnologies and bioenergetics.



RIS3 — National R&D Specialization Strategy

Biomedicine & biotechnology are one of the three priorities of the R&D strategy of the Slovak Republic.

Biomedicine and biotechnology focus on new diagnostic and therapeutic approaches for cancer, heart disease, blood vessels and brain, endocrine and metabolic disorders, infectious diseases and allergies, pharmacological and industrial biotechnologies.

Almost 2,000 researchers work in the segment and they publish more than one fourth of all Slovak publications in international scientific journals. The results are used in the field of the diagnostic, prevention and therapy of diseases in cooperation with three medical faculties.

Slovak Academy of Sciences

Slovak Academy of Sciences (SAS) is a public research institution established in 1942, which undertakes autonomous non-university scientific research in Slovakia which is primarily funded from public finances.

The research is highly systematic and concentrated which allows it to be connected to global trends in the development of human knowledge. The perspectives gained from research undertaken at the SAS are based on evidence and are qualitatively comparable to research undertaken abroad.

The SAS consists of 69 organizations operating in 2 major research cities— Bratislava and Košice. The Academy publishes 73 scientific and professional journals. Currently it employs a total of 2,147 scientists, of which 233 are D.Sc. and 1,914 C.Sc. and PhD. In 2021, SAS organizations had a total of 509 PhD students.

SAS organizations are actively involved in higher education. As external educational institutions, SAS organizations participate in the implementation of PhD study programs at 11 universities. The most important partners of SAS institutes in doctoral studies are the Comenius University and the Slovak Technical University, which are ranked best in international rankings. In addition, the employees of the SAS acted as supervisors for 66 PhD students and 785 students of master and bachelor degree at universities.

SAS INSTITUTES UNDER THE SECTION LIFE SCIENCE, CHEMICAL, MEDICAL & ENVIRONMENTAL SCIENCES

MEDICAL SCIENCES Biomedical Research Center SAS

- Cancer Research Institute
- Institute for Clinical and Translational Research
- Institute of Experimental Endrocrinology
- Institute of Neurobiology
- Institute of Virology

Centre of Experimental Medicine SAS Institute of Neuroimmunology

BIOLOGICAL AND CHEMICAL SCIENCES Centre of Biosciences SAS

- Institute of Chemistry
- Institute of Inorganic Chemistry
- Institute of Molecular Biology
- Institute of Zoology
- Polymer Institute

AGRICULTURAL AND VETERINARY SCIENCES

- Institute of Forest Ecology
- Institute of Landscape Ecology
- Institute of Parasitology
- Plant Science and Biodiversity Center SAS

Investment Incentives

MAXIMUM REGIONAL INVESTMENT AID INTENSITY

The primary goal of the investment incentives is to motivate investors to place their new projects in regions with higher unemployment and to attract projects with higher added value.

Districts in Bratislava region are excluded from the investment aid scheme

additional incentives

additional incentives for

for medium-sized enterprises

small and micro-sized enterprises

ELIGIBLE PROJECTS

The Act on Investment Incentives divides the projects, which may be supported, into four categories:

- industrial production
- technology centers
- combined projects of industrial production and technology center
- shared services centers

ELIGIBLE COSTS

- Costs of land acquisition
- Costs of buildings acquisition & construction
- Costs of new technological equipment and machinery acquisition
- Intangible long-term assets licences, patents, etc.
- Rent of new land/building or
- Total wage costs of all new employees calculated over a period of 2 years

FORMS OF INVESTMENT INCENTIVES • Corporate income tax relief

40%

50%

60%

+10%

+20%

- Cash grant
- Contributions for the newly created jobs
- Rent/Sale of real estate for a discounted
- price

*An amendment to the Governmental Regulation no. 195/2018 Coll. is currently in the legislation process. Map of maximum intensities above already reflects these changes (maximum aid intensity in the Western Slovakia increased from 30% to 40%). Please contact us at invest@sario.sk for more information (including minimum conditions). Positive regional contribution of a new investment projects shall be concluded based on these categories — investment location, number of jobs created, average gross monthly salary of new employees, expected added value and possible qualification of a project respecting definition of a priority area



AIM INVESTMENT AWARDS UAE 2022

CEE & TURKEY REGION Best Investment Promotion Agency in 2022



SARIO Profile

Slovak Investment and Trade Development Agency (SARIO) is a governmental investment and trade promotion agency of the Slovak Republic. The agency was established in 2001 and it operates under the Ministry of Economy of the Slovak Republic.

01 INVESTMENT SERVICES

FOR POTENTIAL INVESTORS

- investment environment overview
- assistance with investment projects implementation
- starting a business consultancy
- sector and regional analyses
- investment incentives consultancy
- site location & suitable real estate consultancy

FOR ESTABLISHED INVESTORS

- identification of local suppliers, service providers
- assistance with expansion preparation and execution
- assistance with Industry 4.0 solutions and R&D implementation

02 FOREIGN TRADE SERVICES

IF YOU ARE LOOKING FOR

- Slovak supplier or subcontractor
- information about Slovak export/trade environment
- sourcing opportunities
- forming a joint venture, production cooperation or other forms of partnership with a Slovak partner

SERVICES FOR EXPORTERS

- information on foreign territories
- customized search for foreign partners
- online database of business opportunities
- export Training Centre
- subcontracting assistance

03 INNOVATION SOURCING

- matching local tech companies with the operations of large companies that plan to implement innovative solutions to streamline and optimize their processes
- focused mostly on Industry 4.0 solutions such as digitalization, intelligent automation, and robotics as well as advanced and complex IT solutions for various industries
- based on a database of more than 300 local tech companies which is constantly updated and expanded

04 SLOVAK SPACE OFFICE

FOR SLOVAK ENTITIES

- tailor-made sector entry consultancy
- startup creation through hackathons and incubation programs
- cooperation opportunities through matchmaking events
- internationalization of the Slovak space companies and research institutions

FOR FOREIGN PARTNERS

- customized search for local partners
- assistance with establishing branch in Slovakia
- cooperation on space industry events



CONTENT ADVISOR

SARIO IS YOUR ONE STOP SHOP FOR INVESTMENT & TRADE IN SLOVAKIA. TALK TO US TODAY!

SARIO | Slovak Investment and Trade Development Agency Mlynské nivy 44/b | 821 09 Bratislava | Slovakia

Q GPS +48°08'39.8", +17°08'24.2"

invest@sario.sk | trade@sario.sk | www.sario.sk