

VIENNA LIFE SCIENCE REPORT 2021/22



Growing a lifesaving business pays off

For several decades now, the life sciences have been a significant factor in the Austrian economy and employ a growing number of people. The coronavirus pandemic is a reminder of their tremendous importance for saving lives. We are grateful that researchers and entrepreneurs have succeeded in delivering urgently needed knowledge and products to cope with the crisis. Our emergency funds encouraged and considerably expedited the R&D, manufacturing, and logistics. Vienna plays a key role in Austria's life science community and accounts for about half of the sector. The figures discussed in this report were taken from a national survey. Results will inform future activities to advance the framework surrounding the community. The program LISA – Life Science Austria, managed by Austria Wirtschaftsservice, will continue to be a strategic centerpiece of our support ecosystem. Its strong ties to cluster platforms such as LISAVienna ensure that start-ups and scale-ups receive rapid, customized information on all the opportunities they can access and advice on how to grow their business in the region. Collaborating with excellent partners in academia, for example, boosts innovation in medicine and digitalization, and helps us to address climate change. In Austria, we continue to invest in the sector and thus contribute to securing the basis of life for future generations.



Margarete Schramböck
Austrian Federal Minister for Digital and Economic Affairs

Vienna: Mobilizing the power of research

Vienna is proud to be the home of a successful and thriving life science community. The new Life Science Report highlights the key facts and figures of this prospering sector: 600 companies, research institutions and other affiliated organizations in Vienna employed almost 41,000 people and generated more than 13.3 billion euros in revenues in 2020. The global Corona pandemic has proven that investing in laboratories and high-tech infrastructure at academic institutions, hospitals and life science companies as well as in the people who run them, is of utmost strategic importance. Vienna's excellent COVID-19 testing and vaccination strategy has become an international role model for containing the pandemic. The high-speed roll-out and easy access to tests and vaccines have contributed to saving many lives and ensured a safe environment in our big city. Vienna is therefore committed to continue investing in the life sciences in the future. We have planned significant upgrades, including the construction of new facilities at the Vienna BioCenter. This will ensure that we remain at the forefront of progress in the life science sector and allow us to quickly apply new knowledge and technology from around the globe. Applying innovative solutions for the benefit of society remains the key focus. Let's keep going. Together, we will continue creating solutions for the challenges ahead and make sure we put those solutions into practice.



Peter Hanke
Executive City Councillor of Finance, Business, Digital Innovation and International Affairs

Boosting innovation

Austria Wirtschaftsservice is the promotional bank of the Austrian federal government and provides fertile ground for the national economy. Soft loans, grants and guarantees support companies in implementing their innovative business ideas. Our thematic program LISA – Life Science Austria demonstrates that this sector ranks very high on the agenda in Austria. We have been boosting innovation and growth in life sciences related fields for quite a long time, and the current pandemic has given the community the opportunity to show what it is capable of. Vienna is Austria's life science capital. The biotechnology, medical device and digital health companies in our portfolio are outstanding; many of them have succeeded in attracting significant amounts of private equity and signed internationally recognized agreements with global players. According to this report, Vienna's life science start-ups and scale-ups publicly announced that they had signed investment agreements worth more than 900 million euros within the last three years. In addition, M&A and major orders totaling a volume of over 2.3 billion euros have been reported in the same period. These figures are an all-time high for Vienna. Our start-up support certainly paves the way for success stories such as these. We encourage businesses to turn major challenges into business opportunities by applying the latest in scientific findings to creating solutions to pressing issues, including COVID-19 and climate change.



Edeltraud Stifinger and Bernhard Sagmeister
Managing Directors
Austria Wirtschaftsservice GmbH

Science for life

The world's largest axolotl colony lives in the Vienna BioCenter. For the people of Vienna, this fact often remains hidden in everyday life. The collection of this Mexican species of salamander is a big plus for Vienna's attractiveness as a life science hub. Here, top scientists are researching the molecular basis of limb and spinal cord regeneration with the help of the axolotl's special abilities. Almost 50 life science companies settled in Vienna between 2018 and 2020. Global players such as Boehringer Ingelheim and Takeda saw growth, and start-ups secured significant private equity investments in recent years. Another feature of outstanding life science projects in Vienna is close collaboration with universities. As the business agency for Vienna, we ensure that companies find the right partners, funding, and a space for growth in our city. One of our biggest projects is the long-standing support of the Vienna BioCenter. The Vienna BioCenter Startup Labs completes our range of services for the life science sector and we want to expand it further. After all, what distinguishes Vienna as a place for business is rapid responses and serving the interests of our companies. We are confident that many of the scientists working in the Startup Labs will make the leap into business and continue to make Vienna more attractive to international partners as a place for life sciences.



Gerhard Hirczi
Managing Director
Vienna Business Agency

Dear Readers,

It is our pleasure to present to you the fifth report on Vienna's thriving life science community. This publication provides key facts and new figures demonstrating growth and progress into new scientific areas and market niches. Vienna's central life science platform LISAvienna, which is jointly operated by Austria Wirtschaftsservice and the Vienna Business Agency, has been accompanying the regional life science community for almost twenty years now. We contribute to its advancement on behalf of the Austrian Federal Ministry for Digital and Economic Affairs and the City of Vienna. The data in this publication prove what we have actually witnessed during the last few years. It is based on a survey for the Austrian Federal Ministry for Digital and Economic Affairs. Our long-standing partner BIOCUM carried out an extra in-depth analysis of the Vienna sample and summarized the findings. Enjoy deepening your understanding of the city's life science community and reach out if you have any questions.

We thank the companies, research institutions and other organizations that together constitute the city's life science sector for participating in the survey, and appreciate their dedication to innovate and their resilience in tough times. This is crucial when contributing to solving real-world problems, especially during a pandemic. We were deeply impressed by both the speed and high quality of generating knowledge and developing, manufacturing, and rolling out of products and services. In Vienna, the emphasis has been on, for example, personal protective equipment, digital health solutions, research reagents, diagnostics, and medicines. The life sciences are also in a position to deliver significant contributions beyond the biopharmaceutical and the medical device sectors. Other pressing issues like the environmental crisis and climate change urgently require input from the biotech perspective as well. Fortunately, pipelines are brimming with highly promising new approaches relevant to many different industries such as the chemical industry, paper and packaging, food and feed, as well as textiles and fashion.

Are you planning to start up in the European Union or considering locating a biotech, medtech or digital health business unit in Vienna? Please reach out to us and our team to discuss your plans. Doing business in Vienna pays off! To stay up to date on support opportunities, events, and life science news from Vienna, please register for our electronic newsletter, and follow us on LinkedIn and Twitter.



Johannes Sarx (aws) and Philipp Hainzl, (Vienna Business Agency)
LISAvienna Executive Board



Executive summary

Vienna is Austria's most important life science location and hosts about half of the sector. Almost 600 companies, research institutes and other relevant organizations employing 41,000 people are located in the city.

The biotechnology, pharmaceutical, medical device and digital health companies in Vienna generated a total of 13.3 billion euros revenue in 2020. This is one-third more than six years previously and about three times the revenue of Vienna's pre-Covid tourism sector.

Vienna is home to tremendous knowledge and talent. Over 42,000 students and more than 8,000 publications in peer-reviewed journals in 2020 demonstrate the sector's scientific power. This refers both to internationally recognized academic research and educating the next generation of highly gifted people. Most of the top 20 global market leaders in the sector maintain a strategic presence in the region. Many international pharmaceutical companies even conduct clinical research and some also perform research, product development, and production here.

Vienna's life science industry has enormous potential for innovation. Up to 40% of life science businesses carry out research, development, or manufacturing here. These companies invested 850 million euros in R&D in 2020.

Vienna's biotechnology and pharma sector is composed of 260 companies. Cancer, respiratory diseases, and infectious diseases such as COVID-19 are the three main focus areas for the regional dedicated medical biotech companies. Most of these companies are striving to develop new drugs, drug components, or new solutions to advance and improve drug development. Additionally, companies developing research reagents are appearing while business ideas involving the bioeconomy gain in importance.

Vienna's medical device sector comprises 251 companies and it is particularly strong in terms of sales and distribution. However, more and more entrepreneurs are finding opportunities linked to IT, material science or biotechnology, for example. These address new market niches in Vienna, especially for software as a medical device. Companies developing single-use devices, active implantable devices, and in-vitro diagnostics are also on the rise.

The life science sector in Vienna is growing. Almost 50 new life science companies established their business in Vienna from 2018 to 2020, ranging from innovative start-ups to service providers, and sales and supply companies. In addition, some regional facilities of global players have expanded significantly, and several SMEs reported growth, especially those whose products and services contribute to coping with the pandemic.

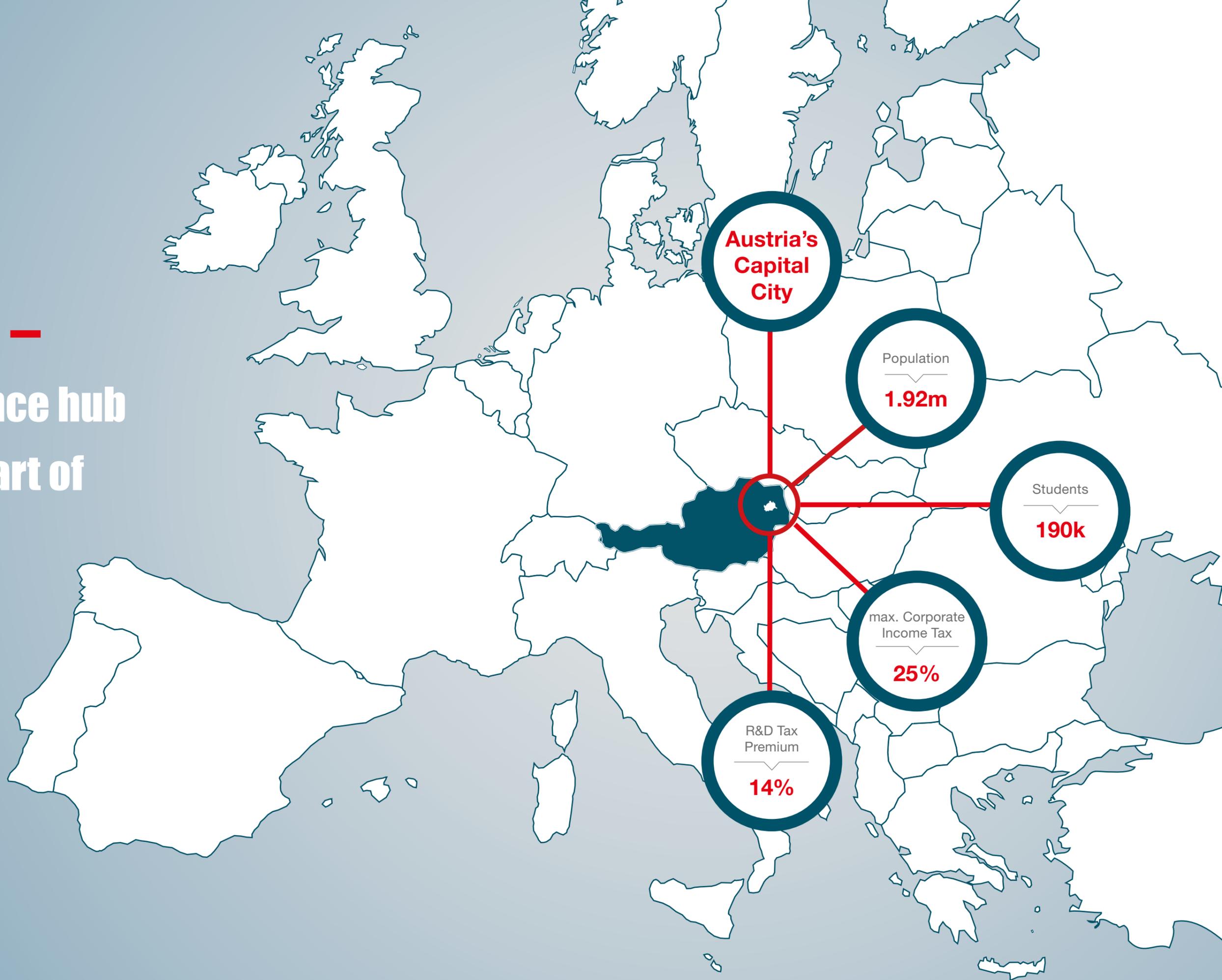
More than 100 investments, licensing and M&A agreements and major orders are documented in this report for 2018 to 2020. Vienna's life science start-ups and scale-ups announced investment agreements worth more than 900 million euros and licensing deals, M&A and major orders totaling a volume of over 2.3 billion euros. Most of the high-volume deals center on drug development. These figures are at an all-time high for Vienna even though many agreements are not included in these sums as no financial details were disclosed.



Content

Vienna - Life science hub in the heart of Europe	10
Statistics	12-29
Key figures at a glance	13
Life science industry in Vienna: Austria's economic powerhouse	14
Biotech/pharma companies in Vienna	16
Medical device companies in Vienna	22
Spotlight on academic research and education	26
Other organizations	29
Innovation hub Vienna	30-44
Key ingredients for success	30
Vienna offers 360-degree support for start-ups and scale-ups	32
LISAvienna - Connecting life sciences	33
Life science hotspots in the city	34
Big players appreciate Vienna	36
Find experienced clinical research partners	38
Contribution to handling COVID-19	40
Grow your bioeconomy network at the heart of Europe	42
Digital health on the rise	43
Methodology	45-54
Survey and definitions	46
References	52
Annex	55-83
New life science companies in Vienna	56
Biotech/pharma companies in Vienna	58
Medical device companies in Vienna	63
Research and education & other organizations in Vienna	68
Equity investments and other financing deals	70
Licensing, M&A activities and additional agreements	72
Focus of dedicated medical device companies in Vienna	76
Focus of dedicated medical biotech companies in Vienna	80
Focus of dedicated non-medical biotech companies in Vienna	83

Vienna – Life science hub in the heart of Europe



Life sciences in Vienna

Vienna's life science community consists of almost 600 companies, research institutes and other related organizations that together employ 41,000 people and generate total revenues of 13.3 billion euros. Over 42,000 students and more than 8,000 internationally recognized scientific publications in 2020 characterize the sector's significance.

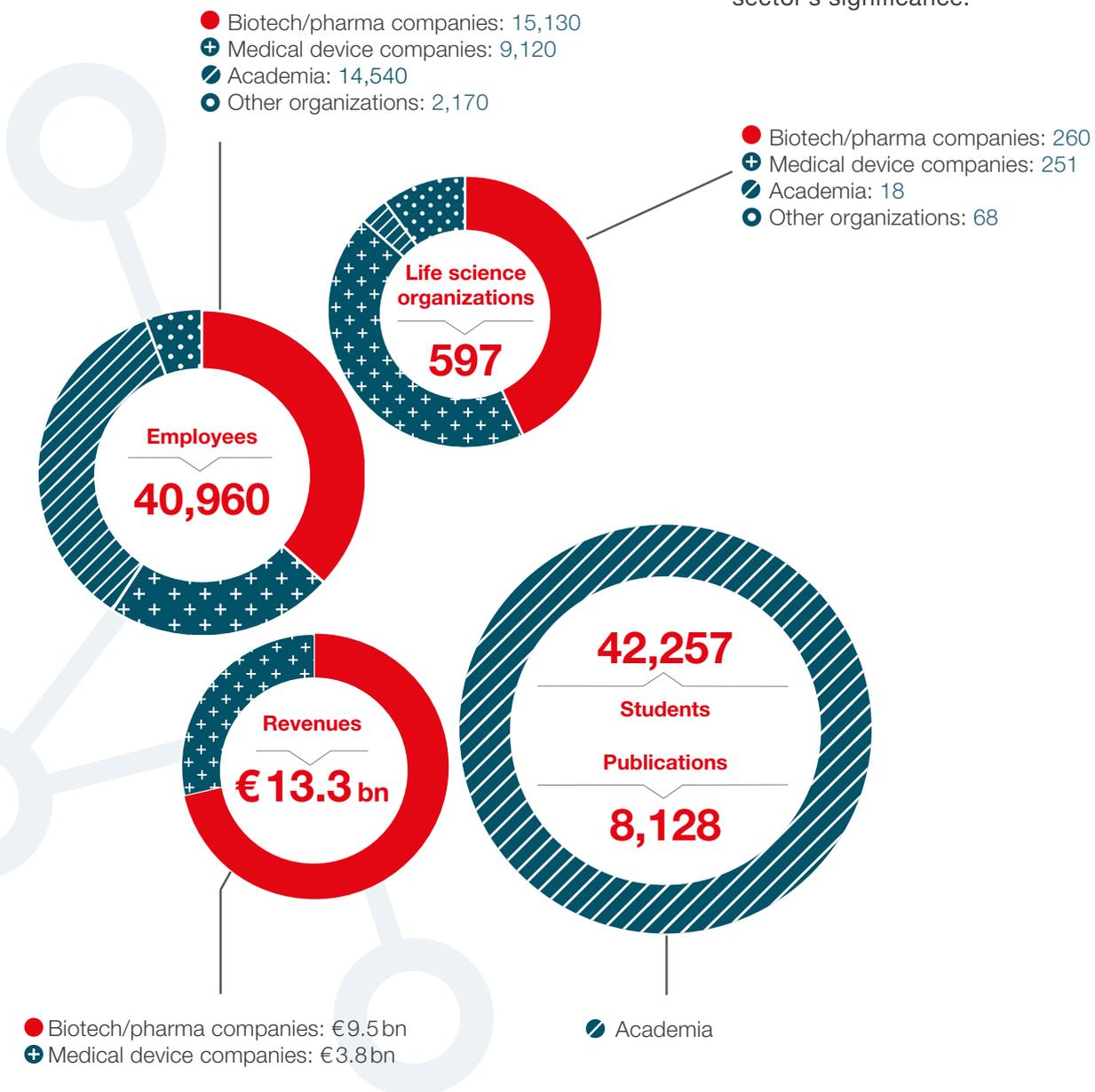


Fig 1: Key figures for Vienna's life science community

Key figures at a glance

As Austria's life science capital, Vienna offers ideal support for basic research, state-of-the-art medicine, global players and a dynamic start-up ecosystem. The city hosts a rapidly growing life science community. As shown in Fig. 2, the total number of organizations increased by 24% (2014: 480 organizations), the number of employees by 15% (2014: 35,730 employees) and the total revenue by 34% (2014: 9.9 billion euros) within only six years.

Biotech and pharmaceutical industry

In 2020, the 260 biotech and pharmaceutical companies generated a turnover of 9.5 billion euros, which is an increase of 8% compared to the situation three years ago (2017: 8.8 billion euros). The same trend can be seen when looking at the job market. There are 8% more people employed in the biotech/pharma industry than in 2017 (2017: 14,040 employees; 2020: 15,130 employees). The entire industry can be considered as young and innovative: 39% of all companies are less than ten years old and 53% are active in research, development or manufacturing. Many of Vienna's dedicated medical biotechnology start-ups and SMEs focus on infectious diseases, oncology and immunological disorders.

Medical device industry

A total of 251 medical device companies were operating in Vienna in 2020. Together, they generated revenues of 3.8 billion euros (+12%, 2017: 3.4 billion euros) and had 9,120 people on their payroll (+3%, 2017: 8,890 employees). Almost one third of the companies (32%) have been operative for less than ten years and a little more than one quarter have their

core business in research, development or manufacturing (26%). Developing new software solutions for the healthcare sector has become a key area. Further key fields are single-use devices, in-vitro diagnostics and active implantable devices.

Talent as the key to success

Vienna's traditional and internationally renowned research institutions are essential to the growth of novel and innovative life science businesses in the city. Five universities, two universities of applied sciences and eleven non-university research institutes employ 14,540 people in the life science sector. A total of 42,257 life science students are educated by the 18 Viennese research institutions (+22%, 2017: 34,743 students), which together published a total of 8,128 life science-related papers in peer-reviewed journals.

Other organizations enhance the sector

Other organizations, such as medical societies and funding agencies, represent an important pillar for the overall success of the life science sector. 2,170 employees in 68 organizations make a positive contribution to Vienna's future-oriented life science ecosystem.

Life sciences on the rise in Vienna

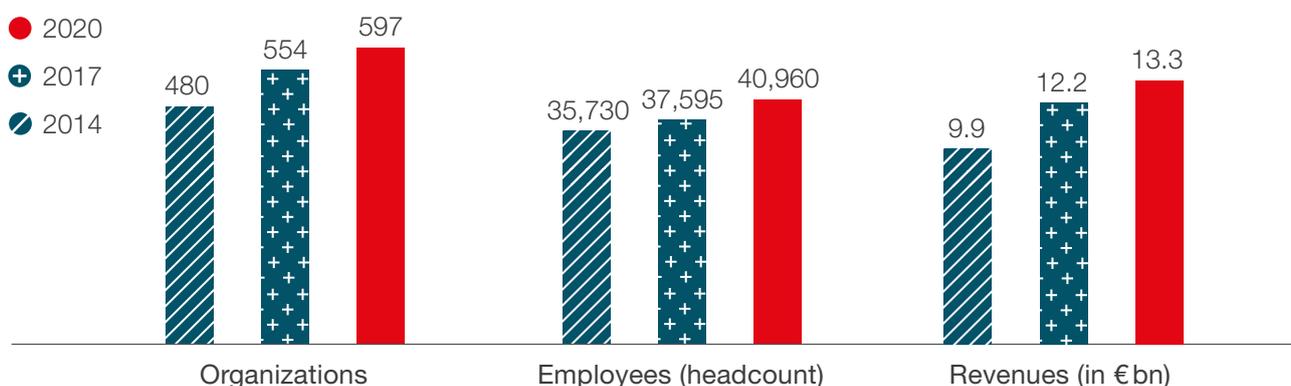


Fig 2: Key figures for Vienna's life science community for 2014, 2017 and 2020

Life science industry in Vienna: Austria's economic powerhouse

In 2020, there were a total of 511 companies with an equal distribution between biotech/pharma and medical devices. Compared to 2017, when the life science sector counted 481 companies, this is an increase of 6%. Altogether, 46 new life science companies were established in Vienna from 2018 to 2020. Investment agreements worth more than 900 million euros and licensing deals, M&A and major orders totalling more than 2.3 billion euros were made. Even though many agreements are not included as no financial details were disclosed, both figures are an all-time high for Vienna.

More than half of all Austrian life science companies (52%) are based in Vienna, demonstrating once again its reputation as an economic powerhouse. In 2020, all companies generated well over thirteen billion euros in turnover, which marks a significant increase of 9% compared to 2017. Viennese companies' turnover makes up 53% of the combined revenue of all Austrian life science companies. Biotech and pharma firms contributed the lion's share of this by achieving a turnover of 9.5 billion euros (71%). In 2020, Viennese life science companies employed a total of 24,250 people, which marks an increase of 6% (2017: 22,930 employees) and represents 40% of all Austrian industrial life science employees. Again, biotech and pharma firms accounted for the largest share of this figure (62%). The driving force behind the sector are

204 research, development and manufacturing companies. These had a combined workforce of 13,560 people and generated revenues of 6.9 billion euros in 2020. In addition, they spent 849.5 million euros on research and development, representing 59% of all research expenditure spent by life science companies in Austria overall. Comparing these figures with 2017, a significant increase can be seen: the number of companies increased by 15% (2017: 177 companies), the number of employees was up by 6% (2017: 12,800 people) and total revenues by 11% (2017: 6.2 billion euros). The majority of the companies active in research, development or manufacturing focus on biotechnology and pharma. More than two thirds (68%) belong to this group, employing 82% of the workforce and generating 82% of the turnover.

Total share of Vienna's life science industry in Austria's life science industry

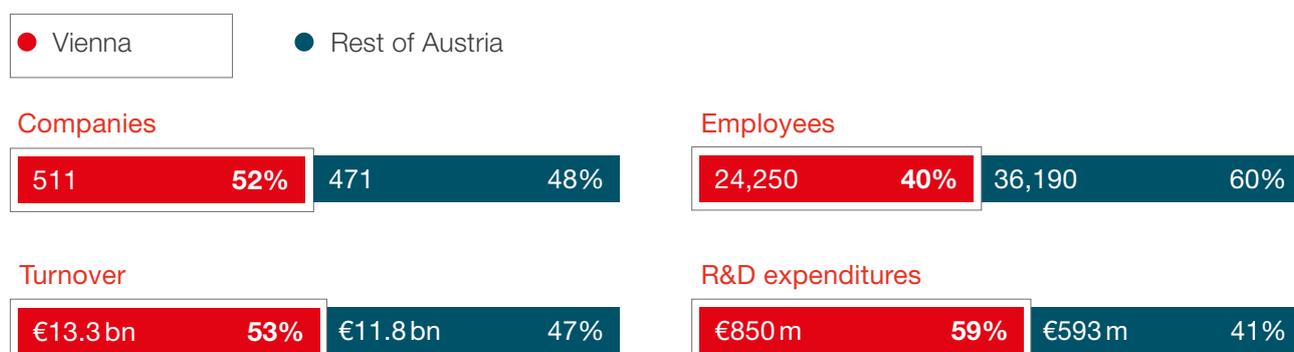


Figure 3: Total share of Vienna's life science industry in Austria's life science industry in terms of number of companies, employees, turnover and R&D expenditures (2020)

	Companies			Employees			Revenues in € m		
	2014	2017	2020	2014	2017	2020	2014	2017	2020
Life science companies in total	434	481	511	22,125	22,930	24,250	9,919	12,214	13,285
Biotech/pharma companies	216	239	260	13,950	14,040	15,130	6,748	8,774	9,487
Medical device companies	218	242	251	8,175	8,890	8,890	3,171	3,440	3,798
Research, development, manufacturing	133	177	204	10,335	12,800	13,560	3,030	6,215	6,875
Biotech/pharma companies	97	126	139	8,370	10,520	11,180	1,904	5,094	5,608
Medical device companies	36	51	65	1,965	2,280	3,380	1,126	1,121	1,267
Sales, suppliers, service providers	301	304	307	11,790	10,130	10,690	6,889	5,999	6,411
Biotech/pharma companies	119	113	121	5,580	3,520	3,950	4,844	3,680	3,879
Medical device companies	182	191	186	6,210	6,610	6,740	2,045	2,319	2,531

Table 1: Key figures for life science companies in Vienna for 2014, 2017 and 2020

A young and highly versatile sector

In respect to age, the diversity of the research, development and manufacturing companies in biotechnology and pharma is quite high. About half of these Viennese companies are more than ten years old. The largest group, 31.9%, is the youngest: 65 companies have not yet reached their fifth anniversary. The second largest group, on the other hand, is the oldest. Fifty-seven seasoned companies have been in business for more than 20 years (27.9%). Forty-one companies are between eleven and 20 years old or between six and nine years old (20.1%). The last three years were particularly good years for new research, development and manufacturing companies: 13 companies were founded in both 2018 and 2019. Nine newcomers opened their doors in 2020.

Sales, suppliers, service providers

The 307 companies active in sales, supplies and services employed 10,690 people and generated 6.4 billion euros in turnover (+7%, 2017: 6.0 billion euros). Compared to research, development or manufacturing companies, medical device companies make up the majority of sales companies, suppliers and service

providers. 186 companies (61%) belong to this sector, employing a total of 6,740 people (63%). However, turnover is higher for the biotech and pharma sector: sales, supply and service companies in this sector generated 61% of all revenues (3.9 billion euros).

Global players in Vienna

Austria, and its capital Vienna in particular, is of great interest to large enterprises. All of the world's top 20 biotech/pharma companies, ranked according to annual sales, are operative in Vienna. Sixteen of the medical device companies in the top twenty are also located in Vienna (see Tab. 8, p. 37).

Investments & deals: All-time high

Viennese life science companies attracted great attention from investors. From 2018 to 2020, the equity investment volume totalled 915.4 million euros (excluding investments with undisclosed financial details, see Tab. 16, p. 70-71). This marks a significant increase of 51% over the previous three years (2017: 605.7 million euros). Licensing deals, M&A and major orders amounted to more than 2.3 billion euros.

Biotech/pharma companies in Vienna

In 2020, 260 biotechnology and pharmaceutical companies were active in Vienna, employing 15,130 people and generating 9.5 billion euros in revenue. Compared to 2017, when 239 companies resided in the city, this is an increase of 8%. The total number of dedicated biotech companies in Vienna raised from 78 to 91, generating 235 million euros in turnover. This is an upswing of 39% compared to three years ago.

With almost two-thirds (64%) of all Austrian biotechnology and pharmaceutical companies residing in Vienna, Austria’s capital can be considered the centre of the Austrian biotechnology and pharmaceutical industry. A little less than half of all biotech and pharma employees work in the city (47%). In 2020, the 260 Viennese companies together generated more than half of the total turnover of all Austrian biotech and pharma companies combined (59%, Fig. 4 illustrates this comparison). These numbers reflect the economic power of the biopharmaceutical sector in Vienna.

Vienna is Austria’s most important biotech/pharma location

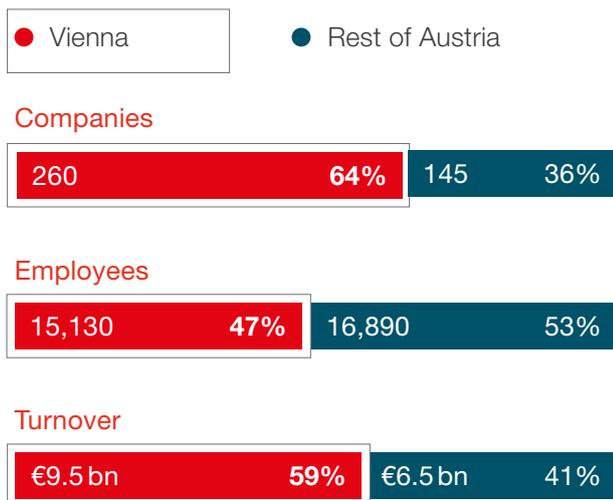


Figure 4: Total share of Vienna’s biotech/pharma industry in Austria’s biotech/pharma industry in terms of number of companies, employees and turnover (2020)

Growing number of companies

These figures include data provided by biotech and pharmaceutical companies with a focus on research, development or manufacturing as well as by core enterprises in the associated fields of sales, supply and services. Together, 139 firms with R&D or manufacturing activities are located in Vienna – a notable increase of 10% (2017: 126 companies). The number of sales companies, suppliers and service providers also increased: there were 121 such companies located in Vienna (2017: 113 companies).

Solid increase in turnover

The 139 biotech and pharmaceutical companies focussing on research, development or manufacturing generated revenues of 5.6 billion euros in 2020, an increase of 10% when compared to 2017 (5.1 billion euros). The turnover for sales companies, suppliers and service providers increased by 5% to 3.9 billion euros (2017: 3.7 billion euros). Accordingly, the overall turnover showed a substantial upswing: compared to three years ago, total revenues increased by 8% to a total of 9.5 billion euros (2017: 8.8 billion euros).

An essential local employer

Nearly three quarters of the people working in the biotechnology and pharma sector are employed in companies that concentrate on research, development or manufacturing (11,180 employees). Moreover, these companies had 793 million euros in R&D expenditures – an increase of 14% compared to 2017 (697 million euros). The group of research, development or manufacturing companies is divided

	Number of companies			Employees			Revenues in € m		
	2014	2017	2020	2014	2017	2020	2014	2017	2020
Biotech/pharma companies in total	216	239	260	13,950	14,040	15,130	6,748	8,774	9,487
Research, development, manufacturing	97	126	139	8,370	10,520	11,180	1,904	5,094	5,608
Dedicated biotech companies	67	78	91	870	990	1,310	99	169	235
Biotech active companies	13	31	33	6,810	8,680	9,270	1,556	4,524	4,976
Pharma companies without biotech	17	17	15	690	850	600	249	401	397
Sales, suppliers, service providers	119	113	121	5,580	3,520	3,950	4,844	3,680	3,879
Sales & distribution	91	76	79	4,750	2,710	2,980	4,718	3,447	3,569
Suppliers	9	10	13	230	380	510	64	169	233
Service providers	19	27	29	600	430	460	62	64	77

Table 2: Key figures for biotech/pharma companies in Vienna for 2014, 2017, 2020

into three categories: 91 ‘dedicated biotech companies’, 33 ‘biotechnology active companies’ that also have non-biotech business activities, and 15 ‘pharmaceutical companies’ that do not rely heavily on biotechnology in their day-to-day R&D and manufacturing endeavors.

Strong biotech departments

The ‘biotechnology active companies’ – most of them multi-faceted corporate pharmaceutical entities – run R&D facilities in Vienna. In 2020, the 33 ‘biotechnology active companies’ located in the Austrian capital employed 9,270 people

Key figures for dedicated biotech companies

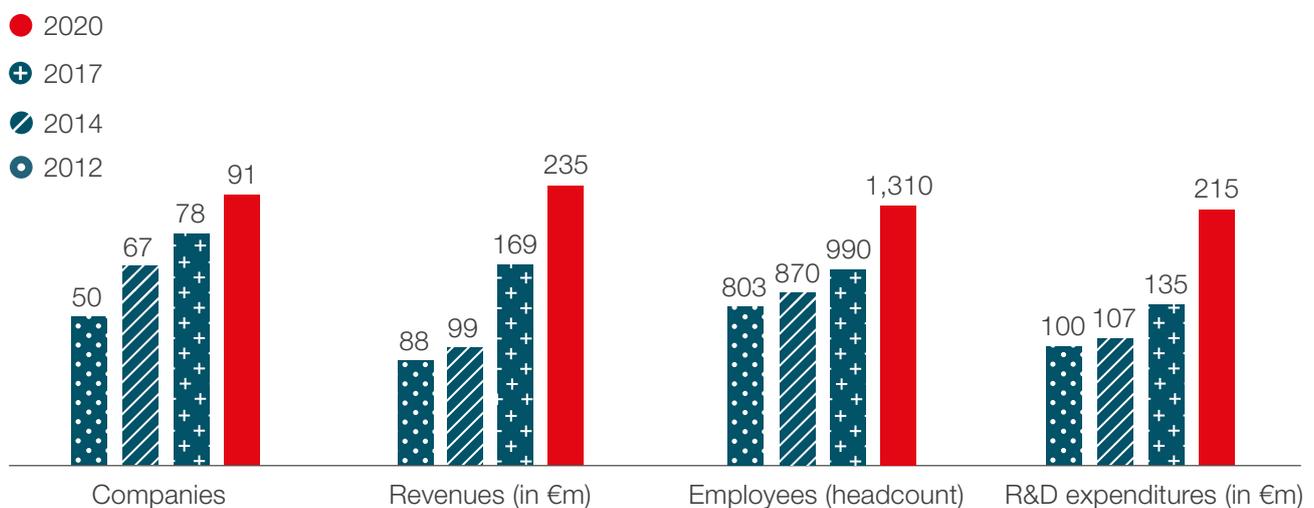


Figure 5: Key figures for dedicated biotech companies in Vienna for 2012, 2014, 2017, 2020

Biotech/pharma companies in Vienna according to sectors

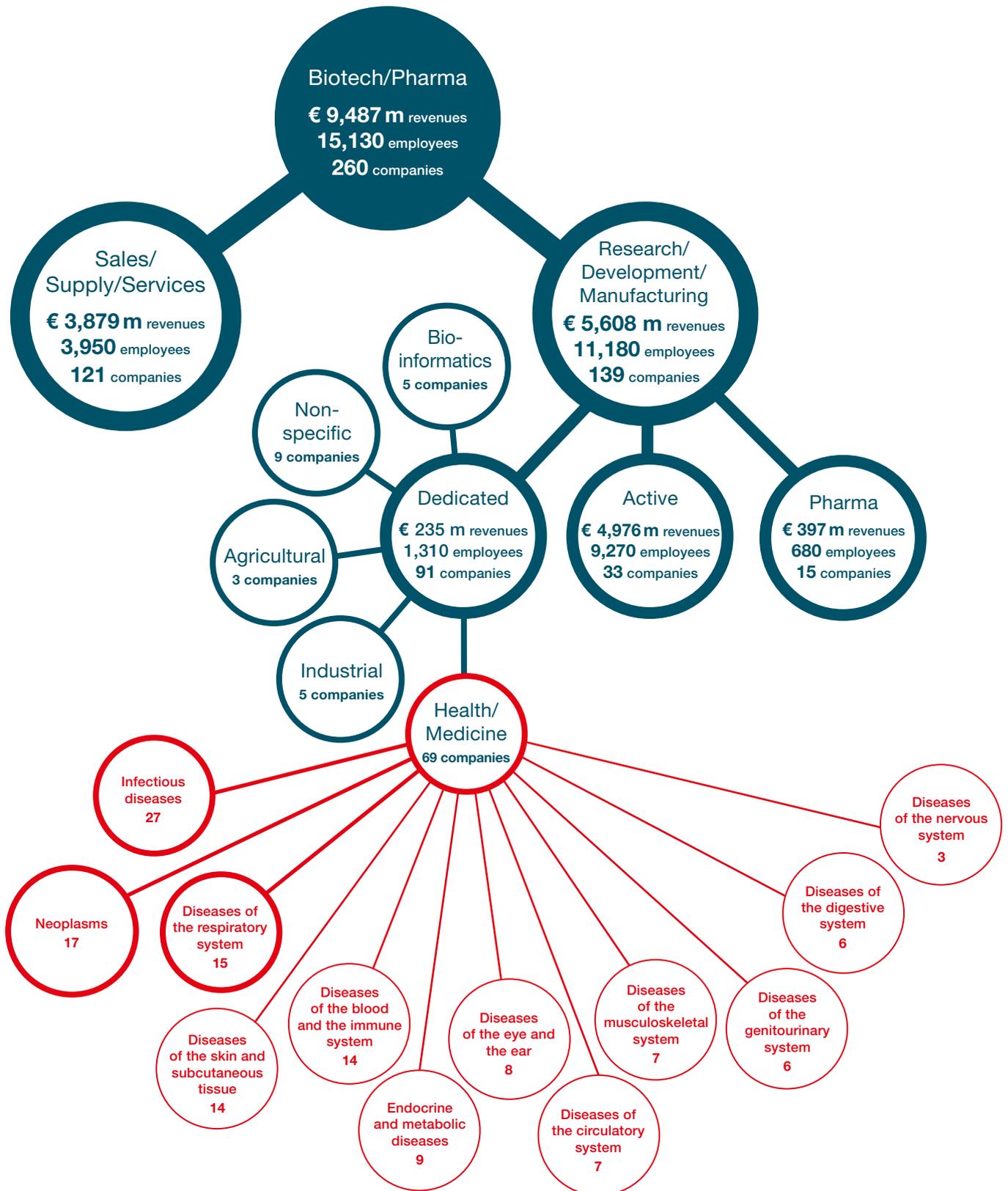


Figure 6: Biotech/pharma companies in Vienna according to sectors (2020); multiple selection only allowed for the fields of activities of medical biotech companies

and generated a turnover of 5.0 billion euros, which is almost 90% of the overall turnover generated by the 139 companies that focus on research, development or manufacturing. Not surprisingly, Vienna’s largest biotech/pharma employers - Boehringer Ingelheim, Takeda Manufacturing Austria and Octapharma Pharmazeutika - are within this group (see Tab. 3). Other big employers running smaller facilities in Vienna are Novartis Pharma and Merck Sharp & Dohme. Alongside the strong ‘biotechnology active companies’, 15 pharma companies generated a turnover of 397 million euros with state-of-the-art drugs and employed 600 people.

Dedicated biotechs are booming

In terms of total number of companies, ‘dedicated biotech’ businesses have seen outstanding growth over the last decade, more than doubling from 43 companies in 2010 to 91 in 2020. This dynamic is also seen in the job market: all dedicated biotech companies combined counted a total of 1,310 people on their payroll in 2020, an increase of almost one third (32%) from 990 people in 2017. Nevertheless, most of the dedicated biotech firms are relatively small. 70% employ less than ten workers (64 companies), and 22% between ten and 49 people (20 companies). The remaining seven companies employ 50 people or more, two even more than 100 (see Fig. 7). In 2020, the dedicated Vienna-based firms achieved revenues totalling 235 million euros (+40%, 2017: 169 million euros). The amount of money invested in R&D has increased significantly by 37% from 134.5 million euros in 2017 to 214.9 million euros in 2020. This reflects growing product portfolios and full pipelines.

Drug development in Vienna

Most of the dedicated biotech companies in Vienna focus on medical biotechnology. More than three quarters (69 companies, 76.6%) focus on drug development or diagnostics for a wide range of indications. Over one third of these companies (27 companies, 39%) concentrate on solutions for infectious diseases, while about a quarter state they have activities in cancer re-

Employee structure of dedicated biotech companies

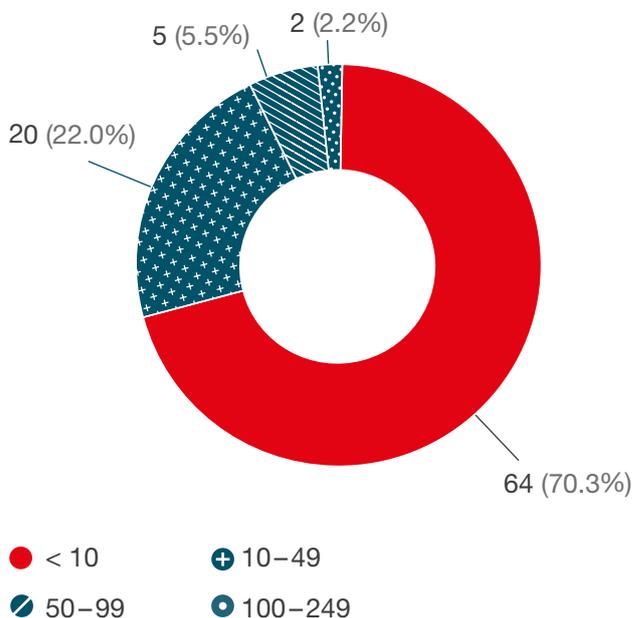


Figure 7: Size structure of dedicated biotech companies based on staff (2020)

search (17 companies). Fifteen companies concentrate on diseases of the respiratory system.

Invigorated financing situation

The financing situation of the dedicated biotech companies in Vienna has improved in recent years. In 2020, 22 dedicated biotech companies reported receiving 297 million euros from investors (see Tab. 16, p. 70-71 for examples).

Vienna’s largest biotech/pharma companies ranked by employees

#	Ranked by employees in 2020
1	Boehringer Ingelheim
2	Takeda Manufacturing Austria
3	Octapharma Pharmazeutika

Table 3: Top 3 biotech/pharma companies active in research, development or manufacturing in Vienna

Age structure of dedicated biotech companies

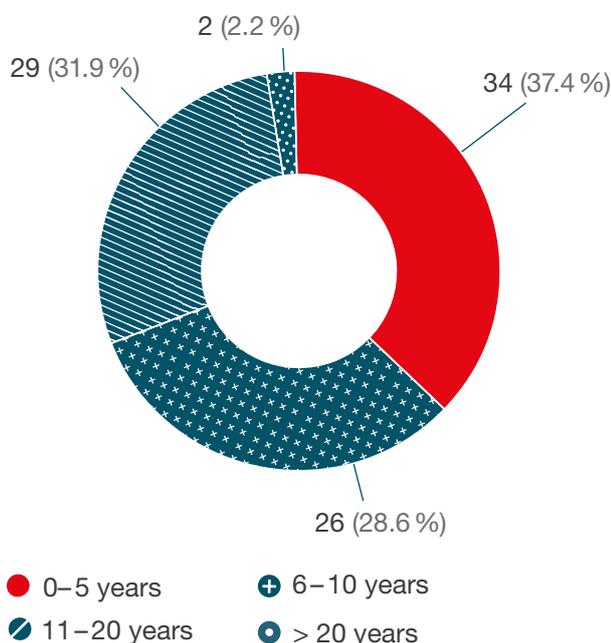


Figure 8: Age structure of dedicated biotech companies in Vienna (2020)

Almost a quarter (24%) came from venture capital investors raised by only two companies.

Public equity gains in importance

Stock markets were already playing a big role in 2017 and have further gained in significance as a source of capital since then. In 2020, two biotechs raised a total of 114 million euros by means of a capital increase. Another two dedicated biotech companies declared loans of 81.7 million euros (2017: 1.1 million euros reported by three companies).

Attractive partners for global players

Several Viennese biotech companies have been highly successful in establishing strategic partnerships worldwide. A total of 53 deals were noticed within the last three years (see Tab. 17, p. 72-75). For most of the licensing agreements and M&A activities, no financial details were disclosed. Entirely confidential deals are not included.

Start-ups are predominant

Two dedicated biotech companies (2%) have been in business for longer than 20 years and succeeded in mastering the technological and economic challenges that every biotech company is confronted with in its early stages (see Fig. 8). Therefore, the dedicated biotech sector in Vienna can be considered young. Over one third (37%) of the biotech companies still have this challenge ahead of them: 34 companies were founded within the last five years (37%). Twenty-six companies are between six and ten years old (29%), and 29 businesses between eleven and 20 years old (32%). Since 2017, 22 dedicated biotech start-ups have been founded in Austria's capital. Among them, five concentrate on cancer treatments and two focus on infectious diseases.

Therapies made in Vienna

Five biopharmaceutical products from Austrian dedicated biotech companies have already been made available to patients – all of them developed in Vienna. In the last three years, an antibiotic for use against pneumonia received market approval and joined four other products that were already approved. Two more drugs developed by Viennese biotechs are currently in the approval process. In addition, a synthetic peptide for treating acute respiratory distress syndrome (ARDS) has received Compassionate Use approval for the treatment of severe COVID-19 patients in various European countries.

Promising clinical pipeline

Another 34 drug candidates are in the clinical pipelines of Vienna-based dedicated biotech companies: 31 biologics and three small molecules. Thirteen drugs are in phase I trials, and 18 compounds have entered the second stage of clinical testing (see Fig. 9, p. 21). Three compounds have been advanced into phase III over the last three years, indicating a growing maturity of the pipeline. The overwhelming majority of all compounds currently undergoing clinical testing in Austria are being developed by companies in the capital Vienna. In the rest of the country, there are only five additional

compounds undergoing clinical trials at the moment. Furthermore, 48 preclinical compounds devised by Viennese companies were under investigation in 2020. Thirty-seven of them were biopharmaceutical substances and eleven small molecules. Clinical-stage products from ‘biotechnology active companies’ and ‘pharma companies’ are not included in this analysis.

Constant support to reach the market

Without the constant support of sales and distribution offices, suppliers and service providers, most of the biotechnology firms and pharmaceutical companies would not be able to operate successfully. In Austria’s capital, a total of 121 sales, supply and service companies employed 3,950 people and reported a turnover of 3.9 billion euros in 2020. The majority of this turnover, 3.6 billion euros (92%), was contributed by the 79 Vienna-based sales and distribution offices. Due to Austria’s convenient geographical position in the heart of Europe, nearly all globally

active pharma companies have chosen to establish sales and distribution offices here, most of them in the country’s capital Vienna (see Tab. 8, p. 37).

Suppliers and service providers

In addition to sales and distribution businesses, Vienna is also home to 29 service providers which primarily support clinical research. With 460 employees on their payroll, these service companies generated a turnover of around 77 million euros in 2020, a remarkable upswing of 20% when compared to 2017 (64 million euros). A positive development can also be observed in regards to supply companies. The 13 companies offering supplies to biotech and pharmaceutical firms increased both their workforce and their revenues significantly. In 2020, a total of 510 employees worked for the thirteen suppliers (+34%, 2017: 380 employees). Turnover amounted to 233 million euros in 2020, a strong plus when compared to the situation three years ago (+38%, 2017: 169 million euros).

Clinical pipeline of dedicated biotech companies

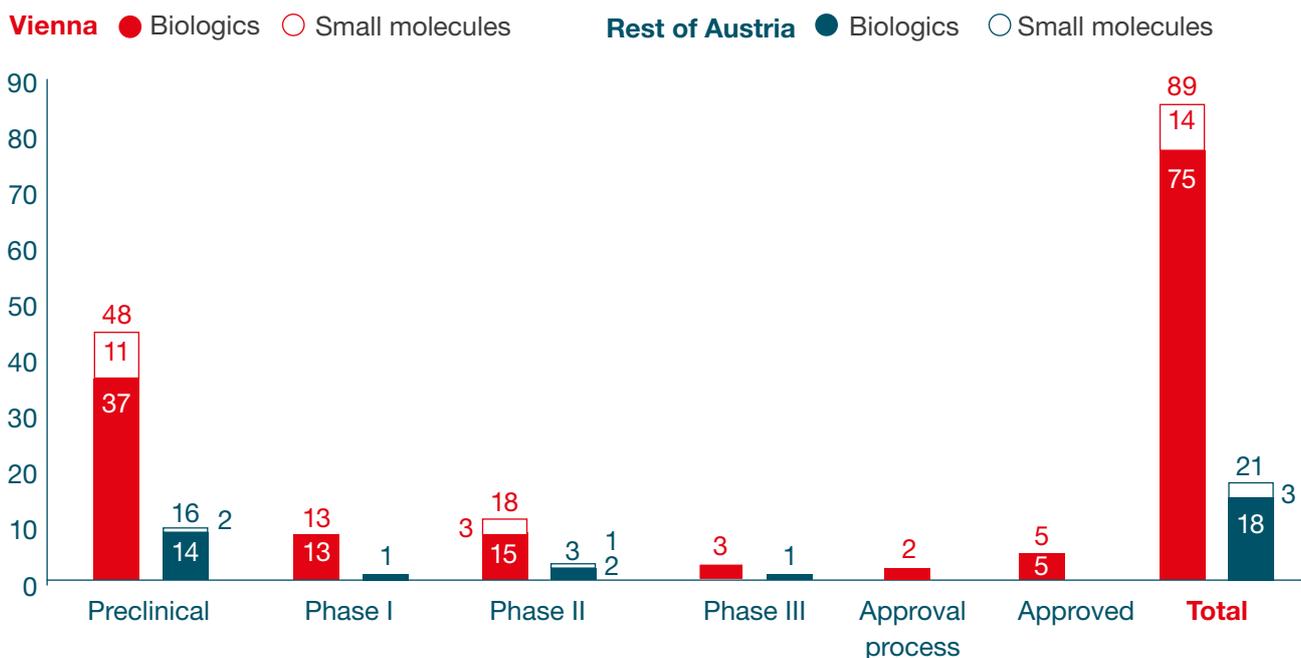


Figure 9: Number of therapeutics under development of Vienna-based and Austrian dedicated biotech companies (2020)

Medical device companies in Vienna

The medical device sector in Vienna is of particular importance to healthcare worldwide. Increased demand is an ideal basis for further growth of the sector. In 2020, a total of 251 medical device companies had their headquarters or operated a branch office in Vienna (+4%, 2017: 242 companies). The workforce rose from 8,890 in 2017 to 9,120 in 2020 (+3%). In total, the 251 Viennese medical device companies generated around 3.8 billion euros in revenues, an increase of 10% (2017: 3.4 billion euros).

Vienna is a highly attractive location for the medical device industry from a national and international perspective. Almost half (44%) of all Austrian companies in the medical device field have established their headquarters or branch offices in the capital, employing a third (32%) of all the country's corporate medical device staff. Its importance is further reflected in terms of turnover. In 2020, 42% of overall Austrian medical device industry revenues were generated by companies based in Vienna. Thus, Vienna can be considered the hub of the Austrian medical device sector.

Vienna – an essential pillar for Austria's medical device industry

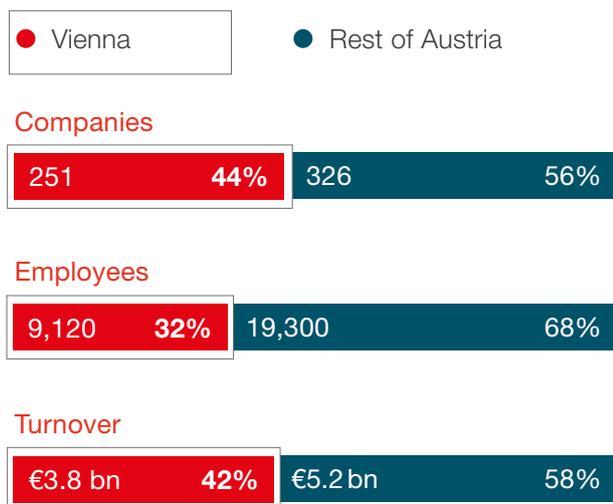


Figure 10: Total share of Vienna's medical device companies in Austria's medical device industry in terms of company number, employees and turnover (2020)

Research, development, manufacturing

One in four Viennese medical device companies is involved in research, development or manufacturing. A total of 65 'research, development or manufacturing companies' build the dynamic core of the sector. Compared to 2017, this is an increase of 27%. Turnover also increased by 13% to 1.3 billion euros (2017: 1.1 billion euros). This trend also continues in the job market: the number of people employed in the sector grew slightly from 2,280 in 2017 to 2,380 in 2020 (+4%).

Powerful traditional actors

Some of the oldest medical device firms active in research, development or manufacturing in Vienna have roots going back to more than 40 years. Nowadays, almost a quarter of medical device companies with research, development or manufacturing activities are more than 20 years old (16 companies). The average age is 17 years. This reflects the rejuvenation the sector is currently experiencing: Three years ago, the average medical device maker was 19 years old. In 2014, this figure was 26. Another seven firms are between eleven and 20 years old and 13 companies are six to ten years of age. The largest group of companies is even younger: 29 companies (45%) have been operating for less than five years.

Small start-ups enhance the sector

The large number of young companies that are active in the research, development or manufacturing of medical devices in Vienna shows that the sector is constantly growing. In 2020, four dedicated medical device firms were founded in Vienna. In 2019, three newcomers made their debut, and four

	Number of companies			Employees			Revenues in € m		
	2014	2017	2020	2014	2017	2020	2014	2017	2020
Medical device companies in total	218	242	251	8,175	8,890	9,120	3,171	3,439	3,798
Research, development, manufacturing	36	51	65	1,965	2,280	2,380	1,126	1,121	1,267
Dedicated medical device companies	32	46	61	1,040	1,340	1,460	159	206	292
Companies active in medical devices	4	5	4	925	940	920	967	915	975
Sales, suppliers, service providers	182	191	186	6,210	6,610	6,740	2,045	2,319	2,531
Sales & distribution	159	161	150	4,020	4,150	4,360	1,716	1,915	2,085
Suppliers	10	13	16	470	480	470	75	123	112
Service providers	13	17	20	1,720	1,980	1,910	254	281	335

Table 4: Key figures for medical device companies in Vienna in 2014, 2017, 2020

in 2018 (see Tab. 12, p. 56). Reflecting the state of medical device industry throughout the country as a whole, most of the companies residing within the capital are small or medium in size. In fact, 39 companies (60%) employ a staff of nine people or less and a further 20 companies (31%) have between ten and 49 employees on their payroll. Larger companies are rare: four have a workforce between 50 and 99 people, two companies have 100-249 employees and 250+ respectively (see Fig. 12, p. 25).

Dedicated medical device companies

Most of the 'research, development or manufacturing companies' in the medical device sector are entirely committed to this field of activity: there are 61 'dedicated medical device companies', 15 more than three years previous (2017: 46 companies) and only four other 'companies active in medical devices' (2017: 5 companies) for which medical devices are only one among a number of business segments. The companies that focus exclusively on research, development or manufacturing of medical devices recorded a total of 1,460 employees in 2020 (+9%, 2017: 1,340 employees). The economic impact of these companies also grew: Viennese dedicated medical device companies achieved a turnover of 292 million euros in 2020, which is almost 42% more than was recorded three years ago (2017: 206 million

euros). Dedicated medical device companies are highly innovative and rely on research and development to keep adding new products to their portfolio. In 2020, the amount invested in R&D was 57 million euros (+8%, 2017: 53 million euros). This demonstrates the importance placed by medical device companies on research and development.

Marvellous medical device divisions

Vienna is home to four 'companies active in medical devices'. In 2020, they generated almost 1 billion euros in turnover – an increase of 7% compared to 2017 (915 million euros). The workforce showed a minor decrease to

Vienna's largest medical devices companies ranked by employees

#	Ranked by employees in 2020
1	Semperit
2	Otto Bock
3	Dedalus HealthCare

Table 5: Top 3 medical device companies active in research, development or manufacturing in Vienna

Medical device companies in Vienna according to sectors

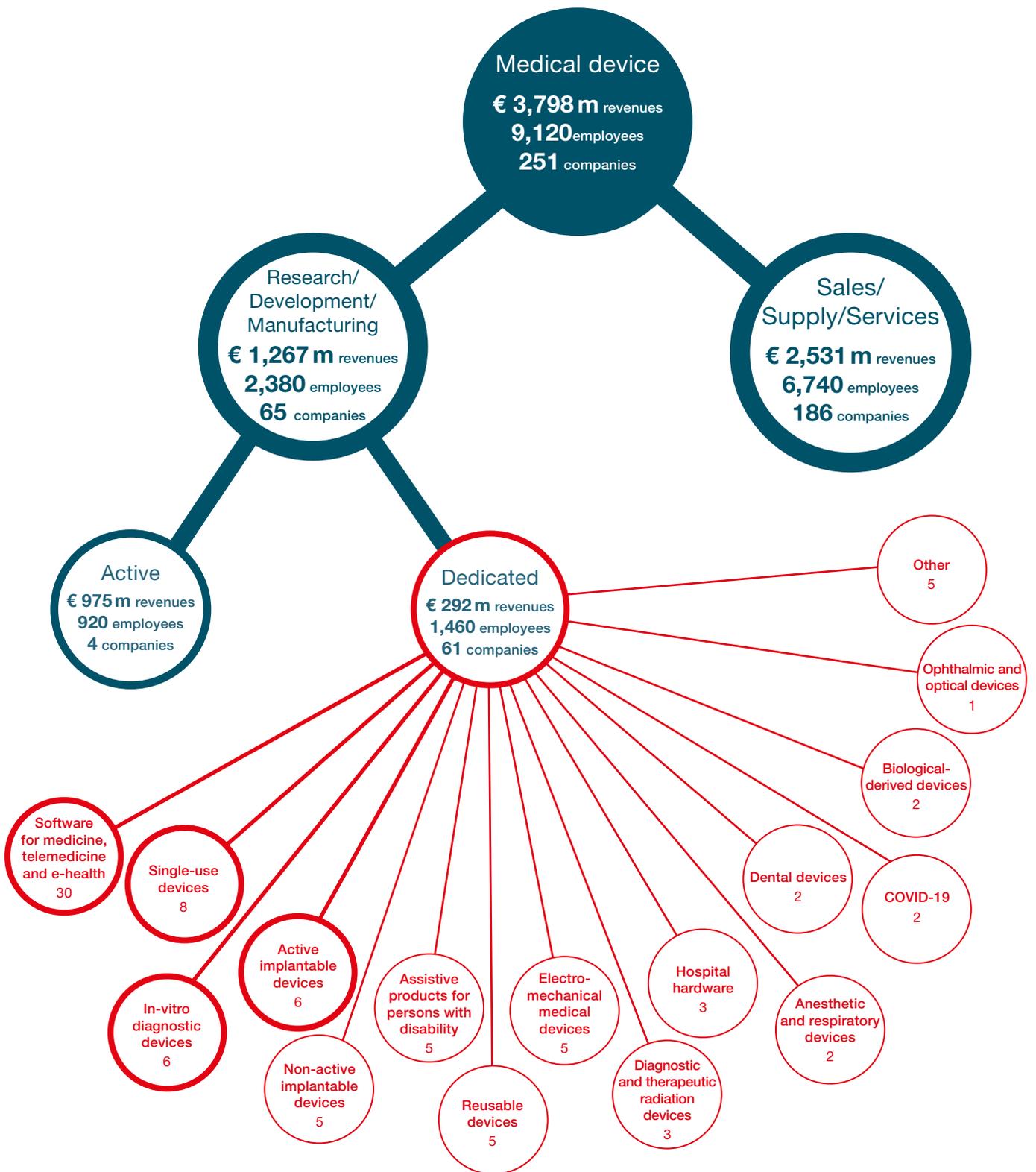


Figure 11: Medical device companies in Vienna according to sectors (2020); multiple selection only allowed for the fields of activities of dedicated medical device companies

920 employees in 2020 (2017: 940 employees). On average, each employee generates more than one million euros in turnover. This is five times as much as the turnover achieved per employee in the 'dedicated medical device companies' group.

Software as a medical device

The largest activity area of the dedicated medical device companies in Vienna is also the one with the biggest growth: the development of specialized software and other products for telemedicine and e-health solutions. Thirty companies develop or offer products and services in this field, which is one half more than in 2017. These companies make up almost half of all dedicated companies (49.1%). The surge in companies that are active in this field is not surprising, considering this area plays a growing role in all healthcare systems. However, Vienna's medical device companies are also active in other areas: Eight companies focus on single-use equipment. Six companies each concentrate on active implantable devices or on in-vitro diagnostic devices. Both divisions represent 10% of all medical device companies in Vienna. Since in-vitro diagnostic devices lie at the intersection between biotechnology produced goods and medical devices, the numbers presented here are incomplete as some figures were included within the biotech/pharma sector.

Assisting research and development

Many medical device companies active in research, development or manufacturing would be unable to operate without the constant support of suppliers, service providers and distributors. In 2020, there were 186 Viennese medical device companies that operated either as distributors, suppliers or service providers. In terms of workforce, the total numbers of employees grew marginally from 6,610 in 2017 to 6,740 in 2020 (+2%). Turnover increased more substantially: the companies together brought in 2.5 billion euros (+9%, 2017: 2.3 billion euros).

Global players go for sales

The Austrian capital has a lot to offer: its central geographical location within Europe, the excellent infrastructure and the great relationships with

Employee structure of research, development or manufacturing medical device companies

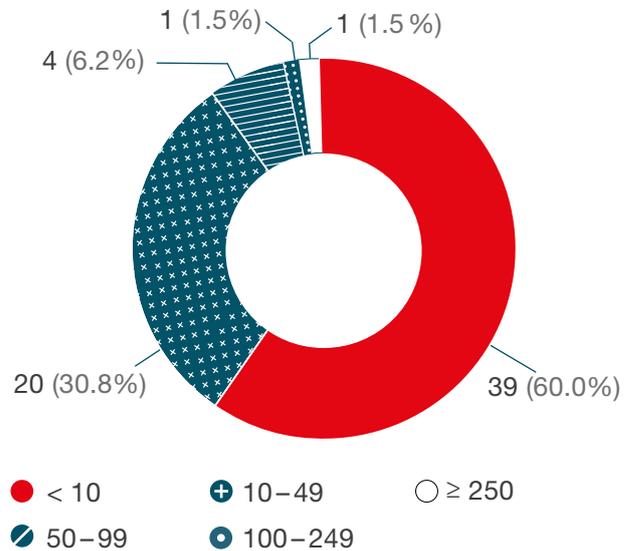


Figure 12: Size structure of research, development or manufacturing medical device companies according to their staff (2020)

both its eastern and western neighbours makes it attractive to market leaders in the international medical device industry. Almost all of them have offices in Vienna (see Tab. 8, p. 37). 150 sales and distribution companies employed 4,360 people in 2020 and generated revenues of 2,085 million euros (+9%, 2017: 1,915 million euros).

Strong group of suppliers available

In 2020, there were 16 suppliers with offices in Vienna (+23%, 2017: 13 companies). They employed a total of 470 people and generated a turnover of 112 million euros in 2020. Compared to 123 million euros in 2017, this is a slight decrease of 9%.

Service providers increase turnover

The largest growth regarding sales can be observed in the service field. A total of 20 companies have offices in Vienna and employ 1,910 people (2017: 17 companies with 1,980 employees). The turnover grew from 281 million euros in 2017 to 335 million euros in 2020, which constitutes a significant increase of almost 20%.

Spotlight on academic research and education

Vienna is home to Austria’s oldest, and one of Europe’s biggest, universities – the University of Vienna. It was founded more than 650 years ago and sits alongside 17 other excellent academic life science research and education institutions with departments in Austria’s capital. Their utmost goal is to generate knowledge and educate the researchers of tomorrow. These 18 players include five universities, two universities of applied sciences and eleven non-university research institutes. Their research activities range from biological and medical sciences and bioinformatics to environmental, agricultural and industrial biotechnology.

Research and education have a long and proud tradition in Vienna. The Austrian capital is not only an attractive hot spot for scientists from all over the world, it is an established and important location where highly skilled professionals come to work. By the end of 2020, more than 14,500 people were working in the academic life science sector in Vienna and well above half of them were researchers (56%). The jobs offered in the life sciences cover a wide variety of professions from clinical researchers, lab researchers, computer specialists and engineers

to project managers, financial and administrative experts. Within Austria, Vienna counts as one of the most attractive locations for science: close to 60% of all employees involved in the life sciences at academic institutions work in the capital.

Vienna – Austria's scientific powerhouse in the life sciences

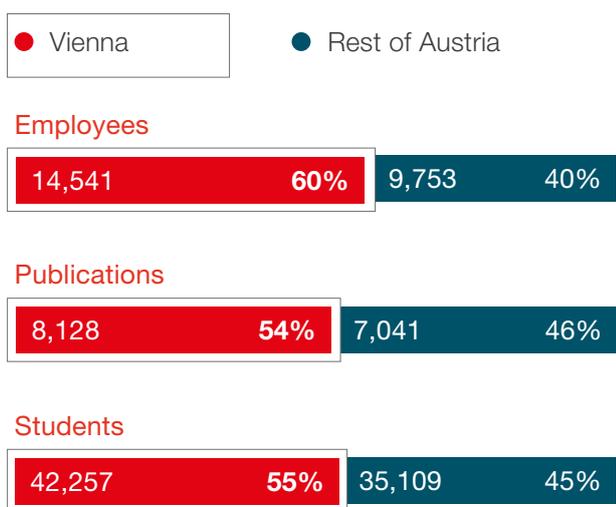


Figure 13: Number of life science employees, publications and students in respectively by academic institutions

Talent builds the foundation

Furthermore, with more than 42,000 students in the life sciences alone, Vienna educates more young scientists in the field than all the other federal states in Austria combined (55%). Vienna also leads the field with respect to scientific quality when measured on the basis of peer-reviewed publications. In 2020, Viennese scientists published around 8,128 life science papers, more than all other research institutions throughout Austria combined (54%). This output relies on significant public funding, especially as research in the life sciences is usually very time-consuming and costly. Seventeen Vienna-based institutions provided information on their life science budget in 2020: they had a total of 620.6 million euros available. In addition, the excellence of Viennese scientists is reflected in the fact that they are highly successful at raising third-party funds. For this part of the survey, 14 institutions provided their figures. Together they raised a total of 255.2 million euros in external financing.

Prestigious universities

The capital’s core scientific base lies in its five universities. The largest one is the University

	Employees			Publications			Students		
	2014	2017	2020	2014	2017	2020	2014	2017	2020
Total number	11,975	12,620	14,541	4,816	4,602	8,128	32,872	34,743	42,257
Universities	10,376	11,014	12,809	4,230	4,099	7,601	31,612	33,718	41,199
Universities of applied sciences	50	59	71	14	3	10	1,260	1,025	1,058
Non-university research institutes	1,549	1,547	1,661	572	500	517	–	–	–

Table 6: Key figures for research and education institutions in Vienna for 2014, 2017 and 2020

of Vienna, founded back in 1365. Although the Medical University of Vienna was established as a Medical Faculty of the University of Vienna in the same year, it has been an autonomous university since 2004. The two universities jointly carry out research in molecular biology at the Max Perutz Labs Vienna at the Vienna BioCenter. In 1765, the academic scene was enlarged by Empress Maria Theresa, who founded the University of Veterinary Medicine as the first educational establishment for veterinary medicine in the German-speaking world. In 1815, TU Wien was established and finally, in 1872, the University of Natural Resources and Life Sciences (BOKU) was initiated, which has a strong focus on applied biotechnology. Today, the scientific relevance of the universities is high: together, their 12,809 life science employees generated 7,601 publications in peer-reviewed journals in 2020. All Viennese universities provided information about their life science budget for this report. They report having spent 428.6 million euros in 2020. In total, 41,199 students attended university studying courses in the life sciences in 2020.

Universities of applied sciences

Vienna is home to two applied sciences universities with life science departments. The University of Applied Sciences Technikum Wien is the largest Austrian university for technical applied sciences. With respect to the life sciences, the thematic emphasis of its bachelor

and master study programs is on biomedical engineering, e-health and renewable technologies. The University of Applied Sciences FH Campus Wien on the other hand is the largest Austrian applied sciences university. Within the field of life sciences, it educates its students in the areas of bioengineering, bioinformatics and molecular biotechnology, among others. In 2020, the two universities of applied sciences had 1,058 students and employed 71 people in the life sciences.

Non-university research institutes

Vienna is home to eleven non-university research institutes active in life sciences. Among these is Austria's largest non-university research institute, the AIT Austrian Institute of Technology. The list further includes the Institute of Molecular Pathology (IMP), which is Boehringer Ingelheim's fundamental research center, and institutes operated by the Austrian Academy of Sciences (ÖAW). ÖAW runs the Center of Molecular Medicine (CeMM), the Gregor Mendel Institute of Molecular Plant Biology (GMI) and the Institute of Molecular Biotechnology (IMBA) in Vienna. Ten of these institutes provided information, reporting that they employed 1,661 people in the life sciences – of which 82% were researchers – published 517 articles in peer-reviewed journals, and had a combined life science budget of 189 million euros in 2020.



ANATOMIE

STAATS

WISSENSCHAFT

RECHTS

WISSENSCHAFT

Other organizations

The success of Vienna's life science community is linked to other organizations either nurturing the sector, or being responsible for facilitating the uptake and application of the latest research findings. Life science experts in government entities, at funding agencies, trade unions, scientific organizations or other professional associations provide key services to stimulate research and to strengthen the economy. Several organizations increase the benefits of the sector to society by opening innovation processes to the public, and steering research towards urgent issues.

In addition to typical life science companies and research and education institutions, Vienna is home to 68 other scientific organizations with 2,170 employees on their payroll. Each of this highly diverse group of actors focuses on a specific niche in the life science ecosystem. Government entities, for example, are responsible for a broad range of tasks in the medical, food or environmental sector assigned to them by law. Funding agencies provide financial support and advice, specialist associations advance topics of interest to their members while additional organizations operate scientific equipment required for cutting-edge research. The pandemic has clearly demonstrated their strategic importance and inspired a closer look when compiling this report.

Recognizing strategic relevance

Other than indicated by the figures in Table 7, this is not a growing segment. Most of the organizations were founded many years ago but have only been added to the survey sample over time to recognize their increased relevance. A detailed list of all organizations included in the sample is available in the Annex (see Tab. 15, p. 68).

Most of them fall into one of the following categories:

- Governmental entities
- Special interest groups
- Funding agencies
- Units operating core facilities
- Start-up service providers

As regards employees, only staff dealing with life science issues has been considered for the statistics.

New economic interest groups

Scientific associations focusing on all facets of the life sciences and special interest groups for the pharmaceutical and medical device industries have been active in Austria for many years. However, Austria's first specific industry associations for digital health and the biotechnology industry were launched recently in Vienna. This represents a key milestone symbolizing the maturation of Austria's biotech sector and the digital health business. The aim of these associations is to strengthen and promote collaboration between government, science, and their respective business segment.

	Number of organizations			Employees		
	2014	2017	2020	2014	2017	2020
Other organizations	28	55	68	1,630	2,045	2,170

Table 7: Key figures for other organizations based in Vienna (2014, 2017, 2020) whose expertise is required for a fully functional life science ecosystem.

Key ingredients for success

Vienna has more to offer than its outstanding quality of life at the heart of Europe and has more to its fame than its great music and its unique cultural heritage. The city is also a highly dynamic innovation hub – especially in the life sciences. Almost 50 new life science companies opened their doors in Vienna in recent years and others decided to expand into the region. In 2020, some 600 companies, research institutions and additional organizations employed almost 41,000 people in the life sciences. The companies alone generated almost 13.3 million euros in revenues as the analyses provided in the previous chapters show.

Vienna sees itself as a metropolis of culture, creativity, and health. There is a strong trust in the power of innovation to come up with the smart solutions required for strengthening Vienna as a business location and for creating jobs for the 21st century. The Vienna Economic Council encourages smart and sustainable production in the city, digitalization efforts and improves the framework conditions for international affairs.

Outstanding academic backbone

Vienna's excellent academic research and education form the life science community's core backbone. The city is brimming with talent and is attracting more students than any other city in the German-speaking region. This represents a revival of Vienna's strong scientific tradition. Empress Maria Theresa was crucial to developing this expertise and in founding the oldest medical and veterinary science institutions in the German-speaking regions here. Today's scientists focus on a broad range of research questions contributing to increasing our understanding of the basic principles of life or looking into issues relating to food and nutrition as well as acquiring clinically relevant medical knowledge.

Successful role models

Within the last three years, life science companies from the region announced investment agreements worth more than €900 million. In addition, M&A and major orders totalling more than €2.3 billion have been reported in this period. Deals with confidential financial details are not included in these

figures, but are nevertheless an all-time high for Vienna. The enterprises making these deals serve as outstanding role models for the next generation of entrepreneurs. Lists including details are available in the appendix. In addition, connecting with big players allows learning from the best. Start-ups also appreciate being able to collaborate with academia at Vienna's life science hot spots, giving them access to expertise, talent, and otherwise unaffordable research infrastructure.

Addressing urgent needs

Researchers, entrepreneurs, and authorities collaborate in Vienna to come up with the much needed solutions for the diverse challenges our society is facing. The pandemic has clearly shown the community's dedication and capabilities. The next big issues include environmental affairs, climate change and applying digitalization and artificial intelligence in a responsible way. Overall, Austria is committed to contributing to the European Union's efforts to achieving the WHO's sustainable development goals. This will again require crossing the traditional boundaries between previously separate groups of actors and open interesting new markets.

Proven support programs

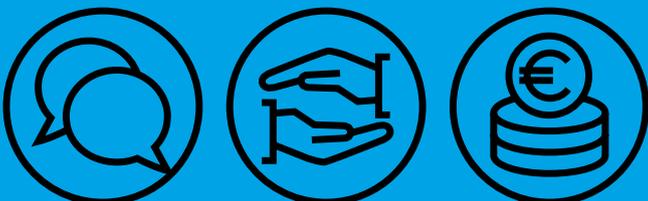
Austria R&D tax premium of 14%, a maximum corporate income tax of 25%, proven funding programs and advice free of charge create a 360-degree support environment that nurtures innovation. Today, Vienna is overflowing with investment and licensing opportunities because of its constantly growing start-up community.

We are here for you. The Vienna Business Agency provides advice for business owners in Vienna.

Find the information you
need and get useful advice.

Contact us:
+43 1 25200
info@wirtschaftsagentur.at
viennabusinessagency.at/
funding

vienna
business
agency



Vienna offers 360-degree support for start-ups and scale-ups

Vienna is a great place for business. The city is home to tremendous knowledge and talent, spurring innovation. And Austria is an ideal country to test new products and services for health or environmental protection. In Vienna, you will find extensive national and regional funding opportunities, complementing the support provided by the European Union.

The Austrian government provides various grants, loans, and guarantees as well as free consulting services. To develop prototypes and for proof-of-concept experiments, you might want to apply for a grant of up to 200,000 euros through the aws PreSeed program. Successful projects can move on to the next stage and get support from the aws Seedfinancing program. Milestone payments totaling up to 800,000 euros are available through this program. They will help you grow your company. In addition, the Austrian Research Promotion Agency (FFG) provides up to 3 million euros for R&D projects to develop commercially viable products, processes and services in Austria. These national funds are topped off by funds from the Vienna Business Agency.

Access private equity

Experienced investment managers at our funding agencies will support you in finding licensing partners and help you to access private equity for scaling up. Implement a sophisticated venture capital strategy with co-investments by the aws Founders Fund. Early-stage drug developers in Austria also have access to the aws supported €60 million KHAN-I fund through wings4innovation.

Benefit from top research facilities

In Vienna, advanced scientific equipment is available for joint use which provides innovators with a competitive edge. Instruments such as those operated by the Vienna BioCenter Core Facilities, at the Medical Hill Vienna, and at BOKU EQ improve pipeline projects and increase their success rate. Services include NGS, metabolomics, protein technologies, cutting-edge visualization techniques, and plant growth chambers for green tech research.

Rent affordable lab space

In summer 2020, the Vienna Business Agency opened much sought-after affordable and flexible Startup Labs at the Vienna BioCenter. Several new lab buildings for life science entrepreneurs of all sizes are in the pipeline and they will allow local and international innovators to start-up and grow in the region.

Hire the experts you need

The education programs at Vienna's schools and universities not only cover all facets of the life sciences, but also the other roles that a successful enterprise requires. Recruiters appreciate the ease in which they can attract talented young people here. Additionally, the city's outstanding quality of life, expat community and excellent social insurance facilitate hiring specialists from abroad.

Start new collaborations

Vienna is Austria's most important node for high-end medicine and experienced partners for clinical research are widely available. Whether you are focusing on health or bioeconomy research, you will certainly find outstanding scientists and entrepreneurs to partner with in Vienna.

Get advice at no cost

Reach out to LISAVienna to realise your business idea in the heart of Europe. Together with our colleagues at the funding and support agencies, we will accompany you on your way to success and connect you with regional incubators and accelerators, academic institutions, peers and development partners.

LISAvienna – Connecting life sciences

LISAvienna is Vienna's central life science platform and your key professional partner for the city's biotechnology, pharmaceutical, medical device and digital health cluster. For some 20 years, LISAvienna has been providing free services, especially to start-up companies in Vienna and to international partners looking for licensing and investment opportunities.

LISAvienna is a joint life science platform operated by Austria Wirtschaftsservice and the Vienna Business Agency. On behalf of the Austrian Federal Ministry for Digital and Economic Affairs and the City of Vienna, it contributes to the advancement of life sciences in Vienna. LISAvienna supports innovative biotech, pharmaceutical and medical device companies in Vienna that develop and market new products, services and processes. The platform links these companies with development partners and key customers. As a central knowledge carrier, LISAvienna provides input for decisions to advance the life sciences in Vienna and positions the city as one of the leading European innovation centers.

Contact us to get personalized advice on sponsorship and financing. Grow your network at our events in Vienna and join us at international trade fairs and delegation visits. We also invite you to stay updated with our electronic newsletter and by following us on social media.

LISAvienna's services

- **Information & Consulting**
Tips and contacts relating to sponsorship, private financing options, infrastructure in Vienna, development partners, leading customers, and internationalization
- **Networking & Matching**
Contacts for improved networking and knowledge transfer, as well as contacts to development partners, leading customers, and investors worldwide
- **Expertise**
Analyses, background information, reports, and studies relating to life sciences in Vienna
- **Marketing**
Electronic and printed news items from the field of life sciences in Vienna

To learn more about Vienna, a prime location for life sciences, please visit our website www.LISAvienna.at

LISAvienna partnering

We arrange tailor-made meeting schedules for global players and investors. Contact us and meet all the Vienna based start-ups you are interested in on a single day in Vienna or online.



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Life science hotspots in the city

In addition to the infrastructure of industry leaders, several hotspots for life science have emerged over the years around the city's outstanding academic organizations. These are key drivers of Vienna's dynamic start-up community.



Creativity, courage, and scientific rigor are embraced in the life science hotspots around Vienna. Each hotspot is unique.

Vienna BioCenter

The Vienna BioCenter is a leading life science centre which meets international standards. It offers an extraordinary combination of research, business, and education. There are four basic research institutes here: the Research Institute of Molecular Pathology (IMP) funded by Boehringer Ingelheim, the Gregor Mendel Institute of Molecular Plant Biology (GMI), and the Institute of Molecular Biotechnology (IMBA), both founded by the Austrian Academy of Sciences. There is also the Max Perutz Labs Vienna, which is jointly operated by the University of Vienna and the Medical University of Vienna. A new building allowed the University of Vienna to relocate additional biology institutes to the campus. For more than a decade, the Vienna BioCenter's scientific core facilities for joint use have accelerated research

and development by providing outstanding equipment and services. The Vienna BioCenter encourages research-driven education and is home to some 38 biotech and medtech companies.

Medical University of Vienna

The Medical University of Vienna is one of the most renowned medical universities worldwide. It is closely connected to Europe's largest university clinic, Vienna General Hospital. On the campus, 77,500 inpatient and 457,000 outpatient cases are treated each year, including 53,000 operations. Educating more than 7,700 students, Vienna hosts the largest center for medical training in German-speaking regions. You will find CeMM, the Austrian Academy of Sciences' renowned Research Center for Molecular Medicine, on the campus. The St. Anna Children's Cancer Research Institute is located nearby. And the campus keeps growing. New centers for translational medicine, personalized medicine and technology transfer are to be built. This will encourage spin-off activities and facilitate the development of new products and services for the benefit of patients worldwide.

BOKU biotech hotspot

The University of Natural Resources and Life Sciences, known as BOKU, contributes to knowledge-based production and use of biological resources. The university's broad and long-standing biotech expertise is valued by its commercial partners. It has contributed significantly to building the Austrian Center of Industrial Biotechnology (ACIB). Pilot plants and other special infrastructure allow for the testing of revolutionary approaches to biotechnology production processes. BOKU's spin-offs address

a wide range of sectors, including biomedicine and the bioeconomy.

Additional hotspots

The University of Veterinary Medicine in Vienna is the only university in Austria to carry out education and research in veterinary sciences and the oldest in the German-speaking region. Today, Vetmeduni Vienna focuses on animal health, preventive veterinary medicine, public health and food safety. The university campus hosts 1,500 employees and 2,440 students.

TU Wien is Austria's largest technical university and one of the most successful in Europe. Its expertise in the life sciences includes bioana-

lytics, sensor development, medical devices, chemical and material sciences and software development. Two universities of applied sciences, FH Campus Wien and FH Technikum Wien, the Austrian Institute of Technology (AIT), and several federal labs form additional expertise hubs. Additionally, anticipated business infrastructure, including one of Europe's largest urban development areas, aspern Seestadt in the north-east of the city, provides room for modern R&D and manufacturing facilities. It is also a space for biotechnology, as demonstrated by Biomay's new facilities in Seestadt.

More information is available online at www.LISAVienna.at.



Vienna BioCenter

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Big players appreciate Vienna

Most of the top 20 global market leaders maintain a strategic presence in the Vienna region. The city's unique geographical position at the heart of Europe makes Vienna an ideal location for distribution and sales. Some international players also carry out research and product development, preclinical and clinical research, and production.

The following examples highlight some of the global players that operate large units in the Vienna region. Continue reading to get an idea of the characteristics of this highly important group of employers.

Manufacturing life-saving drugs

The Boehringer Ingelheim Regional Center Vienna is involved in human pharmaceuticals and the animal health business in more than 30 countries. A new €700 million biopharmaceutical production plant opened its doors in 2021. More than 2,000 employees are working in research, development, manufacturing, and marketing of biopharmaceutical drugs in Vienna.

Octapharma focuses on the development and manufacturing of treatments for patients in critical care or suffering from coagulation and immune disorders. This specialist in human protein manufacturing operates its largest GMP

manufacturing plant here in Vienna, including one of the most modern FDA-approved plasma fractionation facilities.

Takeda manufactures several life-saving drugs in Austria. Some 4,500 employees deliver “made in Austria” drugs, including drugs for rare diseases derived from human blood plasma or therapeutically active recombinant proteins.

Solutions to improve daily life

Ottobock is a leading innovator for prosthetics, orthoses, wheelchairs and exoskeletons. The health-tech company provides products and services to improve mobility and quality of life for patients and users to enable them to live independent everyday lives. The company operates an R&D and manufacturing facility in Vienna, where products in excess of 150 million euros were developed and produced last year.

Financial support for organizing congresses in Vienna

The pandemic prohibits large meetings or brings about uncertainties and requires organizers to come forward with highly professional security, hygiene, and hybrid staging strategies. Vienna provides financial support.

- Vienna Meeting Fund 2021-2023 facilitates organizing congresses and corporate events in Vienna
- Vienna Convention Fund 2024+ supports organizing international congresses in Vienna from January to April, and in July, August, November and December

Additional information is available online at www.vienna.convention.at

Top global market leaders ranked by global sales 2020

Biotech/pharma company			Medical device company		
1	Roche	●	1	Medtronic	⊕
2	Novartis	●	2	Johnson & Johnson	●
3	AbbVie	●	3	Philips	⊕
4	Johnson & Johnson	●	4	Abbott	⊕
5	Bristol-Myers Squibb	●	5	General Electric	
6	Merck & Co / MSD	●	6	Becton Dickinson	⊕
7	Sanofi	●	7	Siemens	●
8	Pfizer	●	8	Cardinal Health	⊕
9	GlaxoSmithKline	●	9	Stryker	⊕
10	Takeda	●	10	Roche	●
11	AstraZeneca	●	11	Boston Scientific	⊕
12	Amgen	●	12	B. Braun	
13	Gilead Sciences	●	13	Zimmer Biomet	⊕
14	Eli Lilly	●	14	Baxter	⊕
15	Novo Nordisk	●	15	Alcon Laboratories	⊕
16	Bayer	●	16	Danaher	
17	Boehringer Ingelheim	●	17	3M	⊕
18	Astellas Pharma	●	18	Olympus	⊕
19	Viartis	⊕	19	Terumo	
20	Teva Pharmaceutical Industries	●	20	Grifols	

Source: PharmExec: Top biopharma companies (ranked by sales 2020)

Source: MD+DI & Qmed: Top medtech companies (ranked by sales 2020)

Table 8: Top global market leaders ranked by global sales 2020

⊕ operating presence in Vienna ● R&D or manufacturing in Vienna

Hand protection is headquartered in the Vienna region. Sempermed is the medical arm of the Semperit group and one of the world's leading producers of medical and industrial gloves. A large variety

of glove types is available such as an award-winning anti-allergenic surgical glove. New sustainable production processes will reduce the single-use products' ecological footprint in the future.

Find experienced clinical research partners

Vienna is Austria's most important node for top-notch medicine. High-level researchers lay the ground for bringing innovative treatments, in vitro diagnostics, and medical devices from bench to bedside. In the city, you will find all the services necessary to conduct state-of-the-art trials and performance evaluations at the highest international standards.



Some 20 private and public hospitals are located in the Austrian capital. They provide first class healthcare services to Vienna's 1.9 million inhabitants, as well as to the 3.9 million people living in the Vienna metropolitan region. This large pool of patients is a significant asset for conducting clinical trials. Special support units facilitate access and offer professional management services. The Medical University of Vienna is a key partner. It has close ties to Vienna General Hospital, operated by the Vienna Hospital Association. A new Center for Translational Medicine is under construction, and it will include a phase I/II study center. Among non-profit hospitals maintained by a religious order, the Vinzenz Gruppe is an ideal addition to any network.

Established research clusters

Five medical research clusters have been established in Vienna, connecting basic science with clinical research. These are immunology, cancer, medical neuroscience, medical imaging and cardiovascular diseases. For oncology, ad-

ditional units like the Vienna Cancer Center and the Austrian Breast & Colorectal Cancer Study Group ensure that patients benefit as quickly as possible from scientific progress.

Expertise in orphan diseases

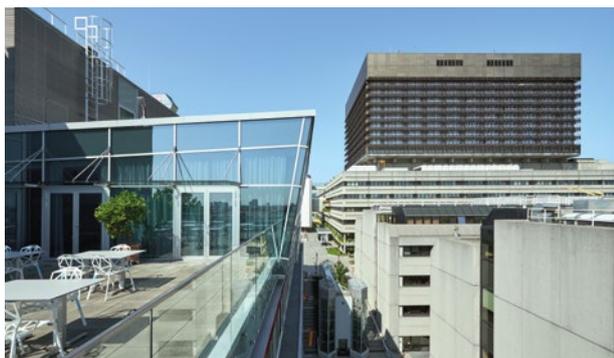
The Vienna Center for Rare and Undiagnosed Diseases is internationally renowned for the treatment of orphan diseases. The platform was set up to pool resources and competencies to provide patients with the best possible interdisciplinary diagnostic analysis and care. This involves maintaining strong ties to CeMM, the Research Center for Molecular Medicine of the Austrian Academy of Sciences.

Support for pediatric clinical trials

Austria's OKIDS network serves as a central contact point for sponsors of clinical trials on medicines for children. OKIDS consists of a pool of experienced universities and hospitals such as the St. Anna Kinderspital, the largest pediatric oncology center in Austria. OKIDS is part of the European Network of Pediatric Research at EMA and acts as Austria's national hub at the pan-European clinical trial network conect4children.

Precision medicine on the rise

Medicine today aims to provide patients with more targeted treatments through molecular characterization. Vienna strives to be at the forefront of this development. Cutting-edge research projects such as those funded through the Vienna Science and Technology Fund's Precision Medicine Call recently laid the basis for improving diagnostic, prognostic, and therapeutic approaches to medicine. The Austrian Federal Ministry of Education, Science,



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Medical University of Vienna

and Research will invest 75 million euros from the European Resilience and Recovery Facility in a new Center for Precision Medicine.

Key figures at a glance

The Austrian Federal Office for Safety in Health Care reported that 273 applications for clinical trials of medicines in Austria were filed in 2020 – 39 of them in phase I, 82 in phase II, 126 in phase III and 26 in phase IV. Industry sponsors 74% of these trials while 76% are multinational. In addition, 93 initial application submissions

for the clinical investigation of medical devices and the performance evaluation of IVDs were reported. A commercial sponsor has been found for 52% of these. The studies can be assigned to the following categories: nine on active implantable medical devices, eleven on class I medical devices, 16 on class IIa, 19 on class IIb, 20 on class III medical devices and a further 18 studies focus on IVDs. Up to 60% of these studies involved products which had obtained a CE mark.

Industry-sponsored studies

The Association of the Austrian Pharmaceutical Industry (Pharmig) reported on 484 industry-sponsored clinical trials involving 4,473 patients that were initiated, ongoing or completed in 2019. In addition, 76 noninterventional studies were conducted on 3,316 patients. Sale figures data provided by Pharmig members has been used to calculate that they make up 79% of market coverage. Most of the studies focus on cancer, cardiology, metabolic diseases, neurologic disorders, pulmonology, and vaccinology.

Connect to know-how in Vienna

Medical University of Vienna – Clinical Trials Coordination Center

kks@meduniwien.ac.at | www.meduniwien.ac.at/kks

Vienna Hospital Association – Clinical Research Center

office.CRC@wienkav.at | www.wienkav.at

Austrian Breast & Colorectal Cancer Study Group (ABCSCG)

info@abscsg.at | www.abscsg.at

OKIDS Network – Medicines for Children

office@okids-net.at | www.okids-net.at

Vienna Center for Rare and Undiagnosed Diseases (CeRUD)

cerud@meduniwien.ac.at | <http://cerud.meduniwien.ac.at>

Vienna Cancer Center (VCC)

christoph.zielinski@meduniwien.ac.at | www.vienna-cancer-center.at

Vinzenz Gruppe – Clinical Trials Coordination

elisabeth.fitzthum@vinzenzgruppe.at | www.vinzenzgruppe.at

Contribution to handling COVID-19

The Austrian Federal Government and the City of Vienna have been investing in research, development and innovation that contribute to handling of the pandemic. Vienna's life science community has mobilized its scientific power to do its part to overcome the crisis together with peers from around the globe.

To encourage and speed up projects relevant to coping with the pandemic, the Austrian Federal Government and the City of Vienna quickly launched special support schemes to complement international funds. These include:

- aws Investment Bonus
- FFG Emergency Call for Research into COVID-19
- FWF Urgent Funding SARS-CoV-2
- Medical Scientific Fund of the Mayor of Vienna
- Vienna Business Agency: Innovate4Vienna Program
- WWTF COVID-19 Rapid Response Funding

Such funds facilitated the acquisition of urgently needed knowledge for developing lifesaving products and services. Numerous scientists at institutions such as BOKU, the Medical University and the Vienna BioCenter are actively engaged in this endeavor.

Research reagents, detection and diagnostics

In addition to large, international diagnostics giants, small and medium-sized operations in Vienna are also developing and manufacturing helpful testing systems for use in research laboratories or in routine diagnostics. Here are a few examples:

- Attoquant Diagnostics
- Eucodis Bioscience
- Ingenetix
- Lexogen
- TAmiRNA
- Technoclone
- ViennaLab Diagnostics



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Medicines and their components

Thanks to a concerted effort made by academia, industry, regulatory agencies and policy makers, several top-quality vaccines have entered the market with unprecedented speed and their roll-out is ongoing. Further vaccines and potential therapeutically active substances are being developed around the world and medicines that are currently on the market are being tested for effectiveness against COVID-19. In Vienna, several companies are participating in these efforts, including:

- Apeiron Biologics
- Apeptico
- Biomay
- BlueSky Immunotherapies
- Cebina
- F4 Pharma
- G.ST Antivirals
- Marinomed Biotech
- Valneva
- Viravaxx

This list is not exhaustive. Additional information is available at www.LISAVienna.at.



EUR 200.000,-

aws Preseed

Financing the pre-seed phase

EUR 800.000,-

aws Seedfinancing

Financing the start-up phase
of lifescience companies

We bring
Life Sciences
to Life



Grow your bioeconomy network at the heart of Europe

Biology-driven know-how including industrial biotechnology and emerging fields that cross boundaries between scientific disciplines hold much promise for delivering the EU Green Deal and to address climate change. Topics include environmentally friendly and efficient biomanufacturing, new solutions for challenges linked to growing metropolises, and innovations for agriculture and nutrition, or fashion and textiles.

The bioeconomy is an integral part of a future circular economy and helps us deal with environmental crises and climate change. Reach out to LISAvienna's partners to strengthen your network in the region. Start thinking outside the box and collaborate with new sectors.

Bioeconomy Austria

Bioeconomy Austria is Austria's central coordination and capacity building platform for bioeconomy issues. It boosts green growth and facilitates collaboration between sectors that have operated largely independently of each other in the past, including agriculture, research, industry and regulatory agencies. This is a prerequisite for the strategic development and implementation of urgently needed solutions.

<https://www.bioeconomy-austria.at/>

Sustainable technologies cluster Vienna

The Vienna Business Agency's sustainable technologies team facilitates access to Vienna's expertise in the field. Companies receive support for the planning and implementation of innovative projects in areas such as energy, green buildings, urban mobility, logistics, nutrition, and social innovations. <https://viennabusinessagency.at/technology/lets-talk-innovation/sustainable-technologies/>

BOKU Centre for Bioeconomy

BOKU serves as Austria's link to the European Bioeconomy University Alliance, EBU, and has set up a special Centre for Bioeconomy. This unit facilitates knowledge transfer and provides access to the university's experts. More than 80% of the institutes carry out research and training in relevant fields. <https://boku.ac.at/en/zentrum-fuer-biooekonomie>



Museums and Volksgarten in Vienna

Digital health on the rise

Software is a cornerstone of modern healthcare and the number of companies focusing on software as a medical device in Vienna has tripled in just six years. A broad range of market niches is addressed – artificial intelligence-based solutions for diagnosis, reduce the workload of medical doctors and nurses, increase patients’ compliance with medication, and help training mind and body.

Digitalization is a trend that can be observed in all industries, including the pharmaceutical and medical device sector. The latest technologies now make it possible to use virtual reality training tools to optimize drug manufacturing processes or to customize and control high tech prostheses with a smartphone. App stores are brimming with fitness and health apps, and digitalization has already fundamentally changed the daily routines in healthcare organizations. Only a rather small part of the software is certified as a medical device and must comply with the respective regulatory framework. MDR, GDPR and ISO standards have been put in place to ensure that top quality products are delivered, and that the software doesn’t do any harm but brings about significant benefits for its users.

Software as a medical device

In Vienna, start-ups and SMEs developing digital health solutions are either technology-driven uni-

versity spin-offs or start out trying to solve highly specific problems. Interfaces between IT and research areas including imaging, materials science, biotechnology, psychology, and communication science hold a lot of potential and are being looked at by companies in the region such as:

- Contextflow
- Medicus.ai
- myMind
- mySugr / Roche
- Image Biopsy Lab
- Piur Imaging
- Scarletred
- XUND

For additional examples please see Tab. 18, p. 77-78.

Partnering is key for success

Developing game-changing digital health software calls for close collaboration with its users and complying with challenging regulatory requirements. Such innovation processes are costly and there is a high risk of failure. Public funds facilitate the first steps, but additional funds need to be raised.

Investors join in

Although most private equity investments and licensing deals or M&A activities in Vienna relate to drug development, agreements focusing on digital health solutions including crowdfunding campaigns are emerging. This probably reflects a change of perception by investors, with them becoming unsure of their chances to make a profit and by major partners in the healthcare sector feeling the pressure of expectations to provide professional digital health solutions. The formation of a new industry association in Austria signals another step in the community’s maturation.

Growing number of digital health companies in Vienna

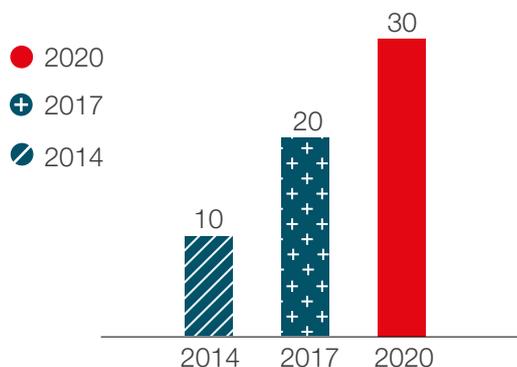


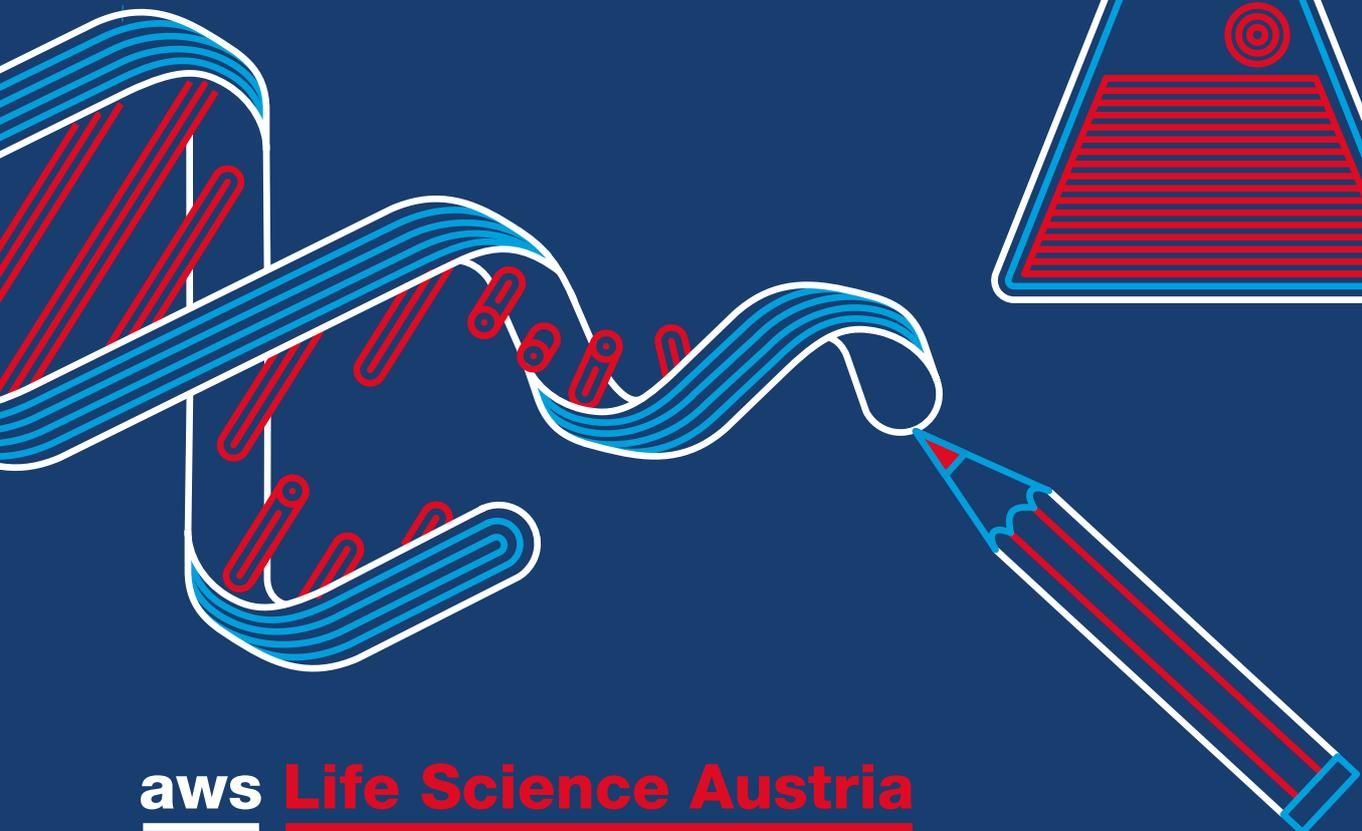
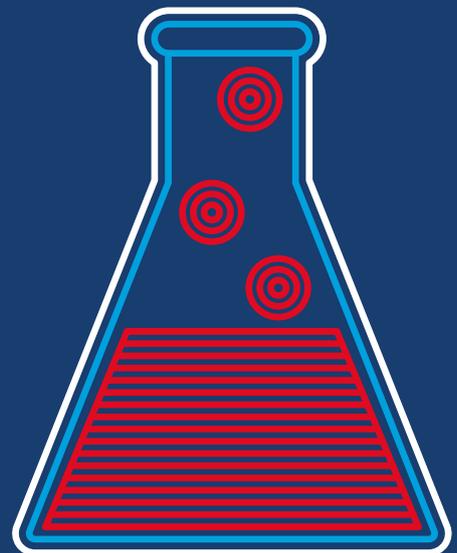
Fig. 14: Digital health companies in Vienna



A detailed analysis of
nation-wide data is
provided in the

**Life Science Report
Austria 2021**

www.lifescienceaustria.at



aws Life Science Austria

Life Science Report Austria 2021

Methodology

Survey and definitions

Company survey

The life science industry in Vienna is fully diversified with companies active in the field of biotechnology and pharma as well as in medical technology. In addition, there are around 290 related companies, such as consultants, patent experts, and cluster agencies. For the purposes of this survey, BIOCOM AG focused on the biotech/pharma and medical device field and compiled questionnaires for each sector. The related companies are only included in the directory.

For biotech/pharma, the survey was based on definitions outlined by the Organisation for Economic Co-operation and Development (OECD) in 2004. Here, the OECD standardized the huge range of existing definitions for the term biotechnology. Since then, all OECD countries have been called upon to carry out surveys on biotechnology following the so-called Framework for Biotechnology Statistics (www.oecd.org). Two different categories of companies have been established based on this definitions: ‘dedicated biotechnology companies’ and ‘other biotech active companies’ (for definitions see page 48). In addition, also pharma companies without biotech activities were included in the survey. These three categories are summarized as “research, development or manufacturing companies”.

With regard to the clinical pipeline of the dedicated biotech companies, special care was taken in this survey to represent the core development activities

– especially in the early clinical development when a wide range of drug candidates are tested in different indications and formulations. For this reason, the report does not include all R&D projects, but focuses on the number of active compounds the company has in clinical trials.

There are two challenges when implementing a survey in the medical device sector: Firstly, the field is extremely diverse in terms of content with the range of products covering everything from latex gloves to CAT scanners. Secondly, due to the high innovation rate, new and above all innovative products are continually being added. At licensing level, the term ‘medical device’ applies as specified in EU regulation 2017/745 and 2017/746. The EU regulations control medical devices, accessories, in vitro diagnostic medical devices and custom-made devices.

The Global Medical Device Nomenclature (GMDN) was introduced in November 2001 to better illustrate the different facets of medical technology in international comparison. GMDN is adjusted on an ongoing basis and at the end of 2020 contained 14 main categories with almost 9,000 terms and over 10,000 synonyms for medical devices (see page 49). The nomenclature was adjusted for the survey. One category (supplementary equipment) was deleted and two new ones were added: ‘software for medicine, telemedicine and e-health’ and ‘others’.

Total	requested/answered	response rate
Biotech/pharma and medical device companies	511/115	22.5%
Research, development or manufacturing biotech/pharma companies	139/58	41.7%
Research, development or manufacturing medical device companies	65/10	15.4%
Supply/service/sales companies in both sectors	307/47	15.3%

Table 9: Response rate of different types of life science companies

In addition, suppliers, service providers, and sales companies covering the sector were also addressed within the scope of the study. The following definitions have been used for the questionnaire:

- Supplier: manufacturer of products which are directly used in the manufacture of biotech/pharma/medtech products.
- Service provider: company with specific services which are necessary for the manufacture of biotech/pharma/medical device products.
- Sales and distribution company: company that sells or distributes approved biotech/pharma/medtech products.

Between April and June 2021, a total of 511 companies were contacted and requested to complete the survey. The companies were asked about their activities, employees, turnover, R&D expenditure and financing. The reference date of the survey was December 31, 2020. 115 companies an-

Academic survey

BIOCOM AG also conducted a national research survey based on the life science-related fields of the science and technology definitions outlined by the Organisation for Economic Cooperation and Development (OECD) in 2004 (see page 50). Based on the national data, key figures for Vienna have been extracted.

Between April and June 2021, a total of 18 Vienna-based research institutions were contacted and requested to complete the survey. The reference date of the survey was December 31, 2020. Thirteen Vienna-based institutions agreed to participate (response rate: 72.2%). They have been asked to provide the following key figures for life sciences:

- Employees: Headcount, % female, % researchers
- Articles published in peer reviewed journals in 2020
- Total budget for life sciences in 2020
- Number of students in the life sciences
- Third-party funds spent on life sciences

swered either by questionnaire or by telephone, corresponding to a response rate of 22.5% (for more detailed information see Tab. 9).

Based on common statistical practice, the data from the survey was extrapolated up to 100% on the basis of subgroups with structurally comparable companies. As needed, further information such as from annual reports, webpages or other publicly available sources has been added. While selecting companies to participate, extreme care was taken to include all enterprises which are resident in Vienna and which are active in life sciences. Therefore, companies that are majority-owned from outside Austria but have a company office in Vienna were also considered. In surveying the employee figures (headcount), number of companies and fields of activity, the survey included only the Vienna location of a company. If an enterprise had more than one location in Austria, only cumulated figures and data for the company as a whole were considered.

Not all data sets were complete. No extrapolations of data were carried out because of the given characteristics of the research and education institutes. These do not allow to construct subgroups with structurally comparable institutions for extrapolations. As needed, further information such as from annual reports or other publicly available sources like the Intellectual Capital Reports has been added.



Definitions biotech/pharma

› **Biotechnology**

... is defined as the application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods, and services.

› **A dedicated biotechnology company**

... is defined as a biotechnology active firm whose predominant activity involves the application of biotechnology techniques to produce goods or services and/or the performance of biotechnology R&D.

› **Other biotechnology active companies**

... include all types of companies that may employ biotechnological techniques to produce goods or services, but that also have non-biotechnological business areas. In addition, the category includes all types of pharma firms whatever their business model is (chemically synthesized or biopharmaceutical drugs for human or veterinary use).

› **A pharma company**

... is defined as a company whose predominant activity relates to the development and/or manufacturing of drugs without applying biotechnological methods.

› **Research, development or manufacturing biotechnology/pharma companies**

... are either dedicated or other biotechnology active or a pharma companies. In each category, subsidiaries of the companies whose purpose is not only the distribution of the products, but also the preparation and monitoring of clinical trials, are included.

Definition of biotechnology/pharma and the type of firms categorized for the use of this study

› **Health/Medicine**

Development of therapeutics and/or diagnostics for the field of human medicine, drug delivery, human tissue replacement

› **Animal health**

As above, for veterinary application

› **Agrobiotechnology**

Genetically modified plants, animals or microorganisms, as well as non-genetically modified plants grown using biotechnological procedures, for use in agriculture or forestry

› **Industrial biotechnology**

Biotechnological products and processes for the handling of waste or sewage, for chemical synthesis, for the extraction of raw materials and energy etc.

› **Non-specific services**

Equipment or reagents based on biotechnological principles, for research or provision of services in this field ("ancillary industry")

Definition of the fields of activity of biotechnology companies

Definitions medical devices

› Medical device

... is defined as the sum of activities related to the development, manufacturing, sales and distribution of medical products or the offer of services as defined through the Global Medical Device Nomenclature (GMDN).

› A dedicated medical device company

... is defined as a medical device company whose predominant activity relates to the development and/or manufacturing of medical products as defined through the Global Medical Device Nomenclature (GMDN).

› Other medical device companies

... include all types of companies that may develop and/or manufacture medical products as defined through the Global Medical Device Nomenclature (GMDN), but that also have non-medical technology business areas.

› Research, development or manufacturing medical device companies

... are either a dedicated or an other medical device companies.

Definition of medical devices and the type of firms categorized for the use of this study

Code	Explanation	Examples
01	Active implantable devices	Cardiac pacemakers, neurostimulators
02	Anesthetic and respiratory devices	Oxygen masks, ventilators for anesthesia, gas supply units
03	Dental devices	Dental equipment, fillings
04	Electromechanical medical devices	ECG, EEG, sonography machines, lasers
05	Hospital hardware	Hospital beds
06	In-vitro diagnostic devices	Pregnancy test, blood sugar tests, genetic tests
07	Non-active implantable devices	Hip and knee joints, arterial stents
08	Ophthalmic and optical devices	Spectacles, contact lenses, ophthalmoscopes
09	Reusable devices	Surgical instruments, endoscopes, blood pressure cuffs, stethoscopes, skin electrodes
10	Single-use devices	Syringes, needles, latex gloves, balloon catheters
11	Assistive products for persons with disability	Wheelchairs, walking aids, hearing aids
12	Diagnostic and therapeutic radiation devices	X-ray equipment, CT, radiotherapy equipment
13	Biological-derived devices	Substitute tissue, products of regenerative medicine
14	Software for medicine, telemedicine and e-health	
15	Others	

Table 10: Overview of the fields of activity based on the Global Medical Device Nomenclature (GMDN).

Sciences and Technologies	Examples
1. Natural Sciences	
Computer sciences	<ul style="list-style-type: none"> › Bioinformatics
Biological sciences	<ul style="list-style-type: none"> › Cell biology, microbiology; virology; biochemistry and molecular biology; biochemical research methods; mycology; biophysics › Genetics and heredity (medical genetics to be 3); reproductive biology (medical aspects to be 3); developmental biology › Plant sciences, botany › Zoology, ornithology, entomology, behavioural sciences biology › Marine biology, freshwater biology, limnology; ecology; biodiversity conservation › Biology (theoretical, mathematical, thermal, cryobiology, biological rhythm), evolutionary biology; other biological topics
2. Engineering and Technology	
Medical engineering	<ul style="list-style-type: none"> › Medical engineering; medical laboratory technology (including laboratory samples analysis; diagnostic technologies) ...
Environmental biotechnology	<ul style="list-style-type: none"> › Environmental biotechnology; bioremediation, diagnostic biotechnologies (DNA chips and biosensing devices) in environmental management; environmental biotechnology related ethics
Industrial biotechnology	<ul style="list-style-type: none"> › Industrial biotechnology; bioprocessing technologies (industrial processes relying on biological agents to drive the process) biocatalysis, fermentation; bioproducts (products that are manufactured using biological material as feedstock) biomaterials, bioplastics, biofuels, bio-derived bulk and fine chemicals, bio-derived novel materials
3. Medical and Health Sciences	
Basic medicine	<ul style="list-style-type: none"> › Anatomy and morphology; human genetics; immunology; neurosciences (including psychophysiology); pharmacology and pharmacy; medicinal chemistry; toxicology; physiology (including cytology); pathology
Clinical medicine	<ul style="list-style-type: none"> › Andrology; obstetrics and gynaecology; paediatrics; cardiac and cardiovascular systems; peripheral vascular disease; Hematology; respiratory systems; critical care medicine and emergency medicine; anaesthesiology; orthopaedics; surgery; radiology, nuclear medicine and medical imaging; transplantation; dentistry, oral surgery and medicine; dermatology and venereal diseases; allergy; rheumatology; endocrinology and metabolism (including diabetes, hormones); gastroenterology and hepatology; Urology and nephrology; oncology; ophthalmology; otorhinolaryngology; psychiatry; clinical neurology; geriatrics and gerontology; general and internal medicine; other clinical medicine subjects; Integrative and complementary medicine (alternative practice systems)

Sciences and Technologies	Examples
Health medicine	<ul style="list-style-type: none"> › Health care sciences and services (including hospital administration, health care financing); health policy and services › Nursing; nutrition, dietetics › Public and environmental health; tropical medicine; parasitology; infectious diseases; epidemiology › Occupational health; sport and fitness science › Social biomedical sciences (includes family planning, sexual health, psycho-oncology, political and social effects of biomedical research); medical ethics; substance abuse
Medical biotechnology	<ul style="list-style-type: none"> › Health-related biotechnology; technologies involving the manipulation of cells, tissues, organs or the whole organism (assisted reproduction); technologies involving identifying the functioning of DNA, proteins and enzymes and how they influence the onset of disease and maintenance of well-being (gene-based diagnostics and therapeutic interventions (pharmacogenomics, gene-based therapeutics); biomaterials (as related to medical implants, devices, sensors); medical biotechnology related ethics
Other medical sciences	<ul style="list-style-type: none"> › Forensic sciences › Other medical sciences
4. Agricultural Sciences	
Veterinary science	<ul style="list-style-type: none"> › Veterinary medicine
Agricultural biotechnology	<ul style="list-style-type: none"> › Agricultural biotechnology and food biotechnology; GM technology (crops and livestock), livestock cloning, marker assisted selection, diagnostics (DNA chips and biosensing devices for the early/accurate detection of diseases) biomass feedstock production technologies, biopharming; agricultural biotechnology related ethics

Table 11: Relevant fields of science and technology according to the OECD Frascati Manual

References

To complement the characterization of Vienna's life science sector, several key documents are referred to throughout the report and have been analyzed in addition to the survey.

Data for previous years and nationwide comparison

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Life science data Austria 2020: Life Science Report Austria 2021, published by Austria Wirtschaftsservice GmbH (aws), available online at www.lifescienceaustria.at as of **October 2021**

Executive summary

Tourism in Vienna: hotels pass billion euro revenue threshold for first time in 2019: online available at <https://b2b.wien.info/en/press-media-services/bilanz2019-341360>; last accessed on **September 14, 2021**

Key ingredients for success

Strategy "Vienna 2030 – Economy & Innovation", online available at <https://www.wien.gv.at/english/business-media/vienna-2030.html>, last accessed on **August 26, 2021**

Rankings of global players

Pharm Exec's top 50 companies 2021: <https://www.pharmexec.com/view/2021-pharma-50>; last accessed on **August 24, 2021**

MD+DI & Qmed: Top 20 Medtech Companies in 2020: <https://www.mddionline.com/business/top-20-medtech-companies-2020>, last accessed on **August 24, 2021**

Clinical research

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produkten und Leistungsbewertungsprüfungen für In-Vitro-Diagnostika: Statistik 2020, online available at https://www.basg.gv.at/fileadmin/redakteure/06_Gesundheitsberufe/Klinische_Studien/MPG/BASG_CLTR_KP_MPG_Statistik_2021_DE_v2_2021-05-06.pdf, last accessed on **August 25, 2021**

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Annex

New life science companies in Vienna

Founded in	Company		Founded in	Company	
2018	Ablevia biotech GmbH	●	2019	G.ST Antivirals GmbH	●
2018	Aelian Biotechnology GmbH	●	2019	Novasign GmbH	+
2018	AVVie GmbH	●	2019	P&F CARDIOVASCULAR GmbH	●
2018	Cebina GmbH	+	2019	P4 Therapeutics GmbH	●
2018	F2G Biotech GmbH	●	2019	Pivaris BioScience GmbH	●
2018	Insulet Austria GmbH	●	2019	Pregenerate GmbH	●
2018	LIVIN farms AgriFood GmbH	●	2019	QUANTRO Therapeutics GmbH	●
2018	MyMind GmbH	●	2019	reha buddy GmbH	●
2018	OrphaCare GmbH	●	2019	VBTCG Consulting GmbH	+
2018	Phenaris GmbH	+	2020	ALGONIST Biotechnologies GmbH	●
2018	REPULS PDI GmbH	●	2020	BIT BIO Discovery GmbH	●
2018	Ribbon Biolabs GmbH	●	2020	Disinfect Plus GmbH	●
2018	Takeda Manufacturing Austria AG	●	2020	Hygiene Austria LP GmbH	●
2018	Thoeris GmbH	●	2020	Hypericum LifeScience GmbH	●
2018	UpNano GmbH	●	2020	LEAD Horizon GmbH	●
2018	usePAT GmbH	●	2020	Lellis GmbH	●
2018	XUND Solutions GmbH	●	2020	LifeScan Österreich GmbH	●
2019	a:head bio AG	●	2020	myReha GmbH	●
2019	AnYxis Immuno-Oncology GmbH	●	2020	Novid20 GmbH	●
2019	APEIRON Cell Therapies GmbH	●	2020	Proxygen GmbH	●
2019	CALYXHA Biotechnologies GmbH	●	2020	personaldoc gmbh	●
2019	Delta 4 GmbH	●	2020	THT BIOMATERIALS GmbH	●
2019	FemPulse GmbH	●	2020	Tridem Bioscience GmbH	●

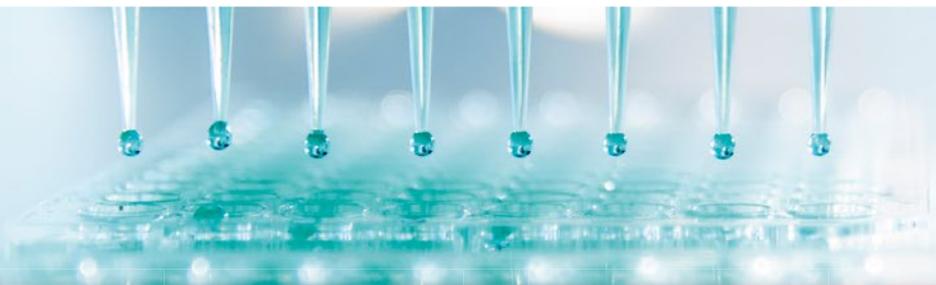
Research, development or manufacturing: ● biotech/pharma companies (25) ● medical device companies (11)

Sales, supplier, service provider: + biotech/pharma companies (5) ● medical device companies (5)

Table 12: Viennese life science companies founded in 2018, 2019 and 2020 – a total of 46 companies active by December 2020 are included. This list is not exhaustive.

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Biotech/pharma companies in Vienna

1 A Pharma GmbH	+	Aristo Pharma Österreich GmbH	+
a:head bio AG	●	Astellas Pharma Ges.m.b.H.	○
ab&cd innovations GmbH	●	AstraZeneca Österreich GmbH	⊗
Abbott GmbH	+	Astro-Pharma Vertrieb und Handel von pharmazeutischen Produkten GmbH	+
AbbVie GmbH	⊗	Attoquant Diagnostics GmbH	●
ABF Pharmaceutical Services GmbH	⊙	Austrianni GmbH	●
Ablevia biotech GmbH	●	BASF Österreich GmbH	⊗
Accanis Biotech F&E GmbH & Co KG	●	Baxter Healthcare GmbH	+
Acticell GmbH	●	Bayer Austria Gesellschaft .m.b.H	⊗
Aelian Biotechnology GmbH	●	Beckman Coulter GmbH	⊗
AFFiRiS AG	●	Bencard Allergie GmbH	+
AGEA Pharma GmbH	+	Bender MedSystems GmbH	⊗
Akribes Biomedical GmbH	●	Biogen Austria GmbH	⊗
ALBIS Plastic Vertriebsgesellschaft m.b.H.	⊗	Biomay AG	●
Alexion Pharma Austria GmbH	+	Biomedical International R+D GmbH	●
ALGONIST Biotechnologies GmbH	●	Biomedizinische Forschung & Bio-Produkte AG	●
AlgOss Biotechnologies GmbH	●	Bioplant R & D	●
Allcyte GmbH	●	BIOVENDOR GesmbH	+
Almirall GmbH	+	BIRD-C	●
AMGEN GMBH	⊗	BIT BIO Discovery GmbH	●
Amomed Pharma GmbH	+	BIUTEK – Forschungs- und Entwicklungsgesellschaft m.b.H.	⊙
Angelini Pharma Österreich GmbH	+	Bluefish Pharma GmbH	+
AnYxis Immuno-Oncology GmbH	●	BlueSky Immunotherapies GmbH	●
AOP Orphan Pharmaceuticals AG	⊗	Boehringer Ingelheim RCV GmbH & Co KG	⊗
APEIRON Biologics AG	●	Bracco Österreich GmbH	+
APEIRON Cell Therapies GmbH	●	Bristol-Myers Squibb GmbH	⊗
APEPTICO Forschung und Entwicklung GmbH	●	BS-Immun GmbH	●
Aposcience AG	●	CALYXHA Biotechnologies GmbH	●
Arcana Arzneimittel GmbH	+	CEBINA GmbH	⊙
ARCHIMED Life Science GmbH	⊙		
Ares Genetics GmbH	●		

Celerion Austria GmbH	⊕	EVER Pharma AT GmbH	⊕
Celgene GmbH	⊘	Evercyte GmbH	●
ChanPharm GmbH	⊕	Evologic Technologies GmbH	●
Chemengineering Austria GmbH	⊕	Examon Pharma HandelsgesmbH	⊕
Chiesi Pharmaceuticals GmbH	⊕	Exputec GmbH	⊕
CIS Clinical Investigation Support Pharmaforschung Gesellschaft m.b.H.	⊕	f-star Biotechnologische Forschungs- und Entwicklungsges.m.b.H.	●
Clinical Trials Management GmbH	⊕	F. Trenka Chem. pharm. Fabrik GmbH	⊕
COVIN Pharmavertriebs GmbH	⊕	F2G Biotech GmbH	●
CSL Behring GmbH	⊕	F4 Pharma GmbH	●
Currex Pharma GmbH	⊕	FAVEA Handel mit pharmazeutischer Technologie GmbH	⊘
CW-Research & Management GmbH	⊕	Ferring Arzneimittel Gesellschaft m.b.H.	⊕
D&A Pharma GmbH	⊕	first pharma J.M.T. GmbH	⊕
Daiichi Sankyo Austria GmbH	⊘	G.ST Antivirals GmbH	●
Datamedrix GmbH	⊕	Galderma Austria GmbH	⊕
Delta 4 GmbH	●	Germania Pharmazeutika GmbH	○
Dermapharm GmbH	⊕	Gilead Sciences GesmbH	⊘
DIPHA GmbH	○	Gilvasan Pharma GmbH	⊕
Dr. Falk Pharma Österreich GmbH	⊕	GlaxoSmithKline Pharma GmbH	⊘
Dr. Meng Pharma GmbH	⊘	GLOBOPHARM Pharmazeutische Produk- tions- und Handelsgesellschaft mbH	⊘
Dr. Muin Pharma GmbH	○	GSB Pharma GmbH	⊕
Eisai GesmbH	⊘	Guerbet Großhandel mit pharmazeutischen Produkten Ges.m.b.H.	⊕
Eli Lilly Gesellschaft m.b.H.	⊘	GYNCOM GmbH	⊕
Eli-Tec pharmazeutischer Großhandel Mag. Ernst Baurek GmbH	⊕	HAPLOGEN Bioscience GmbH	●
emergentec biodevelopment GmbH	●	Herba Chemosan Apotheker-AG	⊕
enGenes Biotech GmbH	●	Hexal Pharma GmbH	⊕
EUCODIS Bioscience GmbH	●	HG Pharma GmbH	●
Eurofins Genomics AT GmbH	●		
EveliQure Biotechnologies GmbH	●		

● dedicated biotech companies ⊘ biotech active companies ○ pharma companies
 ⊘ suppliers ⊕ service providers ⊕ sales companies

Annex

HL Dr. Hans Loibner Bioscience Research GmbH	●
Hookipa Biotech AG	●
Horizon Genomics GmbH	●
HSO Health Care GmbH	+
HVD Life Science Vertriebs GmbH	+
Hypericum LifeScience GmbH	●
ICON Clinical Research Austria GmbH	●
IMPROCESS GmbH	●
Incyte Biosciences Austria GmbH	+
InfectoPharm GmbH	+
ingenetix GmbH	●
Ingo Brandstetter Pharmagroßhandel GmbH	+
Intercept Pharma Austria GmbH	+
Interpharm ProduktionsgmbH	○
Intervet GesmbH	⊘
IQVIA Marktforschung GmbH	●
ISOtopic solutions e.U.	●
J&P Medical Research Ltd.	●
Janssen-Cilag Pharma GmbH	⊘
JLP Health GmbH	●
Jungbunzlauer Austria AG	⊘
Kasel GmbH	⊘
Kedrion International GmbH	+
KRKA Pharma GmbH	+
Kwizda Agro GmbH	⊘
Kwizda Pharma GmbH	○
Kwizda Pharmahandel GmbH	+
LABDIA Labordiagnostik GmbH	●
Lenus Pharma GesmbH	○
LEO Pharma GmbH	+
Lexogen GmbH	●
LifeNet Health Europe GmbH	+

LIVIN farms AgriFood GmbH	●
Lundbeck Austria GmbH	○
Marinomed Biotech AG	●
Mark53 GmbH	●
MC Toxicology Consulting GmbH	●
Medibena	⊘
Medicopharm GmbH	+
MedLance Pharma GmbH	+
Merck Chemicals and Life Science GesmbH	⊘
Merck GesmbH	+
Merck Sharp & Dohme Gesellschaft m.b.H.	⊘
Merz Consumer Care Austria GmbH	+
Merz Pharma Austria GmbH	+
Microsynth Austria GmbH	●
Miti Biosystems GmbH	●
MoNo chem-pharm Produkte GmbH	⊘
Mundipharma Gesellschaft m.b.H.	+
Myelopro Diagnostic and Research GmbH	●
Mylan Österreich GmbH	+
Nabriva Therapeutics GmbH	●
Nascyma Pharma GmbH	+
NBS-C BioScience & Consulting GmbH	●
Norgine Pharma GmbH	+
Novartis Pharma GmbH	⊘
Novasign GmbH	●
Novo Nordisk Pharma GmbH	⊘
Nuvonis Technologies GmbH	●
Blue Sky Vaccines	●
Octapharma Pharmazeutika Produktionsgesellschaft mbH	⊘
OKIDS GmbH	●
Origimm Biotechnology GmbH	●
ORION Pharma (Austria) GmbH	+

P4 Therapeutics GmbH	●	S-TARget therapeutics GmbH	●
Panoptes Pharma Ges.m.b.H.	●	S.MED Handels GmbH	⊕
Pfizer Corporation Austria GmbH	⊘	SAICO Biosystems KG	●
PhagoMed Biopharma GmbH	●	SANOFI-AVENTIS GmbH	⊘
Pharm-Allergan GmbH	⊕	Sanova Pharma GesmbH	⊕
Pharma Mar Ges.m.b.H.	⊕	Sartorius Austria GmbH	⊘
pharmacom Handels GmbH	⊕	Sartorius Stedim Austria GmbH	⊘
PHARMADROGA Großhandel GmbH	⊕	Schwabe Austria GmbH	○
Pharmaselect Handels GmbH	⊕	Servier Austria GmbH	○
PHARMOSAN Handelsgesellschaft m.b.H.	⊕	Siemens AG Österreich	●
Phenaris Softwareentwicklungs- und consulting GmbH	●	Sigmapharm Arzneimittel GmbH	○
PHOENIX Arzneiwarengroßhandlung GmbH	⊕	Sinapharm GmbH	⊕
PINT-PHARMA GesmbH	⊕	SPLIPHARM Arzneiwaren HandelsgmbH	⊕
Pivaris BioScience GmbH	●	STADA Arzneimittel GmbH	⊕
PLANTA Naturstoffe Vertriebsges.m.b.H.	●	Syconium Lactic Acid GmbH	●
Platomics GmbH	●	SynteractHCR Eastern Europe Forschungsgesellschaft mbH	●
Pregenerate GmbH	●	Takeda Manufacturing Austria AG	⊘
ProFem GmbH	○	Takeda Pharma GmbH	⊕
Proxygen GmbH	●	TAmiRNA GmbH	●
PTC Therapeutics Austria GmbH	⊕	Technoclone	●
QUANTRO Therapeutics GmbH	●	The Antibody Lab GmbH	●
ratiopharm Arzneimittel Vertriebs-GmbH	○	Thea Pharma GmbH	⊕
RD&C Research, Development & Consulting GmbH	●	Themis Bioscience GmbH	●
Reckitt Benckiser Austria GmbH	○	Thermo Fisher Diagnostics Austria GmbH	⊕
Ribbon Biolabs GmbH	●	Thoeris GmbH	●
Richard Bittner AG	○	THT BIOMATERIALS GmbH	●
Rieger Industrievertretungen GmbH	⊘	Tridem Bioscience GmbH	●
Roche Austria GmbH	⊘	Tube Pharmaceuticals GmbH	●
Roche Diagnostics GmbH	⊕	UCB Pharma GmbH	⊘
Roxall Medizin GmbH	⊕	UpNano GmbH	⊘
		usePAT GmbH	⊘

● dedicated biotech companies ⊘ biotech active companies ○ pharma companies
 ⊘ suppliers ● service providers ⊕ sales companies

Annex

Valneva Austria GmbH	●	Vivaldi Biosciences AG	●
VBTCG Consulting GmbH	⊙	VOGELBUSCH Biocommodities GmbH	⊙
VelaLabs GmbH	●	VOGELBUSCH Biopharma GmbH	⊙
Vertex Pharmaceuticals GmbH	⊕	VWR International GmbH	⊙
VIDIPHARM GmbH	●	Wabosan Arzneimittelvertriebs GmbH	⊕
ViennaChallengeChamber	⊙	X4 Pharmaceuticals	●
ViennaLab Diagnostics GmbH	●	YASARA Biosciences GmbH	●
Vifor Pharma Österreich AG	⊕	ZAK-Pharma Dienstleistung Ges.m.b.H.	⊙
Viravaxx AG	●	Zentrum für klinische Studien Dr. Hanusch GmbH	⊙
Virusure GmbH	●	Zoetis Österreich GmbH	⊕
Vita 34 Gesellschaft für Zelltransplantate m.b.H.	●	Zytoprotec GmbH	●

● dedicated biotech companies ⊙ biotech active companies ○ pharma companies
 ⊙ suppliers ⊙ service providers ⊕ sales companies

Table 13: List of biotech/pharma companies in Vienna

Medical device companies in Vienna

3M Österreich GmbH	+	Beiersdorf Gesellschaft m.b.H.	+
42.cx Center of Excellence for Artificial Intelligence GmbH	⊘	Bertmann Ges.m.b.H.	⊘
4myHealth GmbH	●	Besurence GmbH	●
A. Duschek GmbH	+	BIMED Dr. Karner Spitalbedarfs GmbH	+
A. Menarini GmbH	+	Bio-Klima-Institut Gesellschaft m.b.H.	+
Abbott Medical Austria Ges.m.b.H	+	biolitec AG	●
ACETO Medizinische Informationssysteme GmbH & Co.KG	●	BIOMEDICA Medizinprodukte GmbH	+
Achim Schulz-Lauterbach Vertrieb medizinischer Produkte Ges.m.b.H.	+	bioMérieux Austria GmbH	+
Alcon Ophthalmika GmbH	+	Biotest Austria GmbH	+
Allectric GmbH	●	Biotronik Vertriebs-GmbH	+
Allergopharma Vertriebsges. mbH	+	Bloom Diagnostics GmbH	●
alps:health Medical Solutions GmbH	●	BMS Informationstechnologie GmbH	⊘
amacord GmbH	+	Bosch + Sohn GmbH u. Co. KG	+
AME International GmbH	⊙	Boston Scientific GmbH	+
Amiola Medical Devices e.U.	+	Braincon GmbH & Co KG	●
Arjo Austria GmbH	+	BSTÄNDIG VERBANDSTOFFFABRIK GmbH	+
Askin & Co. GmbH	+	Cardinal Health Austria 504 GmbH	+
Asprion Augenprothetik, Nikolaus Kerbl e.U.	●	Care Pi Health Innovation Services GmbH	⊙
Assista Laborelectronics GmbH	+	CareDx GmbH	+
Assistocor GmbH	●	CareTec International GmbH	⊘
Atomed HandelsgmbH	+	Carl Reiner GmbH	●
AVVie GmbH	●	Carl Zeiss GmbH	⊘
Balmung Medical Handel GmbH	+	CCORE Technology GmbH	●
Bauerfeind GmbH	+	Chateau Natal GmbH	●
Bausch & Lomb Ges.mbH	+	Chemische Fabrik Dr. Weigert Handelsgesellschaft m.b.H.	⊘
Baxter Medical Products GmbH	●	Chemomedia Medizintechnik und Arzneimittel Vertriebsges.m.b.H.	+
Becton Dickinson Austria GmbH	+	Cherry Med Medical Solutions GmbH	+
		CLIMED Medizinische Produkte GmbH	+

● dedicated medical device companies ⊘ companies active in medical devices
 ⊘ suppliers ⊙ service providers + sales companies

Annex

Clinical Standard GmbH	+
CogVis Software und Consulting GmbH	+
Coloplast Ges.m.b.H	+
CompuGroup Medical CEE GmbH	+
contextflow GmbH	●
ConvaTec (Austria) GmbH	+
Cook Österreich GmbH	+
Coopetition Med GmbH	+
Crosstec GmbH	+
Cubicure GmbH	+
CVTec Cerebrovascular Technologies GmbH	●
D.A.T.A. Corporation Softwareentwicklungs- GmbH	●
Dahlhausen GmbH	+
Dedalus HealthCare Ges.m.b.H.	●
Dentsply Sirona Austria GmbH	+
Derma Medical Systems Handels- und Entwicklungs GmbH	●
Dia-Chrom Handelsgesellschaft m.b.H.	+
Diagnosia Internetservices GmbH	+
DiaSorin Austria GmbH	+
Dipl. Ing. Frühwald & Söhne GmbH & Co KG	+
Disinfect Plus GmbH	+
Dr. A. & L. Schmidgall GmbH & Co KG	+
Dr. Grossegger & Drbal GmbH	●
Dr. Schuhfried Medizintechnik GmbH	●
Dräger Austria GmbH	+
Edwards Lifesciences Austria GmbH	+
Ekomed Handels-Ges.m.b.H	+
EMTensor GmbH	●
en.co.tec Schmid KG	+

Erbe Elektromedizin Ges.m.b.H.	+
Eumedics Medizintechnik Handels- und Marketingges.m.b.H.	+
Euromed Distribution GmbH	+
Ewald Baumgartner Feinoptik G.m.b.H.	+
Exeltis Austria GmbH	+
F. Schmidl & Co GmbH	●
FemPulse GmbH	●
Ferdinand Menzl Medizintechnik GmbH	+
Fisher & Paykel Healthcare GmbH	+
Fresenius Medical Care Austria GmbH	+
Fuji Film Österreich Gesellschaft m.b.H. Nfg. KG	+
GE Healthcare Handels GmbH	+
Gepa-Med Medizintechnik GmbH	+
Gerhard Pejcl Medizintechnik Handels GmbH	+
GETINGE Österreich GmbH	+
GN Hearing Austria GmbH	+
GSMTM Medizintechnik und Telemedizin GmbH	+
Gynial GmbH	+
Haemonetics Handelsgesellschaft mbH	+
HappyMed GmbH	+
Hellmut Habel Gesellschaft m.b.H.	+
Henry Schein Dental Austria GmbH	+
Henry Schein Medical Austria GmbH	+
HO-MED Handelsgesellschaft m.b.H.	+
HOLLISTER GmbH	+
Hologic Austria GmbH	+
Hospitec Warenhandelsgesellschaft m.b.H.	+
Hygiene Austria LP GmbH	+
IB Lab GmbH	●
ICT Innovation in Clinical Trials GmbH	●

Ing. Fritz Kern Gesellschaft m.b.H.	🔗
Ing. Sumetzberger GmbH	🔗
Innovative Diagnostics Vertriebsges.m.b.H.	+
INOVAMET Vertriebs GmbH	+
Insulet Austria GmbH	+
INTRAMED Handels Ges.m.b.H.	+
Ivoclar Vivadent GmbH	+
JEDER GmbH	●
Johnson & Johnson Medical Products GmbH	+
K.I.S Krankenhaus Informations-Systeme GmbH	●
Karl Storz Endoskop Austria GmbH	+
KCI Austria GmbH	+
Krainer Medtechnik Handelsgesellschaft mbH	+
Kulzer Austria GmbH	+
Kybermed Handelsgesellschaft mbH	+
Lab Technologies Medizintechnik GmbH	+
Laser-Gruppe-Materialbearbeitungs- GesmbH	🔗
LEAD Horizon GmbH	●
Lellis GmbH	●
LifeScan Österreich GmbH	+
Lima Austria GmbH	+
Lithoz GmbH	🔗
LivaNova Austria GmbH	+
LKB Vertriebs-Gesellschaft m.b.H.	+
M+W Dental Handels GmbH	+
MacroArray Diagnostics GmbH	●
Masimo Österreich GmbH	+
MCW Handelsgesellschaft m.b.H.	🔗

mdc medical device certification GmbH	🔗
med-lab GmbH	+
Medbee GmbH	●
MedCom Medizinische Software-erstellung- und VertriebsgmbH	🔗
Medexter Healthcare GmbH	●
Medichron Institut für Diagnostik und Therapie chronischer Erkrankungen GmbH	+
Medicus AI GmbH	●
Medifina Medizinprodukte Vertriebs-GmbH	●
medikus Vertriebs GmbH	+
Medix GmbH	+
medizinbedarf.at - PH Palden GmbH	+
Medline Austria GmbH	+
Medline Medizintechnik GmbH	+
Medmobile GmbH	+
Medos Medizintechnik OG	+
Medtronic Österreich GmbH	+
Memocorby Systems GmbH	●
Michael Hauser Medizintechnik	+
MIN Medical Innovation Network GmbH	+
Mitsubishi Tanabe Pharma GmbH	+
Mölnlycke Health Care GmbH	+
MorphoMed GmbH	●
MR Medical Handels GmbH	+
MSP Medizintechnik GmbH	+
MTG Medizinisch Technische Geräte Erzeugungs- und Vertriebsgesellschaft mbH	+
Müller medizinische Labormeißtechnik-geräte Handelsgesellschaft m.b.H.	+
Multisana medizinisch-technische Geräte Handelsgesellschaft m.b.H.	+

● dedicated medical device companies 🔗 companies active in medical devices
 🔗 suppliers 🔗 service providers + sales companies

Annex

MyMind GmbH	●	Polytech Domilens GmbH	⊕
myReha GmbH	●	Posthorax GmbH	⊕
mySugr GmbH	●	reha buddy GmbH	●
NEURODATA Handels-GmbH	⊕	Remesco HandelsgesmbH	⊕
NewMedX Medizinprodukte Vertriebs- und Consulting GmbH	⊕	REPULS Lichtmedizintechnik GmbH	●
Nobel Biocare (Österreich) GmbH	⊕	REPULS PDI GmbH	●
Norma Diagnostika GmbH	●	Richard Wolf Austria GmbH	⊕
Novid20 GmbH	⊙	Roche Diabetes Care Austria GmbH	⊕
Novomed Handelsgesellschaft mbH	⊕	Rosner GmbH - Medizintechnik	⊕
nstim Services GmbH	●	Rudolf Heintel Gesellschaft m.b.H.	⊕
Nuance Communications Austria GmbH	⊕	Rüsch Austria Gesellschaft mbH	⊕
Olympus Austria GmbH	⊕	SALESIANER MIETTEX GmbH	⊙
One Globe Biotechnology GmbH	⊕	SAMA Medizintechnik e.U.	⊙
Ordibed GmbH	⊕	SANAG HEALTHCARE GmbH	⊕
OrphaCare GmbH	●	SCARLETRED Holding GmbH	●
Ortho-Clinical Diagnostics GmbH	⊕	Schmidt Laborgeräte - Gerd Jürgen Melmuka	⊘
ORTHOMED Medizintechnik GmbH	⊕	Schülke & Mayr Gesellschaft m.b.H.	⊘
Orthorobot Medizintechnik GmbH	●	Semperit Technische Produkte G.m.b.H.	⊘
Otto Bock Healthcare Products GmbH	●	SER Solutions Österreich GmbH	⊘
OVARTEC GmbH	●	SIC invent Austria GmbH	⊕
OXYCARE Medizintechnik GmbH	⊕	SICO Pharma GmbH	⊕
P&F CARDIOVASCULAR GmbH	●	Siemens Healthcare Diagnostics GmbH	⊕
P+F Products + Features GmbH	●	Sigvaris, medizinische Kompressions- strümpfe Gesellschaft mbH	⊕
personaldoc gmbh	●	SIMCharacters GmbH	⊙
Pharma Consult Ges.m.b.H.	●	SIMStation GmbH	●
Philips Austria GmbH	⊕	Spine-Med Ges.m.b.H.	⊕
Photonic Optische Geräte GmbH & Co. KG	⊘	Stago Österreich GmbH	⊕
piur imaging GmbH	●	Stefan Limbeck, Alleininhaber Richard Limbeck e.U.	⊕
PKP Handelsges.m.b.H.	⊕	Stemcup Medical Products Austria GmbH	⊕
planer dentaprise GmbH	⊕		
Pohlig Austria GmbH & Co KG	●		

STINA Medical Solutions GmbH	●	VAMED Management und Service GmbH	●
Stryker Austria GmbH	+	VISTA MEDICAL Medizintechnik GmbH	+
SUN MED Medizintechnische Produkte GmbH	+	VIVISOL Heimbehandlungsgeräte GmbH	●
Sysmex Austria GmbH	+	Wagner & Munz GmbH	+
SzeleSTIM GmbH	●	Websinger GmbH	●
tec4life Medizintechnik GmbH	+	well.tecs Medical Services & Equipment GmbH	+
The Siesta Group Schlafanalyse GmbH	●	Werfen GmbH	+
THP Medical Products Vertriebs-GmbH	+	XUND Solutions GmbH	●
TissueGnostics GmbH	●	Ze.Wa. medicalsystems GmbH Nfg. KG	+
Trauma Care Consult	●	Zimmer Biomet Austria GmbH	+
TWO PI Signal Processing Applications GmbH	●	Zoll Medical Österreich GmbH	+

- dedicated medical device companies ● companies active in medical devices
 ● suppliers ● service providers + sales companies

Table 14: List of medical device companies in Vienna

Research and education & other organizations in Vienna

AIT Austrian Institute of Technology GmbH	🔗	Austrian Association of Molecular Life Sciences and Biotechnology	+
Austrian Breast & Colorectal Cancer Study Group	🔗	Austrian Business Agency	+
CeMM – Research Center for Molecular Medicine	🔗	Austrian Council for Research and Technology Development	+
Gregor Mendel Institute of Molecular Plant Biology (GMI)	🔗	Austrian Federal Office for Food Safety	+
IMBA - Institute of Molecular Biotechnology	🔗	Austrian Federal Office for Safety in Health Care	+
Ludwig Boltzmann Gesellschaft (LBG)	🔗	Austrian Research Promotion Agency (FFG)	+
Max Perutz Labs	🔗	Austrian Society for Allergology and Immunology	+
Medical University of Vienna	●	Austrian Society of Dermatology and Venereology	+
Österreichisches Forschungsinstitut für Chemie und Technik (OFI)	🔗	Austrian Society of Tropical Medicine, Parasitology and Migration Medicine	+
Research Institute of Molecular Pathology (IMP)	🔗	Austrian Standards Institute	+
St. Anna Kinderkrebsforschung GmbH	🔗	AUSTROMED	+
TU Wien	●	Berufsverband Österreichischer Chirurgen	+
University of Applied Sciences FH Campus Wien	🚫	Biosimilarsverband Österreich	+
University of Applied Sciences Technikum Wien	🚫	BIOTECH AUSTRIA, Biotechnologie-Industrie-Organisation Austria	+
University of Natural Resources and Life Sciences, Vienna	●	CECOG – Central European Cooperative Oncology Group	+
University of Veterinary Medicine, Vienna	●	CESAR Central European Society for Anticancer Drug Research – EWIV	+
University of Vienna	●	Christian Doppler Forschungsgesellschaft	+
VRVis Zentrum für Virtual Reality und Visualisierung Forschungs-GmbH	🔗	DEXHELPP	+
AGES - Austrian Agency for Health and Food Safety	+	Die Johanniter-Unfall-Hilfe Österreich	+
Association of the Austrian Chemical Industry – FCIO	+	EQ-BOKU-VIBT-GMBH (EQ-GMBH)	+
Austria Wirtschaftsservice (aws)	+	European Institute for Biomedical Imaging Research / EIBIR	+
Austrian Academy of Sciences	+	European Society of Radiology	+
		FEEI – Fachverband der Elektro- und Elektronikindustrie	+

FOPI – Forum der forschenden pharmazeutischen Industrie	+	Österreichische Gesellschaft für Qualitätssicherung und Standardisierung medizinisch-diagnostischer Untersuchungen	+
Gesellschaft der Ärzte in Wien (GDAE)	+	Österreichische Gesellschaft für Radioonkologie, Radiobiologie und Medizinische Radiophysik	+
Gesellschaft für Pharmazeutische Medizin	+	Österreichische Gesellschaft für Urologie und Andrologie	+
Gesellschaft Österreichischer Chemiker	+	Österreichische Plattform für Personalisierte Medizin	+
Gesundheit Österreich GmbH	+	Österreichische Röntgengesellschaft, Gesellschaft für Medizinische Radiologie und Nuklearmedizin	+
ICC – International Association for Cereal Science & Technology	+	Österreichischer Generikaverband	+
IGEPHA – The Austrian Self Care Association	+	Österreichischer Pharma Cercle	+
INITS	+	Österreichischer Verband der Impfstoffhersteller	+
Universitäres Gründerservice Wien GmbH	+	Open Science	+
IPF Institut für pharmaökonomische Forschung GmbH	+	Pharma Marketing Club Austria	+
LISAvienna – Life Science Austria Vienna	+	PHARMIG – Verband der pharmazeutischen Industrie Österreichs	+
Österreichische Gesellschaft für Chirurgie	+	Umweltbundesamt – Environment Agency Austria	+
Österreichische Gesellschaft für Gastroenterologie und Hepatologie	+	Verein Österreichischer Lebensmittel- und Biotechnologen	+
Österreichische Gesellschaft für Gynäkologie und Geburtshilfe	+	Vienna BioCenter	+
Österreichische Gesellschaft für Hals-, Nasen- und Ohrenheilkunde, Kopf- und Halschirurgie	+	Vienna Business Agency	+
Österreichische Gesellschaft für Laboratoriumsmedizin und Klinische Chemie	+	Vienna Science and Technology Fund (WWTF)	+
Österreichische Gesellschaft für Neurologie	+	VOMI – Vienna Open Medical Institute	+
Österreichische Gesellschaft für Nuklearmedizin und Molekulare Bildgebung	+	VSCR – Vienna School of Clinical Research, Public Health and Medical Education GmbH	+
Österreichische Gesellschaft für Orthopädie und orthopädische Chirurgie	+	wings4innovation GmbH	+
Österreichische Gesellschaft für Plastische, Ästhetische und Rekonstruktive Chirurgie	+	Wirtschaftskammer Wien	+
Österreichische Gesellschaft für Pneumologie	+		

● universities
 ● universities of applied sciences
● non-university research organizations
 + other organizations

Table 15: List of research and education & other organizations in Vienna

Equity investments and other financing deals

Date	Company	Details	€ million
Equity investment volume 2018–2020 (excl. investments with undisclosed financial details)			915.39
Investment volume 2018 (excl. investments with undisclosed financial details)			231.10
Q1/2018	CogVis GmbH	Private equity	0.7
Q1/2018	contextflow GmbH	Venture capital	not disclosed
Q1/2018	Themis Bioscience GmbH	Venture capital	10.00
Q1/2018	Themis Bioscience GmbH	CEPI investment	31.90
Q2/2018	MacroArray Diagnostics	H2020 EIC SME Instrument	2.50
Q3/2018	ab&cd innovations GmbH	Private equity	not disclosed
Q3/2018	Nabriva Therapeutics AG	Public offering	42.50
Q3/2018	PhagoMed Biopharma GmbH	Public grants and private investments	4.00
Q3/2018	Valneva SE	Private placement	50.00
Q4/2018	F2G Biotech GmbH	EIB financing	24.00
Q4/2018	ImageBiopsy Lab	Venture Capital	not disclosed
Q4/2018	Nabriva Therapeutics AG	Loan from Hercules Capital	63.8
Q4/2018	SCARLETRED Holding GmbH	Crowdfunding	0.6
Q4/2018	TAmiRNA GmbH	H2020 IMI2 grant	1.20
Investment volume 2019 (excl. investments with undisclosed financial details)			398.46
Q1/2019	HOOKIPA Pharma	Venture Capital	33.30
Q1/2019	Marinomed Biotech AG	IPO	22.40
Q1/2019	Marinomed Biotech AG	EIB financing	5.00
Q1/2019	Medicus AI	Venture Capital	15.00
Q2/2019	HOOKIPA Pharma	Loan from EIB	74.80
Q2/2019	PhagoMed Biopharma GmbH	Venture Capital	1.50
Q2/2019	Themis Bioscience GmbH	CEPI investment	18.70
Q2/2019	X4 Pharmaceuticals	Public offering	76.40
Q3/2019	EveliQure GmbH	H2020 grant	8.60
Q3/2019	Evologic GmbH	H2020 grant	2.40
Q3/2019	Platomics GmbH	PE investment	not disclosed
Q3/2019	SzeleSTIM GmbH	H2020 grant	2.20

Date	Company	Details	€ million
Q3/2019	Themis Bioscience GmbH	Venture capital	40.00
Q3/2019	Valneva SE	CEPI investment	20.80
Q4/2019	contextflow GmbH	Venture capital	not disclosed
Q4/2019	EveliQure GmbH	Wellcome Trust grant	0.59
Q4/2019	Medicus AI GmbH	Venture Capital	1.20
Q4/2019	Nabriva Therapeutics GmbH	Capital increase	17.80
Q4/2019	usePAT GmbH	Venture capital	not disclosed
Q4/2019	X4 Pharmaceuticals	Public offering	57.85
Investment volume 2020 (excl. investments with undisclosed financial details)			285.80
Q1/2020	CALYXHA GmbH	Venture capital	not disclosed
Q1/2020	PIUR imaging GmbH	Crowdfunding	0.50
Q1/2020	SzeleSTIM GmbH	Crowdfunding	0.30
Q1/2020	Valneva SE	Healthcare Funds Investment	74.80
Q1/2020	XUND Solutions GmbH	Business angels investment	not disclosed
Q2/2020	APEIRON Biologics AG	Venture capital	17.50
Q2/2020	APEPTICO GmbH	H2020 grant	1.60
Q2/2020	CEBINA GmbH	Private investment	not disclosed
Q2/2020	contextflow GmbH	Venture capital	not disclosed
Q2/2020	contextflow GmbH	H2020 grant, EIC	1.20
Q2/2020	EveliQure GmbH	Private investment	0.44
Q2/2020	Nabriva Therapeutics	US government financing (NIAID)	18.10
Q3/2020	F2G Biotech GmbH	Venture capital	53.50
Q3/2020	Biome Diagnostics GmbH	Investment and aws COVID-19 grant	not disclosed
Q4/2020	Carl Reiner GmbH	"Stolz auf Wien" investment	not disclosed
Q4/2020	HOOKIPA Pharma	Public Offering	71.20
Q4/2020	Nabriva Therapeutics AG	Public Offering	13.20
Q4/2020	usePAT GmbH	Business angel investment	not disclosed

Table 16: Investments in Viennese life science companies in 2018, 2019 and 2020

Licensing, M&A activities and additional agreements

Date	Company	Details
Q1/2018	Nabriva Therapeutics GmbH	Licensing agreement with Roivant Sciences/Sinovant Sciences worth up to \$95 million
Q1/2018	Nuvonis Technologies GmbH	Partnership agreement with BIA Separations
Q2/2018	APEIRON Biologics AG	In-licensing of a new checkpoint inhibitor from IMBA, ÖAW and MedUni Vienna
Q2/2018	Arsanis Biosciences GmbH (now X4 Pharmaceuticals Austria GmbH)	Out-licensing agreements with Bravos Biosciences
Q2/2018	Biomay AG	Collaboration with BIA Separations
Q2/2018	HOOKIPA Pharma	Collaboration and licensing agreement with Gilead, total potential deal volume: €400 million
Q2/2018	Lexogen GmbH	Partnership with Bluebee
Q2/2018	mySugr GmbH / Roche AG	Partnership with Care Innovations
Q3/2018	APEIRON Biologics AG	Collaboration with Lead Discovery Center
Q3/2018	Boehringer Ingelheim RCV GmbH & Co KG	Acquisition of ViraTherapeutics
Q3/2018	Nabriva Therapeutics GmbH	Acquisition of Zavante Therapeutics for up to \$105.7 million
Q4/2018	Ares Genetics GmbH	Strategic collaboration agreement with Sandoz
Q4/2018	Biomedica Medizinprodukte GmbH	Acquisition by AddLife for €39 million
Q4/2018	HOOKIPA Pharma	Research collaboration and license agreement with DarwinHealth
Q4/2018	mySugr GmbH / Roche AG	Collaboration with Novo Nordisk
Q4/2018	Themis Bioscience GmbH	Exclusive licensing agreement with Max-Planck-Innovation
Q4/2018	Valneva SE and Hookipa Biotech AG	Collaboration and manufacturing agreement

Date	Company	Details
Q1/2019	123 Sonography GmbH	Acquisition of SonoWorld Website from Inteleos
Q1/2019	AOP Orphan Pharmaceuticals AG	Partnership with Chord Therapeutics
Q1/2019	Ares Genetics GmbH	Partnership with QIAGEN
Q1/2019	Arsanis Biosciences GmbH (now X4 Pharmaceuticals Austria GmbH)	Completion of merger with X4 Pharmaceuticals
Q1/2019	Marinomed Biotech AG	Strategic partnership with Link Health Pharma, upfront payment of €3 million
Q1/2019	Rudolf Heintel Medizintechnik	Acquisition of Odelga Med
Q1/2019	Takeda Pharmaceutical Company Limited	Completion of acquisition of Shire
Q1/2019	Valneva SE	\$59 million supply contract with US Government
Q2/2019	VelaLabs GmbH	Acquisition of Laboratorium für Betriebshygiene
Q2/2019	Valneva SE	End of GSK Strategic alliance, regain control of R&D
Q3/2019	Themis Bioscience GmbH	Agreement with MSD: MSD will provide research funding and make an equity investment
Q3/2019	X4 Pharmaceuticals Austria GmbH	Development and commercialization agreement with Abbisko Therapeutics
Q4/2019	a:head bio AG	License and collaboration agreements with IMBA
Q4/2019	APEPTICO GmbH	Framework Agreement with Haisco Pharmaceutical Group
Q4/2019	Diagnosia Internetservices GmbH	APOVERLAG becomes majority shareholder
Q4/2019	Virusure GmbH	Acquisition by Asahi Kasei Medical
Q1/2020	Aelian Biotechnology GmbH	License agreement with ERS Genomics
Q1/2020	ARCHIMED Life Science GmbH	amedes Holding acquires a majority stake

Annex

Date	Company	Details
Q1/2020	Themis Bioscience GmbH	Collaboration with Institut Pasteur and University of Pittsburgh, CEPI to provide initial \$4.9 million for consortium
Q1/2020	Valneva SE	\$70 million supply contract with US Government
Q2/2020	Agfa HealthCare Ges.m.b.H.	Acquisition of healthcare IT business by Dedalus Group
Q2/2020	Allcyte GmbH	Strategic partnership with Fidelis
Q2/2020	G.ST Antivirals GmbH	Collaboration with Takeda
Q2/2020	Lexogen GmbH	Partnership with OnRamp Bioinformatics
Q2/2020	Themis Bioscience GmbH	Collaboration with ABL Europe
Q2/2020	Themis Bioscience GmbH	MSD completes acquisition
Q2/2020	Valneva SE	Development collaboration with Dynavax
Q2/2020	Valneva SE	Development and Commercialization agreement with Pfizer involving up to \$308 million cash payment payment
Q2/2020	Valneva SE	Development, manufacturing and marketing agreement with Instituto Butantan
Q2/2020	Valneva SE	R&D collaboration with Batavia Biosciences
Q2/2020	Valneva SE	Marketing and distribution partnership with Bavarian Nordic
Q3/2020	APEIRON Biologics AG	Clinical and commercial licensing agreement with MaxCyte
Q3/2020	IB Lab GmbH	Partnership with Siemens Healthineers
Q3/2020	Nabriva Therapeutics GmbH	Commercialization and distribution agreement with Merck & Co. Inc.
Q3/2020	Valneva SE	Supply Contract with the US Government worth up to \$166 million
Q3/2020	Valneva SE	Partnership with U.K. Government worth up to almost €900 million
Q3/2020	Valneva SE	Commercial supply agreement with Dynavax
Q3/2020	ViennaLab Diagnostics GmbH	Company fully joins BioVendor Group
Q4/2020	AOP Orphan Pharmaceuticals AG	Acquisition of Amomed and SciPharm

Date	Company	Details
Q4/2020	APEIRON Biologics AG	Expansion of partnership with Domainex
Q4/2020	Boehringer Ingelheim RCV GmbH & Co KG / Proxygen GmbH	Collaboration agreement
Q4/2020	IB Lab GmbH	Partnership with GE Healthcare
Q4/2020	P+F Products + Features GmbH	Distribution and manufacturing agreement with OrbusNeich® Medical
Q4/2020	Panoptes Pharma Ges.m.b.H.	Acquisition by EyeGate Pharma

Table 17: Licensing deals, mergers and acquisitions (M&A) and additional agreements of life science companies in Vienna in 2018, 2019 and 2020. Disclosed deal volumes sum up to about 2.3 billion euros. However, no financial details were published for most of the agreements.

Focus of dedicated medical device companies in Vienna

● Area of activity	Active implantable devices	Anesthetic and respiratory devices	Assistive products for persons with disability	Biological derived devices	Dental devices	Diagnostic and therapeutic radiation devices	Electromechanical medical devices	Hospital hardware	In-vitro diagnostic devices	Non-active implantable devices	Ophthalmic and optical devices	Reusable devices	Single-use devices	Software for medicine, telemedicine and e-health	Medical devices in the context of COVID-19	Other
4myHealth GmbH														●		
ACETO Medizinische Informationssysteme GmbH & Co.KG														●		
Asprion Augenprothetik, Nikolaus Kerbl e.U.											●					
Assistocor GmbH	●	●														
NEW: AVVie GmbH	●									●						
Baxter Medical Products GmbH				●								●	●			
Besurence GmbH									●							
biolitec AG						●										
Bloom Diagnostics GmbH														●		
Braincon GmbH & Co KG			●							●				●	●	
Carl Reiner GmbH		●										●	●	●	●	
CCORE Technology GmbH													●			
Chateau Natal GmbH															●	
contextflow GmbH														●	●	
CVTec Cerebrovascular Technologies GmbH														●		
D.A.T.A. Corp. Softwareentwicklungs GmbH														●		
Dedalus HealthCare Ges.m.b.H.								●						●		●
Derma Medical Systems							●							●		
Dr. Grossegger & Drbal GmbH																●
Dr. Schuhfried Medizintechnik GmbH			●				●	●					●			

● Area of activity	Active implantable devices	Anesthetic and respiratory devices	Assistive products for persons with disability	Biological derived devices	Dental devices	Diagnostic and therapeutic radiation devices	Electromechanical medical devices	Hospital hardware	In-vitro diagnostic devices	Non-active implantable devices	Ophthalmic and optical devices	Reusable devices	Single-use devices	Software for medicine, telemedicine and e-health	Medical devices in the context of COVID-19	Other
EMTensor GmbH							●									
F. Schmidl & Co GmbH			●													
NEW: FemPulse GmbH	●															
IB Lab GmbH														●		
ICT Innovation in Clinical Trials GmbH														●		
JEDER GmbH					●						●	●				
K.I.S Krankenhaus Informations Systeme GmbH								●						●		
NEW: LEAD Horizon GmbH									●						●	
NEW: Lellis GmbH														●		
MacroArray Diagnostics GmbH									●					●		
Medbee GmbH														●		
Medexter Healthcare GmbH														●		
Medicus AI GmbH														●	●	
Medifina Medizinprodukte Vertriebs-GmbH														●		
Memocorby Systems GmbH														●		
MorphoMed GmbH				●						●						●
NEW: MyMind GmbH														●		
NEW: myReha GmbH														●		
mySugr GmbH														●		
Norma Diagnostika GmbH									●							

● Area of activity	Active implantable devices	Anesthetic and respiratory devices	Assistive products for persons with disability	Biological derived devices	Dental devices	Diagnostic and therapeutic radiation devices	Electromechanical medical devices	Hospital hardware	In-vitro diagnostic devices	Non-active implantable devices	Ophthalmic and optical devices	Reusable devices	Single-use devices	Software for medicine, telemedicine and e-health	Medical devices in the context of COVID-19	Other
nstim Services GmbH	●															
NEW: OrphaCare GmbH												●				
Orthorobot Medizintechnik GmbH					●											
Otto Bock Healthcare Products GmbH	●		●											●		
Ovartec GmbH													●			
NEW: P&F CARDIOVASCULAR GmbH	●															
P&F Products and Features GmbH										●						
NEW: personaldoc gmbh														●		
Pharma Consult Ges.m.b.H.																●
piur imaging GmbH						●										
Pohlig Austria GmbH										●						
NEW: reha buddy GmbH														●		
REPULS Lichtmedizintechnik GmbH							●									
NEW: REPULS PDI GmbH						●										
SCARLETRED Holding GmbH			●										●	●	●	
SIMStation GmbH														●		●
SzeleSTIM GmbH							●							●		
Tiani Spirit GmbH														●		
TissueGnostics GmbH									●					●		
VIVISOL Heimbehandlungsgeräte GmbH		●														
Websinger GmbH												●	●		●	

Table 18: Overview of the fields of activity of dedicated medical device companies based on the Global Medical Device Nomenclature (GMDN); “NEW” marks companies founded in 2018, 2019 or 2020.



Focus of dedicated medical biotech companies in Vienna

	Blood & the immune system	Circulatory system	Digestive system	Endocrine & metabolic dis.	Eye and the ear	Genitourinary system	Infectious diseases	Musculoskeletal system	Neoplasms	Nervous system	Respiratory system	Skin & subcutaneous tissue
M Market approval 3 Phase III 2 Phase II 1 Phase I ● Area of activity + Diagnostics												
NEW: a:head bio AG										●		
NEW: Ablevia biotech GmbH	●							●		●		
Accanis Biotech F&E GmbH & Co KG												●
AFFiRiS AG		●		●						1		
Akribes Biomedical GmbH												●
NEW: Algonist Biotechnologies GmbH										●		
Allcyte GmbH	●								●			
NEW: AnYxis Immuno-Oncology GmbH									●			
APEIRON Biologics AG	●								M,2,1		2	
NEW: APEIRON Cell Therapies GmbH	●						●			●	●	
APEPTICO Forschung und Entwicklung GmbH				2			2-3				2-3	
Aposcience AG				2								●
Ares Genetics GmbH							●					
Attoquant Diagnostics GmbH		+										
Austrianni GmbH							●					
Bio-Products & Bio-Engineering Aktiengesellschaft	●							●			●	●
Biomay AG	●	●	●	●	●	●	●	●	●	●	●	●
Biomedical International R+D GmbH									●		●	
Biomedizinische Forschungsgesellschaft m.b.H.	●						2					
BIRD-C GmbH & Co. KG			●				●					●
NEW: BIT BIO Discovery GmbH									●	●		
BlueSky Immunotherapies GmbH							1		●			
NEW: CALYXHA Biotechnologies GmbH												●
NEW: Delta 4 GmbH						●	●				●	
EveliQure Biotechnologies GmbH			●				1					

	Blood & the immune system	Circulatory system	Digestive system	Endocrine & metabolic dis.	Eye and the ear	Genitourinary system	Infectious diseases	Musculoskeletal system	Neoplasms	Nervous system	Respiratory system	Skin & subcutaneous tissue
M Market approval 3 Phase III 2 Phase II 1 Phase I ● Area of activity ⊕ Diagnostics												
F-star GmbH									2,1			
NEW: F2G Biotech GmbH							2					
F4 Pharma GmbH		●					2				●	
NEW: G.ST Antivirals GmbH							●				●	
Haplogen GmbH				●								
HG Pharma GmbH	●	●	●	●		●			●	●		●
HOOKIPA Pharma							2		1			
NEW: HYPERICUM LifeScience GmbH									●			
Labdia Labordiagnostik GmbH							⊕		⊕			
Marinomed Biotech AG	●		●	2	●		M				M	
Mark53 GmbH									●			
Miti Biosystems GmbH	●						●					●
Myelopro Diagnostic and Research GmbH									⊕			
NABRIVA Therapeutics AG			●		●	●	M	●			●	●
NBS-C BioScience & Consulting GmbH	⊕						⊕		⊕			
Origimm Biotechnology GmbH							●					●
NEW: P4 Therapeutics GmbH									●			
Panoptes Pharma Ges.m.b.H.					2,1		●					
PhagoMed Biopharma GmbH						●	●					
NEW: Pivaris BioScience GmbH						●	●					
Planta Naturstoffe Vertriebsges.m.b.H.									●			
NEW: Proxygen GmbH	●		●	●		●			●	●	●	
NEW: QUANTRO Therapeutics GmbH									●			
S-TARget therapeutics GmbH											●	
TAmiRNA GmbH		●		●				●				

Annex

	Blood & the immune system	Circulatory system	Digestive system	Endocrine & metabolic dis.	Eye and the ear	Genitourinary system	Infectious diseases	Musculoskeletal system	Neoplasms	Nervous system	Respiratory system	Skin & subcutaneous tissue
Technoclone GmbH	+	+										
The Antibody Lab GmbH	+						+					
Themis Bioscience GmbH							2,1					
NEW: THT Biomaterials GmbH				●					●	●		●
NEW: Tridem Bioscience GmbH										●		
Tube Pharmaceuticals GmbH									●			
Valneva SE							M,M, 3,2,1					
VelaLabs GmbH	+			+					+			
ViennaLab Diagnostics GmbH	+	+	+	+		+		+				+
Viravaxx AG							2					
Vivaldi Biosciences AG							2					
X4 Pharmaceuticals							●				●	
Zytoprotec GmbH						2						

Table 19: Focus of dedicated medical biotech companies in 2020 (indications according to the ICD-10 classification scheme); “NEW” marks companies founded in 2018, 2019 or 2020.

Focus of dedicated non-medical biotech companies in Vienna

● Area of activity	Agricultural biotechnology	Bioinformatics	Industrial biotechnology	Non-specific applications
ab&cd innovations GmbH			●	
Acticell GmbH			●	
NEW: Aelian Biotechnology GmbH				●
Bioplant R & D	●			
emergentec biodevelopment GmbH		●		
enGenes Biotech GmbH			●	
EUCODIS Bioscience GmbH			●	
Eurofins Genomics AT GmbH				●
Evercyte GmbH				●
Evologic Technologies GmbH	●			
Horizon Genomics GmbH				●
ingenetix GmbH				●
Lexogen GmbH				●
NEW: LIVIN farms AgriFood GmbH	●			
Microsynth Austria GmbH				●
Platomics GmbH		●		
NEW: Pregenerate GmbH		●		
NEW: Ribbon Biolabs GmbH		●		
SAICO Biosystems KG				●
Syconium Lactic Acid GmbH			●	
NEW: Thoreris GmbH				●
YASARA Biosciences GmbH		●		

Table 20: Focus of dedicated non-medical biotech companies in 2020. “NEW” marks companies founded in 2018, 2019 or 2020.

Imprint

This report is based on data obtained through the evaluation of a written survey among Austria's life science companies carried out by BIOCOM AG, Vienna in close cooperation with austria wirtschafts-service and LISAvienna in 2021. For more information please refer to page 45 ff. The editorial staff comprises Felix Klatt and Simone Ding (BIOCOM) as well as Philipp Hainzl, Johannes Sarx and Brigitte Tempelmaier (LISAvienna). The layout was designed by Benjamin Röbig and Martina Willnow (BIOCOM). We thank all companies, research and education institutions and other organizations supporting this survey! The layout, graphics and other contents of this brochure of the Viennese life science cluster are protected by copyright law.

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