

SHAPING THE FUTURE,
TOGETHER

JOANNEUM
RESEARCH 

Annual Report 2022

JOANNEUM RESEARCH

**We live multidisciplinary,
diversity and agility in our research
and we are shaping the future,
together.**

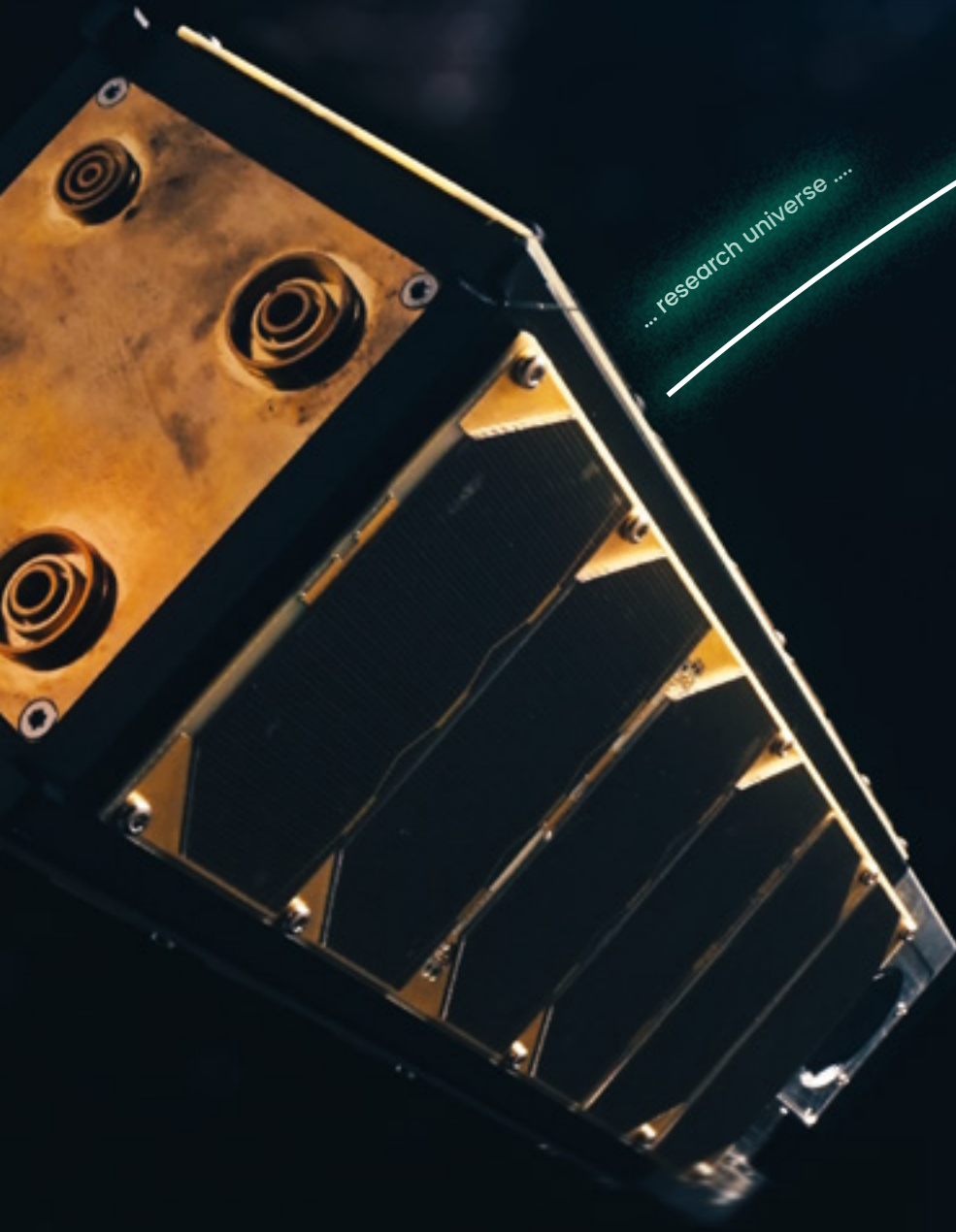
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Follow the spark and explore our



VIEW FROM ABOVE:
The CubeSat orbits at about
500 km above the Earth and
sends signals in the W band.

... research universe ...



Viable ideas for a better Europe and a green world. Our research spark has flown between qubits and outer space.



© SalonDeluxe

»»JOANNEUM RESEARCH is in a very good starting position and looks back on an exciting and successful financial 2022.«

DR HEINZ MAYER

The research spark of JOANNEUM RESEARCH is spreading worldwide and marks the milestones of our innovative power and research achievements. They make Europe and our world more innovative, greener and more digital.

In 2022 a new spark also ignited within our business and I am very proud to announce our new business strategy for the next five years, which is the result of a broad strategy development process that was closely coordinated with the company's owners and stakeholders and based on the missions of the European Union.

For the new business strategy we have chosen a completely new approach, a very lean strategy document and a detailed development plan derived therefrom, which is broken down into annual research programmes. The overall strategy document defines the strategic goals for the fields of action, the development plan contains the process of implementation of the strategic goals in the research units. The specific annual research programmes are the result.

Together we want to make something good even better. The company's new vision is themed

„Shaping the Future, together“. As a research company of the Austrian states and regions we want to develop new technologies for and together with businesses and explore the interactions of those technologies with the environment and with society. We want the JOANNEUM RESEARCH brand to be inseparably connected with those goals. JOANNEUM RESEARCH is in a very good starting position and looks back on a quite successful financial 2022.

The transition from Horizon 2020 to Horizon Europe was mastered perfectly. In addition, we managed

6

Locations in Austria

approx. EUR

49

million research output in 2022

approx.

500

staff



to successfully establish this company within the European Defence Fund (EDF).

In future we will, on the one hand, focus on becoming even more active in the Austrian regions and states where JOANNEUM RESEARCH operates already, i.e. in Styria, Carinthia and Burgenland. On the

other hand, JOANNEUM RESEARCH will continue to be an important key player of the international research community at the European level.

Major focuses are placed on the fields of green transformation, e.g. closed-loop economy and digitalisation. Health and care are and will remain important topics for the

future. I look forward to the implementation of our strategy, many new approaches and joint research projects.

Across the Austrian states JOANNEUM RESEARCH demonstrates leadership when it comes to innovations for the future.



© Rothwangl

In Styria JOANNEUM RESEARCH is an important motor that drives innovations for the future and, for example, supports our businesses in their digital and green transformation. Moreover, it is the lighthouse for the Southern Business and Research Axis across different Austrian states. I am convinced that under the leadership of Heinz Mayer and through implementation of the new pioneering development plan our research company will perform well and continue on its path of success.

BARBARA EIBINGER-MIEDL,
MEMBER OF THE GOVERNMENT OF
THE STATE OF STYRIA FOR
ECONOMY, TOURISM, REGIONS,
SCIENCE AND RESEARCH



© Rauchenwald

The year 2022 was characterised by the strategic reorientation of JOANNEUM RESEARCH. The key words green, resilient and digital, which guide the development of current and future topics, are also decisive points of reference for social and political action. In 2022 the course for a further expansion of JOANNEUM RESEARCH Carinthia was set: by establishing a Digital Twin Lab in addition to ROBOTICS, LIFE and POLICIES, also the experts of DIGITAL will take their know-how to Lake Wörth and bring new impulses to the research state of Carinthia.

DR GABY SCHAUNIG,
DEPUTY GOVERNOR OF THE
STATE OF CARINTHIA



The State of Burgenland has a clear goal: increasing its research share with a focus on performance and results. We are implementing numerous initiatives to establish the State of Burgenland as a location that supports innovation. The investment in JOANNEUM RESEARCH is an important piece of the puzzle. Particularly in times of uncertainty innovations are important to sustainably secure jobs in the region. After all, research and development are the foundations of technological change, lead to economic growth and make the location more attractive to businesses. I am pleased to say that we have further intensified the positive cooperation with JOANNEUM RESEARCH. I would like to say a big thank you to all members of staff and the management.

DR LEONHARD SCHNEEMANN,
MEMBER OF THE GOVERNMENT OF
THE STATE OF BURGENLAND FOR
RESEARCH MATTERS



QUANTUM TECHNOLOGY

In their field of integrated optics, researchers at MATERIALS are key players in quantum research in Austria.



In an integrated, comprehensive process that has been agreed with the stakeholders JOANNEUM RESEARCH has given itself a new business strategy for the next five years. The supervisory board contributed actively to this process, with the end result being a document architecture which defines ambitious, strategic goals in the fields of action for the next few years. I am convinced that the business model will secure the company's competitiveness for the future through agility and resilience. Research and innovation are the only way to promote the location and to develop solutions for the burning issues of the future. I wish JOANNEUM RESEARCH every success in implementing its goals.

DR MARTIN WIEDENBAUER,
CHAIRMAN OF THE SUPERVISORY BOARD



Despite the ongoing crises and the war in Ukraine JOANNEUM RESEARCH looks back on a very successful financial 2022. In addition to the scientific and business activities in Austria and abroad, another focus was on developing the new business strategy for the years 2023 to 2027. The comprehensive strategy process was successfully completed by the end of the financial year. Thanks to the strategy documents, which are now available, the continuing development of JOANNEUM RESEARCH as an innovation driver in Southern Austria is secured and I look forward to our joint implementation of the projects and goals which have been defined.

PROF. DR GERALD SCHÖPFER,
CHAIRMAN OF THE SCIENTIFIC ADVISORY BOARD

Between Qubits and Outer Space

Researchers at the locations in Styria work on a broad spectrum. Scientific excellence and application-oriented research is what they all have in common. Here are two examples:

Outer space. Styria looks back on a long-standing tradition of space research; as early as in the 1980s Styrian researchers participated in the Austromir Mission. Today Styrian experts still develop effective solutions and space technologies for the future. At JOANNEUM RESEARCH alone, 40 people work in space research in about 50 projects of a volume of approximately EUR 3 million.

In 2022 some of those efforts were rewarded with success: a team from the DIGITAL research group in the area of telecommunications, navigation and signal processing made a pioneering achievement: for the first time satellite signals were received in the W band at 75 GHz from a height of 500 kilometres. They are constantly sent by the W CubeSat, which has been orbiting the Earth since 2021. Our goal is to gain new knowledge about atmospheric attenuation when signals propagate in such a high frequency.

Research work on the ESA Hera Mission has started as well. The mission's objective is to assess the effects of a satellite impact on an asteroid. For that purpose the Austrian consortium develops 3D image processing and visualisation technologies. In 2022 JOANNEUM RESEARCH enabled messages from the moon in the course of the Artemis Mission: DIGITAL developed a controlling device for antennas which establish communication between rocket and ground station. This monopulse tracking receiver is distributed by CPI Vertex Antennentechnik GmbH, which provided the receiver for the British Goonhilly ground station in 2022. In 2022 JOANNEUM RESEARCH organised and hosted two international events: the „UN/A Symposium: Space for Climate Action“ and the „11th Advanced Satellite Multimedia Systems Conference (ASMS)“.

Funding of R&D infrastructure – the majority of the investments were made in 2022 and went into the Digital Twin Lab. This high-end infrastructure allows us to support businesses in their digital transformation in many ways.

Some 900 experts from all over the world attended those conferences.

A number of communication measures were taken to strengthen the location and transfer knowledge to businesses and people: in January, the JOANNOVUM customer newsletter featuring the topic of „Space“ was published, at the Fifteen Seconds Festival in June space expert Gerhard Paar was one of the speakers, and in October a JOANNEUM RESEARCH forum on „Space as a driver of the economy“ was held in cooperation with VRVis.

Digitalisation and Industry. In 2022 MATERIALS in Weiz put the focus of integrated optics on quantum research. Two projects were started in this research area, namely „OptoQuant“, which is implemented jointly with the University of Innsbruck and Infineon Technologies Austria AG, and „FLMOptChips“, i.e. femtosecond laser processing of integrated quantum-optical chips. Digital twins are the latest in digital transformation. Several research groups of DIGITAL take part in the „ESRIUM“ EU project, which was launched in 2020. The researchers are developing a system which combines data from different sensors,

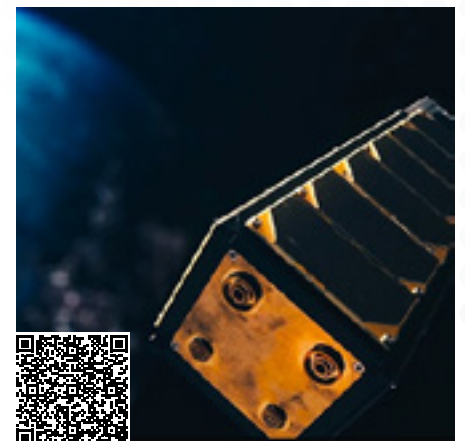
ESRIUM: digital twins for road infrastructure maintenance



Optoquant and FLMOptChips: integrated optics for quantum computers.



CubeSat: for the first time satellite signals are received in the W band.



318

Mitarbeiter*innen
forschen in der
Steiermark



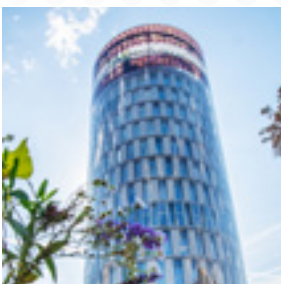
Graz
Headquarters
POLICIES – Institute for Economic, Social
and Innovation Research
Leonhardstrasse 59
8010 Graz



Graz
DIGITAL – Institute for
Digital Technologies
Steyrergasse 17
8010 Graz



Graz / ZWT
HEALTH – Institute for Biomedical
Research and Technologies
COREMED – Centre for Regenerative
and Precision Medicine
Neue Stiftingtalstrasse 2,
8010 Graz



Graz / Science Tower
LIFE – Institute for Climate,
Energy Systems and Society
Wagner-Biro-Straße 100
8020 Graz



Weiz
MATERIALS – Institute
for Sensors, Photonics and
Manufacturing Technologies
Franz-Pichler-Strasse 30
8160 Weiz



Niklasdorf
MATERIALS – Institute
for Sensors, Photonics and
Manufacturing Technologies
Leobner Strasse 94a
8712 Niklasdorf

Niklasdorf

Weiz

Graz

cameras and EGNSS-enabled detection devices.

The aim is to detect road damage and reduce maintenance costs. A team from MATERIALS in Niklasdorf is exploring new ways of laser welding. For that purpose a new infrastructure is available: the 8kW disc laser with scanner optics and the new BrightLine Weld technology. By means of these technologies materials such as copper or aluminium can be welded without flaws or porosity. This is especially important in electromobility for the welding of battery cells.

Analysis and Policy Consulting. In 2022 the TRAMI EU project was launched, which supports the implementation of EU mis-

sions in the areas of climate, soil, waters, cancer and cities, and is coordinated by POLICIES. In 2022 a POLICIES study on the Koralm Tunnel project visualising its effects on the regional economy set the course for developing the Southern economic area. POLICIES took part in regular discussions about the relationship between science and politics and prepared guidelines for scientific integrity in policy consulting.

In the new HORIZON EUROPE programme the applications of LIFE were very successful in 2022, in particular the International Climate Policy and Economics research group headed by Andreas Türk. Other focuses of LIFE were climate lifestyle and mobility, which was also dealt with in the session organised by JOANNEUM RESEARCH at the European Forum Alpbach.

Health. The team of COREMED has worked on a new approach in wound healing. The subject of research has been the role of adipocytes in wound healing. The correlation between lipometabolism and wound healing is a fact, its extent and exact relations are still under research.

Another focus of COREMED is research on wound healing after burns. The researchers received an award from the German Society for the Medical Treatment of Burns.

In 2022 major achievements in pharmaceutical research at HEALTH were, for example successful studies on allergies and sun protection products. By concluding the second and starting the third FDA project a major milestone was reached in establishing the certified technology of open flow microperfusion (OFM) as a

Career news

On 1 January 2022, Franz Feichtner took over from Frank Sinner as the Director of HEALTH. He manages the institute together with Thomas Pieber. Since 1 March 2022 Matthias Rütter has managed DIGITAL as the successor to Heinz Mayer.



We want to further strengthen the significance of digital innovations and make their added value for our customers even more visible.
DR MATTHIAS RÜTHER, DIRECTOR DIGITAL



We need to improve health literacy to empower people to make decisions.
PROF. DR LARS-PETER KAMOLZ, MSC, DIRECTOR COREMED

Cooperation Agreement between Silicon Austria Labs and JR



Fat cells help wound healing – an excellent COREMED project



The TRAMI project stands for a new research and innovation policy



The future of mobility was discussed at the European Forum Alpbach.



HEALTH developed a digital surgical safety checklist.



standard technology in the authorisation of topical generics. In neurological research the foundation for developing OFM as a tool to pursue research into glioblastomas was laid in 2022.

As well as pharmacological research, the topic of digital health-care is another research focus of HEALTH. In this area cooperation with KAGES was intensified and the surgical safety checklist co-developed by HEALTH and KAGES was piloted in 2022.



By means of digital products we can support and improve treatment processes.
 PROF. DR THOMAS PIEBER, DIRECTOR HEALTH



Our applications under the HORIZON EUROPE programme were crowned with success.
 DR FRANZ PRETTENTHALER, M.LITT., DIRECTOR LIFE



Open flow microperfusion (OFM) is well on the way to becoming the standard technology for authorisation of generics.
 DR FRANZ FEICHTNER, DIRECTOR HEALTH



Our work is involved in new transformative and industrial policy impulses at EU, national and regional level.
 WOLFGANG POLT, DIRECTOR POLICIES



We look back on numerous successes in funded research.
 PROF. DR PAUL HARTMANN, DIRECTOR MATERIALS

Niklasdorf

Weiz

Graz

Strong and Viable

At the Lakeside Science & Technology Park in Klagenfurt the foundation was laid for an expansion of topics and human resources. In addition to ROBOTICS, it is also the home of the institutes DIGITAL, LIFE and POLICIES.

Management. On 1 October Anton Scheiblmasser became director of the ROBOTICS institute. In the course of the reorientation process the institute plans to expand research to the use of industrial robots in production.

Cobots. The CapSize project was concluded at ROBOTICS. Michael Hofbauer's team developed a sensor system for robots for environment perception to achieve a higher measuring rate, measuring range and measuring accuracy, and a higher resolution for position estimates and motion detection in real time.

Award-winning Master's Thesis. Alexander Weissmann's master's thesis, which was written in connection with the PatternSkin project at ROBOTICS, received an award from the Mechatronics Platform Austria.

CapSize focuses on human-robot collaboration.



Koralm Railway Project. After the Koralm Railway takes up its service in 2026, the travel time between Graz and Klagenfurt will be reduced to 50 minutes. Last autumn a study on the railway's location efficiency was presented: it will have a positive effect on the demographic development in the region, which is strongly affected by out-migration, and will eliminate a bottleneck in freight traffic.

Events

- Drones Theatre in May: „Woyzeck Panopticon“ featuring the mobile CHIMERA robot platform by ROBOTICS as drum major at the Klagenfurt Festival.

- RAAD Conference in June: 100 researchers attended the three-day Conference on Robotics in the Alps-Adriatic-Danube Region, which was co-organised by ROBOTICS.

- SIT in October: The System Integrators Conference hosted by ROBOTICS focused on „digital twins“.

The Koralm Railway will have a positive effect on the neighbouring region.



This was shown by the study carried out by the team of Eric Kirschner at POLICIES, who had proved his expertise in the policy environment earlier by a study on education and qualification, which was concluded in 2022.

EIT Manufacturing

As part of the EIT Manufacturing community ROBOTICS carried out the FlexBotNDT research project on quality control by means of robots. The aim was to develop a robot system consisting of testing devices and collaborating robots for quality inspections of metal sheets and other semi-finished products. The automated system allows non-destructive material testing of semi-finished products of all sizes.

Climate protection as an opportunity: measures on the way to climate neutrality



Climate. Andreas Meltzer (LIFE) and his team calculate the greenhouse gas output throughout the life cycle of products or services for businesses.

23

researchers in Carinthia



Lakesidepark

POLICIES – Institute for Economic, Social and Innovation Research

LIFE – Institute for Climate, Energy Systems and Society

ROBOTICS – Institute for Robotics and Flexible Production

Lakeside B13b
9020 Klagenfurt

Our aim is to find new fields of application for robots.

ANTON SCHEIBELMASSER,
DIRECTOR ROBOTICS



We are international players in the European R&D Network and work regionally in cooperation with businesses in Carinthia.

PROF DR MICHAEL HOFBAUR,
DIRECTOR ROBOTICS



We are happy to operate the latest model infrastructure for the future-oriented topic of mobility in Carinthia.

DR FRANZ PRETTENTHALER, M.LITT,
DIRECTOR LIFE



We support the regional location policy by means of evidence-based analyses and concrete suggestions.

WOLFGANG POLT, DIRECTOR POLICIES



In the future, we will spend much more time in the digital world and will work even more intensively with digital twins.

DR MATTHIAS RÜTHER,
DIRECTOR DIGITAL



Klagenfurt

Smart and Light

In Burgenland JOANNEUM RESEARCH is represented by MATERIALS and the Smart Connected Lighting research group. Our aim is to expand our cooperation with academic, business and industrial partners and to explore new research topics.

Management. Andreas Weiss took over as head of the research group as of 1 April 2022. He joined the company in 2018 and was previously deputy group leader. The group's research focuses are smart communication and sensors via light.

Visible Light Communication. In 2022 the team worked on the 3DLiDap project, which is funded by the Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). The project aims at merging technologies in the areas of visible light communication (VLC), visible light positioning (VLP) and visible light sensing (VLS). The objective is to realise a not too complex and cost-efficient system which offers a comfortable, secure and resource-efficient interaction of users with space.

The SmartLight2Live project, which stretches over several years, deals with issues of merging innovative LED-based

In April 2022 Leonhard Schneemann, member of the Burgenland Government, visited our establishment in Pinkafeld.



functionalities such as visible light communication (VLC) and visible light positioning (VLP) with other sensor and communication technologies in the context of smart home and the internet of everything (IoE). Taking the quality of light, energy efficiency and data security aspects into account, innovative solution approaches are being developed by means of sensor fusion and artificial intelligence.

Cooperations projects

MATERIALS is engaged in research in Pinkafeld in cooperation with BECOM Electronics GmbH, PIK-AS GmbH and G₂ Industrial Engineering GmbH.

New: In 2022 JOANNEUM RESEARCH took part in the Long Night of Research in Burgenland for the first time, which increased the company's visibility in the region significantly.

7

researchers
in Burgenland



Technologiezentrum

MATERIALS - Institute for Sensors, Photonics and Manufacturing Technologies

Industriestrasse 6
7423 Pinkafeld



Together with a team of excellent researchers we work on business lighting solutions for businesses that are fit for the future.

PROF. DR PAUL HARTMANN,
DIRECTOR MATERIALS

Pinkafeld

Analysis and Consulting

Sought-after experts in the areas of policy consulting and gender research are part of the POLICIES team in Vienna.

Equality. The team headed by Helene Schiffbänker is part of European gender projects such as GENDERACTION plus and INSPIRE.

The overall objective is to foster gender equality in the European research area by building capacities, exchanging and coordinating strategies as well as providing strategic policy consulting.



House of Research
POLICIES – Institute for
Economic, Social and
Innovation Research

Sensengasse 1
1090 Wien

9

researchers
in Vienna

Vienna

We have been able to significantly
enhance our expertise in policy
and innovation consulting as well
as location analyses.

WOLFGANG POLT,
DIRECTOR POLICIES



LIGHT LABORATORY

In Pinkafeld innovative
light-based communication
and sensing solutions are
being realised.



We are JOANNEUM RESEARCH

approx.

500

staff members

approx.

30%

female scientific staff

16%

international staff members

25

nationalities

Our youngest colleagues are our apprentices. More info about their daily work:

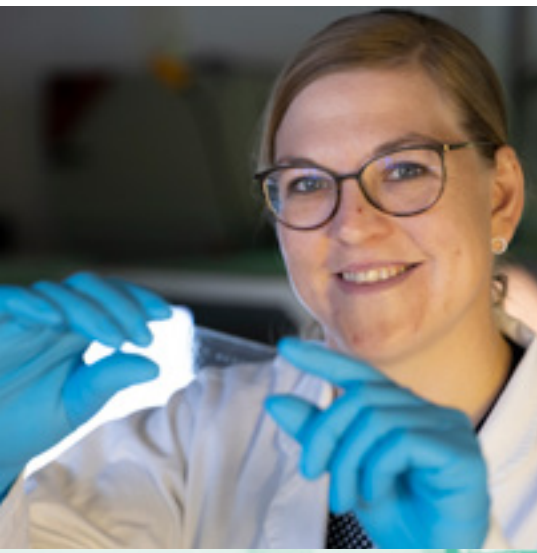


42,7

the average age of our staff

Pepper, the social robot helps us with our research:





Excellent *together*

more than

800

projects were carried out in 2022 altogether.

66

EU HORIZON projects are funded by the EU.

approx.

220

scientific presentations

approx.

200

projects have been commissioned by international customers

approx.

200

publications in technical journals, books and proceedings

11

awards, thereof 4 international ones

approx. patents

25

approx.

60

bachelor's, diploma, master's and doctoral theses

336

public appearances



FUTURE CONFERENCE

On 21 September 2022 technologies of tomorrow were presented and the best projects of JOANNEUM RESEARCH were given awards at the Future Conference. Scan the QR code to learn more about the projects.

Together in the media

In 2022 the media highlights covered the Long Night of Research, the opening of Infineon's quantum laboratory in connection with the Optoquant project, the awarding of the Rose of Recognition, as well as the European Forum Alpbach and our working group on „Setting the course for the mobility of the future“, the presentation of the location study in connection with the opening of the Koralm Tunnel, the Future Conference, the Artemis Mission and Heinz Mayer's Communicator of the Year Award.

240

posts on social media channels for more than 14,000 followers altogether

114

news reports on the website

30

advertisements, advertorials or exclusive stories

100

around stories on more than 10 channels

650

mentions in the media

Read our customer magazines online:





UNITED NATIONS SUSTAINABLE DEVELOPMENT SYMPOSIUM 2022



supported by e88a and other logos.



Investing *together*

<p>100%</p> <hr/> <p>Affiliate JR-AquaConSol GmbH</p>	<p>8%</p> <hr/> <p>COMET Centre investment ACIB GmbH</p>	<p>10%</p> <hr/> <p>COMET Centrum investment BEST – Bioenergy and Sustainable Technologies GmbH</p>	<p>12,5%</p> <hr/> <p>COMET Centre investment CBmed GmbH</p>
<p>10%</p> <hr/> <p>COMET Centre investment Know Center GmbH Research Center for Data-Driven Business & Big Data Analytics</p>	<p>8,4%</p> <hr/> <p>COMET Centrum investment Virtual Vehicle Research GmbH</p>	<p>17,5%</p> <hr/> <p>COMET Centre investment Materials Center Leoben Forschung GmbH</p>	<p>17%</p> <hr/> <p>COMET Centrum investment Polymer Competence Center Leoben GmbH</p>
<p>15%</p> <hr/> <p>COMET Centrum investment Research Center Pharmaceutical Engineering GmbH</p>	<p>20%</p> <hr/> <p>Investment ALP.Lab GmbH</p>	<p>10%</p> <hr/> <p>Investment decide Clinical Software GmbH</p>	<p>26%</p> <hr/> <p>Investment DIH SÜD GmbH – Digital Innovation Hub Süd</p>
<p>25%</p> <hr/> <p>Investment EPIG GmbH</p>	<p>14,9%</p> <hr/> <p>Investment FH JOANNEUM Gesellschaft mbH</p>	<p>10%</p> <hr/> <p>Investment Geo5 GmbH</p>	<p>5,9%</p> <hr/> <p>Investment Holz.Bau Forschungs GmbH</p>
<p>7%</p> <hr/> <p>Investment Human.technology Styria GmbH</p>	<p>3%</p> <hr/> <p>Investment Pacemaker Technologies GmbH</p>	<p>More information online:</p> 	

JOANNEUM RESEARCH

Annual financial statements

Assets

	31 Dec 2022 EUR	31 Dec 2021 EUR
A. Non-current assets		
I. Intangible assets		
1. Rights and licences	473,978.00	376,658.00
II. Property, plant and equipment		
1. Land and buildings	11,698,444.02	11,759,758.02
2. Technical plant and machinery	5,546,144.00	4,714,434.00
3. Other plant, furniture and fixtures	685,338.00	606,726.00
4. Advances made and construction in progress	934,821.88	541,485.25
	<u>18,864,747.90</u>	<u>17,622,403.27</u>
III. Financial assets		
1. Shares in affiliates	150,000.00	150,000.00
2. Participating interests	274,288.25	270,788.25
3. Investment securities (book-entry securities)	3,264,484.94	2,390,149.64
	<u>3,688,773.19</u>	<u>2,810,937.89</u>
	23,027,499.09	20,809,999.16
B. Current assets		
I. Inventories		
1. Raw materials and supplies	3,057.59	3,412.90
2. Services not yet chargeable less advances received	8,932,551.30	10,180,745.51
	-6,383,117.86	-6,799,111.67
3. Advances made	40,662.00	32,189.46
	<u>2,593,153.03</u>	<u>3,417,236.20</u>
II. Receivables and other assets		
1. Trade receivables <i>(thereof due within 1 year</i>	1,840,781.24	1,122,410.56
	<i>1,840,781.23</i>	<i>1,122,410.56)</i>
2. Receivables from affiliates <i>(thereof due within 1 year</i>	28,458.23	30,923.92
	<i>28,458.23</i>	<i>30,923.92)</i>
3. Receivables from undertakings with which the company is linked by virtue of participating interests <i>(thereof due within 1 year</i>	207,043.73	68,544.70
	<i>207,043.73</i>	<i>68,544.70)</i>
4. Receivables from subsidies and project grants <i>(thereof due within 1 year</i>	5,063,753.21	5,133,817.79
	<i>5,063,753.21</i>	<i>5,133,817.79)</i>

Assets

		31 Dec 2022	31 Dec 2021
		EUR	EUR
5. Other receivables and assets		12,236,203.69	11,828,665.68
<i>(thereof due within 1 year</i>	<i>12,236,203.69</i>		<i>11,828,665.68)</i>
		<hr/>	<hr/>
		19,376,240.10	18,184,362.65
<i>(thereof due within 1 year</i>	<i>19,376,240.10</i>		<i>18,184,362.65)</i>
<i>(thereof due after more than 1 year</i>	<i>0.00</i>		<i>0.00)</i>
III. Securities and shares			
1. Other securities and shares		0.00	853,997.86
IV. Cash and balances at banks		12,623,223.28	11,074,783.87
		<hr/>	<hr/>
		34,592,616.41	33,530,380.58
C. Prepayments and accrued income		3,121,469.54	3,141,023.85
D. Escrow funds		5,226,584.06	3,055,956.60
		<hr/>	<hr/>
Total assets		65,968,169.10	60,537,360.19
		<hr/>	<hr/>

Liabilities and shareholders' equity

	31 Dec 2022 EUR	31 Dec 2021 EUR
A. Equity		
I. Share capital called in and paid up	3,600,000.00	3,600,000.00
II. Capital reserves		
1. Appropriated	3,866,260.92	4,135,961.85
2. Unappropriated	362,637.44	362,637.44
	<u>4,228,898.36</u>	<u>4,498,599.29</u>
III. Retained earnings		
1. Statutory reserves	360,000.00	360,000.00
2. Other reserves (free reserves)	687,310.22	725,030.22
	<u>1,047,310.22</u>	<u>1,085,030.22</u>
IV. Net profit for the year	1,905,717.17	1,607,202.08
<i>(thereof profit carried forward</i>	<i>1,607,202.08</i>	<i>385,078.51)</i>
	<u>10,781,925.75</u>	<u>10,790,831.59</u>
B. Investment grants	2,082,777.86	1,692,402.31
C. Provisions		
1. Provisions for severance pay	5,682,000.00	5,483,700.00
2. Provisions for pensions	5,893,570.00	5,711,790.00
3. Tax provisions	7,485,400.00	7,019,500.00
4. Other provisions	10,127,500.00	10,239,000.00
	<u>29,188,470.00</u>	<u>28,453,990.00</u>
D. Liabilities		
1. Bank borrowings	1,387,542.57	1,484,625.30
<i>(thereof due within 1 year</i>	<i>819,730.96</i>	<i>712,193.77)</i>
<i>(thereof due after more than 1 year</i>	<i>567,811.61</i>	<i>772,431.53)</i>
2. Advances received on orders	1,801,539.65	2,375,100.72
<i>(thereof due within 1 year</i>	<i>1,562,837.04</i>	<i>360,778.11)</i>
<i>(thereof due after more than 1 year</i>	<i>238,702.61</i>	<i>2,014,322.61)</i>
3. Trade payables	2,609,593.72	1,883,819.01
<i>(thereof due within 1 year</i>	<i>1,428,738.48</i>	<i>985,659.97)</i>
<i>(thereof due after more than 1 year</i>	<i>1,180,855.24</i>	<i>898,159.04)</i>
4. Payables to affiliates	276,719.19	275,545.53
<i>(thereof due after more than 1 year</i>	<i>276,719.19</i>	<i>275,545.53)</i>
5. Payables to undertakings with which the company is linked by virtue of participating interests	50,180.00	42,000.00
<i>(thereof due within 1 year</i>	<i>50,180.00</i>	<i>42,000.00)</i>

Liabilities and shareholders' equity

		31 Dec 2022 EUR	31 Dec 2021 EUR
6. Other liabilities		2,969,589.80	2,803,926.52
<i>(thereof due within 1 year</i>	<i>1,582,112.80</i>		<i>1,416,449.52)</i>
<i>(thereof due after more than 1 year</i>	<i>1,387,477.00</i>		<i>1,387,477.00)</i>
<i>(thereof for taxes</i>	<i>376,168.28</i>		<i>385,174.02)</i>
<i>(thereof for social security</i>	<i>1,013,455.81</i>		<i>746,691.14)</i>
		9,095,164.93	8,865,017.08
<i>(thereof due within 1 year</i>	<i>5,443,599.28</i>		<i>3,517,081.37)</i>
<i>(thereof due after more than 1 year</i>	<i>3,651,565.65</i>		<i>5,347,935.71)</i>
E. Accruals and deferred income		9,593,246.50	7,679,162.61
F. Escrow liabilities		5,226,584.06	3,055,956.60
Total liabilities		65,968,169.10	60,537,360.19

	2022 EUR	2021 EUR
1. Revenue	17,363,350.92	14,645,453.09
2. Changes in the amount of services not yet chargeable	-1,248,194.21	1,788,243.53
3. Project-related other income	19,081,400.34	17,735,679.09
4. Shareholder contribution	9,743,500.00	10,051,000.00
5 Other own work capitalised	0.00	52,360.00
6. Other operating income		
(a) Income from disposal of non-current assets except for financial assets	10,357.10	340,01
(b) Income from reversal of provisions	450,073.29	576,809.80
(c) Income from reversal of investment grants	409,757.63	396,389.43
(d) Other	3,550,018.56	3,397,589.98
	4,420,206.58	4,371,129.22
7. Cost of materials and other services purchased		
(a) Cost of materials	2,041,135.17	2,016,887.81
(b) Costs of services purchased	1,715,359.89	1,567,845.88
	3,756,495.06	3,584,733.69
8. Cost of staff		
(a) Salaries	25,847,660.57	25,080,747.86
(b) Social benefits		
(aa) Expenses for old-age provision	528,301.58	450,761.14
(bb) Expenses for severance pay and contributions to Severance Pay and Pension Funds	827,679.50	769,391.74
(cc) Expenses for statutory social security contributions and payroll-related taxes and compulsory contributions	7,033,402.66	6,772,672.86
(dd) Other social benefits	159,110.48	138,694.81
	34,396,154.79	33,212,268.41
9. Amortisation of intangible non-current assets and depreciation of property, plant and equipment	3,622,357.00	3,522,206.63
10. Other operating expenses		
(a) Taxes, other than taxes stated in line 19	7,196.89	7,868.48
(b) Other	7,661,532.20	6,949,316.98
	7,668,729.09	6,957,185.46

	2022 EUR	2021 EUR
11. Subtotal lines 1 to 10 (Operating result)	-83,472.31	1,367,470.74
12. Income from investments <i>(thereof from affiliates)</i>	23,898.66	13,602.10
	<i>20,000.00</i>	<i>10,000.00</i>
13. Income from other securities	21,219.35	14,055.00
14. Other interest and similar income	154,558.63	7,846.00
15. Income from disposal and write-up of financial assets and securities held as current assets	20,337.49	0.00
16. Expenses for financial assets and securities held as current assets		
(a) Write-downs	0.00	158,885.00
(c) Other	70,664.48	46,224.69
	70,664.48	205,109.69
17. Interest and similar expenses <i>(thereof from affiliates)</i>	48,003.18	46,851.69
	<i>1,173.66</i>	<i>10,777.82</i>
18. Subtotal lines 12 to 17 (Financial result)	101,316.47	-216,458.28
19. Profit or loss before tax (Subtotal lines 11 and 18)	17,844.16	1,151,012.46
20. Income taxes	1,750.00	1,750.00
21. Profit or loss for the year = profit or loss after tax	16,094.16	1,149,262.46
22. Reversal of capital reserves (a) Appropriated	269,700.93	260,569.86
23. Reversal of retained earnings (a) Other reserves (free reserves)	12,720.00	12,720.00
24. Allocation to retained earnings (a) Statutory retained earnings	0.00	-200,428.75
25. Profit carried forward from previous year	1,607,202.08	385,078.51
26. Net profit for the year	1,905,717.17	1,607,202.08

NOTES to the financial statements for the financial year 2022 of JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz

ACCOUNTING AND VALUATION POLICIES

General principles

The annual financial statements of JOANNEUM RESEARCH Forschungsgesellschaft mbH were prepared in accordance with the provisions of the Austrian Business Code [*Unternehmensgesetzbuch/UGB*] as amended, in accordance with generally accepted accounting principles and the general principle of presenting a true and fair view of the Company's financial position and financial performance.

When preparing the annual financial statements the principle of completeness was complied with.

Assets and liabilities were measured on a going concern basis according to the principle of item-by-item valuation.

The principle of prudent valuation was taken account of by recognising only the profits realised as at the balance sheet date. All recognisable risks and anticipated losses were taken into consideration.

Non-current assets

Intangible assets

Intangible assets are recognised at cost plus incidental acquisition costs less cash discounts deducted and after amortisation on a straight-line basis. The useful life applied is 3 years (33%) (previous year: 3 to 5 years (20%-33%)).

Property, plant and equipment

Property, plant and equipment is recognised at cost plus incidental acquisition costs less cash discounts deducted and after depreciation.

Public subsidies for non-current assets are presented on the liabilities side as investment grants from public funds. Those investment grants are used analogously to the depreciation of non-current assets.

Amortisation and depreciation is calculated on a straight-line basis according to the following useful lives and rates:

	Useful life in years	Depreciation rate in %
Buildings, including buildings on land owned by others	10 - 40	2.5 - 10
Machinery, scientific equipment and electronic data processing systems	5 - 6 (previous year: 3 - 10)	16.7 - 20 (10 - 33)
Other plant, furniture and fixtures	4 - 10	10 - 25

Full annual depreciation is applied to additions made in the first half of the financial year, and half the yearly rate is applied to additions made during the second half of the year.

Low-value assets as defined in Section 13 of the Austrian Personal Income Tax Act [*Einkommensteuergesetz/ESTG*] 1988, i.e. the cost of acquisition of which is less or equal to EUR 800 per asset, are fully written off in the year of acquisition and presented as additions or disposals in the non-current assets movement schedule.

Financial assets

Shares in affiliates and **participating interests** are measured at cost less impairment losses, where appropriate.

Investment securities are recognised at the lower of cost or fair value at the balance sheet date.

In the reporting year no write-downs of financial assets were made.

Current assets

Inventories

Consumables were measured at the lower of cost or market.

Services not yet chargeable in connection with contract research are calculated on the basis of cost accounting. Project costs are recognised on the basis of an itemisation by cost centre and direct cost statements. Item-by-item valuation at cost of production or acquisition as defined in Section 203 *UGB* is applied. Apart from the costs attributable according to the costs-by-cause principle, production costs also include pro-rata production overheads that can be capitalised and portions of social expenses as defined in the second to last sentence of Section 203(3) *UGB*. Interest expenses and the research risk are not accounted for.

Due to the Company's project structure administrative overheads must be capitalised for projects with a term of more than twelve months. In order to give a true and fair view of the Company's financial position and financial performance, the option right (cf. Section 206(3) *UGB*) was exercised.

If losses are anticipated in connection with orders or if additional costs are expected to be incurred for services that have been invoiced already, semi-finished products will be discounted or provisions set up. For contingent warranty obligations in connection with contract research provisions are recognised in the balance sheet as well.

Receivables and other assets

Receivables and other assets are measured at nominal value unless the lower fair value is recognised in the case of specific recognisable risks. Provisions for general credit risks are made in the form of general allowances at a rate of 2% (previous year: 2%) of total net receivables.

Provisions

Provisions for severance pay are calculated according to principles of financial mathematics on the basis of the 10-year average interest rate with a term of fifteen years. Calculation of the provision for severance pay was based on an interest rate of 1.78% (previous year: 1.87%) as at 31 December 2022, a salary trend of 2.97% (previous year: 2.78%) and a retirement age of 65 years on a going-concern basis.

No fluctuation discount was recognised.

The **pension provision** is calculated in the amount of the actuarial cover requirement on the basis of the provisions of Section 198 and Section 211 *UGB* as amended by the Austrian Act on Changes in Accounting Practices [*Rechnungslegungs-Änderungsgesetz/RÄG*] 2014 in compliance with the AFRAC Opinion on "Provisions for pension, severance pay, long-service bonus and comparable long-term obligations under *UGB* provisions". The calculation was based on the "*AVÖ 2018-P Rechnungsgrundlagen für die Pensionsversicherung*" actuarial reference tables for pension insurance. The calculatory interest rate used was the 10-year average interest rate of 1.56% (previous year: 1.62%) with an average remaining term of ten years.

Other provisions take into account all recognisable risks and liabilities the amount of which is contingent and are recognised at the amounts which, according to best estimate, must be used to fulfil the obligation. No provisions other than those provided for by law are set up.

Changes in provisions concerning a reversal of provisions are recognised in item 6(b) and allocations to provisions are stated in item 8(b) if they are attributable to staff costs; all others are recognised as other operating expenses in item 10(b) of the income statement.

Liabilities

Liabilities are recognised at the settlement value in compliance with the principle of prudence.

Currency translation

Receivables and payables are measured at the mean rate of exchange at the date of the transaction and according to the lower of cost or market principle or higher of cost or market principle at the balance sheet date, respectively.

NOTES TO THE BALANCE SHEET

ASSETS

NON-CURRENT ASSETS

As to the development of the different non-current assets and the breakdown of annual amortisation and depreciation reference is made to the non-current assets movement schedule (Annex to the Notes). As at the balance sheet date non-current assets amounted to EUR 23,027,499.09 (previous year: kEUR 20,810.0) in total. In the financial year 2022 capital expenditure amounted to a total of EUR 6,502,117.93 (previous year: kEUR 5,251.3) and amortisation and depreciation amounted to EUR 3,622,357.00 (previous year: kEUR 3,658.7). In the financial year 2022 disposals at historical cost amounted to EUR 3,104,002.28 (previous year: kEUR 2,034.3).

Intangible assets include software and data transmission rights of a carrying amount of EUR 473,978.00 (previous year: kEUR 376.7). Additions of EUR 385,121.19 (previous year: kEUR 301.8) are attributable to the acquisition of licences and various software.

As at the balance sheet date **property, plant and equipment** amounted to EUR 18,864,747.90 (previous year: kEUR 17,622.4). The land value was EUR 2,877,794.02 (previous year: kEUR 2,877.8). The building value of land with buildings and buildings on land owned by others of EUR 8,820,650.00 (previous year: kEUR 8,882.0) is made up of the net building value of EUR 3,628,419.00 (previous year: kEUR 3,751.9) and structural improvements worth EUR 3,222,519.00 (previous year: kEUR 3,065.6), i.e. EUR 6,850,938.00 (previous year: kEUR 6,817.5) are attributable to buildings on land owned by the Company and an amount of EUR 1,969,712.00 (previous year: kEUR 2,064.5) is attributable to capital expenditure on buildings owned by others. Additions in a total amount of EUR 4,595,661.44 (previous year: kEUR 2,861.8) mainly concern the provision of modern scientific equipment for the Company's research activities and further expansion of the IT infrastructure. Disposals at historical cost in the amount of EUR 2,210,382.55 (previous year: kEUR 649.6) mainly concern disposals or, to a small extent, sale of scientific equipment, IT equipment and various office equipment. No impairment losses were recognised.

Shares in affiliates in the amount of EUR 150,000.00 (previous year: kEUR 150.0) concern the shares in JR-AquaConSol GmbH in Graz.

According to the statement of investments the following **participating interests** are held:

Statement of Investments as at 31 December 2022

	Interest		Equity EUR	Net profit or loss in EUR	Balance sheet date
	EUR	%			
ACIB GmbH	16,000.00	8.00%	4,655,717.02	170,327.22	31 Dec 2021
ALP.Lab GmbH	9,100.00	20.00%	25,264.91	-9,735.09	31 Dec 2021
BEST - Bioenergy and Sustainable Technologies GmbH	20,000.00	10.00%	1,948,826.77	1,713,472.84	31 Mar 2022
CBmed GmbH	25,000.00	12.50%	2,470,286.11	2,270,286.11	31 Dec 2021
decide Clinical Software GmbH	42,500.00	10.00%	63,398.56	-361,601.44	31 Dec 2021
DIH SÜD GmbH	9,100.00	26.00%	502,422.74	0.00	31 Dec 2021
EPIG GmbH	8,750.00	25.00%	348,718.13	313,718.13	31 Dec 2021
FH JOANNEUM Gesellschaft mbH	10,828.25	14.90%	4,000,000.00	0.00	30 Jun 2022
Geo5 GmbH	8,000.00	10.00%	139,483.49	59,483.49	31 Dec 2021
Holz.Bau Forschungs GmbH	3,500.00	5.98%	414,124.00	355,624.00	31 Dec 2021
Human.technology Styria GmbH	2,450.00	7.00%	199,656.02	-1,007.81	31 Dec 2021
Know-Center GmbH Research Center for Data-Driven Business & Big Data Analytics	14,540.00	10.00%	1,547,316.55	0.00	31 Dec 2021
Materials Center Leoben Forschung GmbH	51,100.00	17.50%	7,801,151.66	793,901.34	31 Dec 2021
Pacemaker Technologies GmbH	1,050.00	3.00%	2,453.01	-32,546.99	31 Dec 2021
Polymer Competence Center Leoben GmbH	34,000.00	17.00%	5,897,086.70	235,876.35	31 Dec 2021
Rebeat Innovation GmbH	80,000.00	1.70%	n.a.	n.a.	bankruptcy
Research Center Pharmaceutical Engineering GmbH	15,000.00	15.00%	5,596,869.60	901,969.60	30 Jun 2022
Virtual Vehicle Research GmbH	10,640.00	8.40%	7,201,213.05	1,132,008.72	31 Dec 2021

As at the balance sheet date the carrying amount of **investment securities** was EUR 3,264,484.94 (previous year: kEUR 2,390.1).

Write-up or revaluation

In the reporting year the Company refrained from recording a write-down of financial assets of EUR 603,217.30.

Amortisation and depreciation of the remaining non-current assets completely result from ordinary amortisation and depreciation.

CURRENT ASSETS

Inventories

The item **raw materials and supplies** in the amount of EUR 3,057.59 (previous year: kEUR 3.4) is made up of consumables (mainly toners, computer network cards, laser printer spare parts and various small items of equipment).

The item **services not yet chargeable** in connection with contract research includes work in progress and services not yet chargeable in the amount of EUR 2,549,433.44 (previous year: kEUR 3,381.6), under which administrative overheads of EUR 1,833,851.13 (previous year: kEUR 1,866.7) were capitalised for contracts the execution of which lasts more than twelve months. The Company's project structure requires such capitalisation of administrative overheads to present a true and fair as well as a continuing view of the Company.

In the reporting year the advances received on research projects in the amount of EUR 6,383,117.86 (previous year: kEUR 6,799.1) were deducted. The excess amount of EUR 1,801,539.65 (previous year: kEUR 2,375.1) was recognised on the liabilities side.

Advances made on inventories amount to EUR 40,662.00 (previous year: kEUR 32.2).

Receivables and other assets

	Receivables as at 31 Dec 2022 (31 Dec 2021)	thereof due after more than 1 year	thereof evidenced by bills of exchange	Capitalised accruals Section 225(3) UGB	General allowance
	EUR	EUR	EUR	EUR	EUR
Trade receivables	1,840,781.24 (1,122,410.56)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	38,000.00 (21,400.00)
Receivables from affiliates	28,458.23 (30,923.92)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Receivables from undertakings with which the Company is linked by virtue of participating interests or book-entry securities	207,043.73 (68,544.70)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Receivables from the owners	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00	0.00 (0.00)
Receivables from subsidies and project grants	5,063,753.21 (5,133,817.79)	0.00 (0.00)	0.00 (0.00)	5,063,753.21 (5,133,817.79)	0.00 (0.00)
Receivables from the liability commitment of the State of Styria	5,600,000.00 (5,600,000.00)	0.00 (0.00)	0.00 (0.00)	5,600,000.00 (5,600,000.00)	0.00 (0.00)
Other receivables and assets	6,636,203.69 (6,228,665.68)	0.00 (0.00)	0.00 (0.00)	6,586,733.90 (6,155,355.38)	0.00 (0.00)
TOTAL	19,376,240.10 (18,184,362.65)	0.00 (0.00)	0.00 (0.00)	17,250,487.11 (16,889,173.17)	38,000.00 (21,400.00)

Itemised allowances in the amount of EUR 1,028,673.44 (previous year: kEUR 1,014.7) were made for doubtful **trade receivables** and deducted from the assets.

Receivables from affiliates concern trade receivables.

Receivables from subsidies and project grants concern grant approvals from various funding agencies. Due to the fact that processing, including receipt of payment, takes more than three months, a discount in the amount of EUR 11,800.00 (previous year: kEUR 8.1) was made. The calculatory interest rate was 0.52% (previous year: 0.4%).

Other receivables and assets mainly include receivables from the Tax Office for Large Enterprises, various interest accrued, as well as refunds and aids. This item also includes a liability commitment of the State of Styria in the amount of EUR 5,600,000.00 (previous year: kEUR 5,600.0) to cover the loss from the tax audit by the Tax Office of Graz-Stadt, and receivables from the Tax Office of Graz-Stadt from research allowances in the amount of EUR 6,177,572.46 (previous year: kEUR 5,962.6).

Securities held as current assets

Securities held as current assets in the previous year's amount of EUR 853,997.86 were transferred to non-current assets.

Cash and balances at banks

This item in the amount of EUR 12,623,223.28 (previous year: kEUR 11,074.8) is made up of **cash** in the amount of EUR 7,055.50 (previous year: kEUR 7.5) and **bank balances** of EUR 12,616,167.78 (previous year: kEUR 11,067.3).

PREPAYMENTS AND ACCRUED INCOME

Prepayments and accrued income in the amount of EUR 3,121,469.54 (previous year: kEUR 3,141.0) include payments made in the financial year 2022 which have to be charged as expenses in the following year and mainly concern prepayments of maintenance expenses, various subscriptions and membership fees, insurance premiums and congress fees. In addition, this item includes a prepayment of rent in the amount of EUR 2,802,187.37 (previous year: kEUR 2,878.4).

ESCROW FUNDS

Escrow funds include balances at banks for projects with the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH) and the European Commission, where JOANNEUM RESEARCH Forschungsgesellschaft mbH acts as the coordinator and holds the funds in escrow and manages payments for the project partners (see escrow liabilities).

LIABILITIES AND SHAREHOLDERS' EQUITY

SHAREHOLDERS' EQUITY

The Company's **share capital** amounts to EUR 3,600,000.00 (previous year: kEUR 3,600.0), of which 80.75% (previous year: 80.75%) or EUR 2,907,000.00 (previous year: kEUR 2,907.0) are held by the State of Styria, 14.25% (previous year: 14.25%) or EUR 513,000.00 (previous year: kEUR 513.0) by BABEG - Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H., and 5% (previous year: 5%) or EUR 180,000.00 (previous year: kEUR 180.0) of the share capital are held by Wirtschaftsagentur Burgenland GmbH (until 31 December 2021: Landesholding Burgenland GmbH pursuant to a resolution passed at the meeting of the Burgenland State Government on 27 April 2022).

Taking into account the **profit for the year** of EUR 298,515.09 (previous year: EUR 1,222,123.57) and the profit carryforward in the amount of EUR 1,607,202.08 (previous year: EUR 385,078.51) the resulting **net profit for the year** is EUR 1,905,717.17 (previous year: EUR 1,607,202.08).

APPROPRIATED CAPITAL RESERVE

Both in the Participation and Cooperation Agreement with BABEG - Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. of 18 December 2014 and in the Participation and Cooperation Agreement with Wirtschaftsagentur Burgenland GmbH of 20 April 2018 the shareholders agreed that the **appropriated capital reserve** be reversed as stipulated.

In financial 2022 a shareholder contribution of EUR 25,000.00 by BABEG – Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H., which had been carried forward from financial 2021, was reversed.

SPECIAL ITEMS FOR INVESTMENT GRANTS FROM PUBLIC FUNDS

In the reporting year **investment grants from public funds** developed as follows:

	As at 1 Jan 2022	Additions	Consumption according to depreciation	Reversal	Reclassifi- cation or corrections	As at 31 Dec 2022
	EUR	EUR	EUR	EUR	EUR	EUR
Property, plant and equipment						
1. Buildings, including buildings on land owned by others	1,077,313.00	205,942.78	-132,930.44	0.00	4,661.66	1,154,987.00
2. Machinery, scientific equipment and electronic data processing systems	603,930.65	590,662.40	-274,027.19	-487.00	0.00	920,078.86
3. Other plant, furniture and fixtures	11,158.66	3,528.00	-2,313.00	0.00	-4,661.66	7,712.00
Financial assets						
1. Financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Total	1,692,402.31	800,133.18	-409,270.63	-487.00	0.00	2,082,777.86

Covid-19 investment grants were taken into account also in the reporting year 2022.

PROVISIONS

An amount of EUR 58,559.00 (previous year: kEUR 69.3) of the **provisions for severance pay** was used. In order to meet the cover requirement of EUR 5,682,000.00 (previous year: kEUR 5,483.7), an amount of EUR 256,859.00 (previous year: kEUR 430.6) was allocated to the provision.

An amount of EUR 346,521.58 (previous year: kEUR 330.5) of the **pension provisions** (former managing director) was used for pension payments. In order to meet the actuarial cover requirement of EUR 5,893,570.00 (previous year: kEUR 5,711.8), an amount of EUR 528,301.58 (previous year: kEUR 432.3) had to be allocated to the provision.

The item **provision for taxes** concerns additional tax claims resulting from the tax audit in connection with the temporary loss of the status of a non-profit organisation in the amount of EUR 4,731,700.00 (previous year: kEUR 4,731.7), additional tax claims in the amount of EUR 2,658,400.00 (previous year: kEUR 2,192.5) resulting from the tax audit in connection with the division of input taxes into a business part and a non-business part, and additional tax claims resulting from the tax audit in connection with VAT treatment of services provided for the State of Styria in the field of "locational positioning" in the amount of EUR 95,300.00 (previous year: kEUR 95.3).

Other provisions include as main items the provision for unconsumed annual leave in the amount of EUR 2,476,000.00 (previous year: kEUR 2,413.7), provisions for potential claims for refund of various funding parties in the amount of EUR 1,220,300.00 (previous year: kEUR 1,175.1), the provision for working time credits in the amount of EUR 780,300.00 (previous year: kEUR 820.0) and the provision for anticipated losses or costs of work in progress in the amount of EUR 629,600.00 (previous year: kEUR 716.7).

This item also includes the **provision for the tax audit** by the Tax Office of Graz-Stadt in the amount of EUR 3,980,700.00 (previous year: kEUR 3,980.7).

LIABILITIES

The item **bank borrowings** in the amount of EUR 1,387,542.57 (previous year: kEUR 1,484.6) includes an export fund credit line of EUR 712,193.77 (previous year: kEUR 712.2) and a loan for the acquisition of the property EZ [folio number] 458 GB [Land Register] 60340 in Niklasdorf with a remaining term of up to one year in the amount of EUR 137,680.25 and with a remaining term of more than five years in the amount of EUR 537,664.20 (previous year: kEUR 772.4).

Advances received which cannot be deducted from inventories in the reporting year amounted to EUR 1,801,539.65 (previous year: kEUR 2,375.1) net and were offset together with the advances received in connection with services not yet chargeable against the relating items of inventories.

As at the balance sheet date **trade payables** were EUR 2,609,593.72 (previous year: kEUR 1,883.8), predominantly to Austrian suppliers.

Other liabilities include the profit-participating loan granted by the State of Styria on 1 November 2004 in the amount of EUR 1,387,477.00 (previous year: kEUR 1,387.5). In addition, this item mainly includes clearing funds with the Austrian Health Insurance Fund [*Österreichische Gesundheitskasse/ÖGK*] and other necessary deferrals. Advances made by funding parties in the amount of EUR 7,509,860.76, which were recorded under this item in the previous year, are for the first time recognised under **accruals and deferred income**.

Other liabilities include expenses in the amount of EUR 1,674,710.82 (previous year: kEUR 1,491.6), which will be paid only after the balance sheet date.

Other financial obligations

Based on the Grant Agreement of the Office of the Styrian Government, Department 8, Health, Care and Science, by decision of the Styrian Government of 29 April 2021, reference number: ABT08-129749/2021-6, funding of a shareholder contribution of JOANNEUM RESEARCH Forschungsgesellschaft mbH to DIH Süd GmbH of a total amount of EUR 900,000.00 for the period from 1 April 2021 to 31 March 2024 was approved and granted.

Obligations arising from use of property, plant and equipment not presented in the balance sheet:

	for the next financial year	for financial years 2023 to 2027
	EUR	EUR
Room rents	1,009,401.00	5,047,005.00
(previous year)	(929,695.00)	(4,648,475.00)
Equipment rents	51,049.00	225,743.00
(previous year)	(91,100.00)	(343,400.00)
Total	1,060,450.00	5,272,748.00
(previous year)	(1,020,795.00)	(4,991,875.00)

ACCRUALS AND DEFERRED INCOME

Accruals and deferred income in the amount of EUR 9,593,246.50 (previous year: kEUR 169.3) include royalties. For the first time this item also includes advances of EUR 9,570,146.74 (previous year: kEUR 7,509.9 recognised under other liabilities) made by funding parties.

ESCROW LIABILITIES

Escrow liabilities result from projects with the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH) or the European Commission, where JOANNEUM RESEARCH Forschungsgesellschaft mbH acts as the coordinator and holds the funds in escrow and manages payments for the project partners (see escrow funds).

CONTINGENT LIABILITIES

(cf. in this respect Other disclosures, Contingencies).

NOTES TO THE INCOME STATEMENT

Revenues generated in the financial year 2022 are classified according to areas of activity and divided into domestic and international revenues:

Amounts in EUR	Financial year 2022	Financial year 2021
Domestic revenues		
Research	6,481,881.95	5,379,107.79
Royalties	350,988.73	994,723.96
Congress fees	8,528.57	2,289.40
Other	1,874,819.47	1,727,814.83
Total domestic revenues	8,716,218.72	8,103,935.98
International revenues		
Research	8,530,535.99	6,456,788.61
Royalties	54,002.87	84,516.00
Congress fees	62,301.67	0.00
Other	291.67	212.50
Total international revenues	8,647,132.20	6,541,517.11
Total revenues	17,363,350.92	14,645,453.09

The expenses of EUR 827,679.50 (previous year: kEUR 769.4) stated in item 8.(bb) include contributions to Severance Pay and Pension Funds in the amount of EUR 285,503.29 (previous year: kEUR 280.2) and expenses for severance pay in the amount of EUR 542,176.21 (previous year: kEUR 489.2).

OTHER DISCLOSURES

Shares in affiliates and participating interests

As at the balance sheet date 31 December 2022 the Company held 100% of the shares or EUR 150,000.00 (previous year: kEUR 150.0) in JR-AquaConSol GmbH.

The financial statements for the year ended 31 December 2022 show equity of EUR 1,431,394.32 (previous year: EUR 1,358,189.28), which includes a net profit for the year of EUR 1,131,394.32 (previous year: EUR 1,058,189.28). The profit for the year was EUR 92,633.76 (previous year: EUR 68,923.20).

As at the balance sheet date 31 December a participating interest of 25% of the shares or EUR 8,750.00 (previous year: kEUR 8.8) was held in EPIG GmbH. The financial statements for the year ended 31 December 2021 show equity in the amount of EUR 348,718.13 (previous year: EUR 288,170.07), which includes a net profit for the year of EUR 313,718.13 (previous year: EUR 253,170.07).

In addition, the Company held another participating interest of 26% of the shares or EUR 9,100.00 in DIH Süd GmbH as at the balance sheet date 31 December. The financial statements for the year ended 31 December 2021 (short financial year) show equity in the amount of EUR 502,422.74 and a net profit for the year of EUR 0.00.

Due to the capital increase (subscription statement of 4 May 2022) the participating interest in ALP.Lab GmbH increased to 20% (previous year: 16%) or EUR 9,100.00 (previous year: EUR 5,600.00) as at the balance sheet date 31 December. The financial statements for the year ended 31 December 2021 show equity in the amount of EUR 25,264.91 (previous year: EUR 60,959.32), which includes a net loss for the year of EUR 9,735.09 (previous year: net profit for the year of EUR 25,959.32).

All other participating interests are below 20%.

Staff

As at the balance sheet date the Company had 489 (previous year: 478) employees; taking part-time employees into account on a pro-rata basis, the number of staff was 406.5 (previous year: 400.4). Taking part-time employees into account on a pro-rata basis, the average number of employees was 404.1 (previous year: 398.1).

In application of the provisions of Section 242(4) *UGB* no itemisation of salaries, severance pay or pensions for the management as defined in Section 239(1) *UGB* was made in the previous year. As at the balance sheet date of the reporting year expenses for old-age provision in the amount of EUR 528,301.58 (previous year: kEUR 450.8) for former managing directors were recognised.

No loans or advances were granted to members of the management or the supervisory board. No liability in favour of that group of persons was assumed either.

The cost of remuneration of members of the Scientific Advisory Board and of the supervisory board amounted to EUR 112,252.44 (previous year: kEUR 110.2) in total.

Events after the balance sheet date

After closing of the accounts for the reporting year no other significant events occurred which would have affected the financial position or financial performance in the financial year 2022.

Bodies of the Company in the financial year 2022:

SCIENTIFIC ADVISORY BOARD

Gerald SCHÖPFER
Chairman

Gerhard FRIEDRICH
Deputy Chairman

Gernot HANREICH
Deputy Chairman

Hansjörg ALBRECHER

Horst BISCHOF

Michaela FRITZ

Günter GETZINGER

Manfred HUSTY

Mario MÜLLER

Michael PATAK

Reinhard PETSCHACHER

Herbert RITTER

Karin SCHAUPP

Waltraud SCHINKO-NEUROTH

Caroline SCHOBER

Stefan TASCH

Frank UHLIG

Management:

Heinz Mayer

SUPERVISORY BOARD

Martin WIEDENBAUER
Chairman

Fritz SPERL
Deputy Chairman

Erlfried TAURER
Deputy Chairman

Klaus HATZL

Werner HAUSER

Alexandra HÖRMANN
(until 30 April 2022, Business Register entry as of
1 June 2022)

Michaela KRENN

Rupert PICHLER

Bettina SCHRITTWIESER
(since 30 April 2022, Business Register entry as of
1 June 2022)

Birgit STRIMITZER-RIEDLER

Members delegated to the supervisory board by the works council:

Ferdinand GOLJA, Chairman of the Works Council

Clemens HABSBURG-LOTHRINGEN

Helen HASENAUER

Maria HINGSAMER

Gertrude MATZER

Contingencies

Pursuant to Section 199 *UGB* guarantees for rent security deposits vis-à-vis Zentrum für Wissens- und Technologietransfer in der Medizin GmbH (EUR 110,890.00), W.E.I.Z. Immobilien GmbH (EUR 38,019.46), SFL technologies Science Tower GmbH (EUR 36,000.00) and Lakeside Science & Technology Park GmbH (EUR 1,521.60) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs Aktiengesellschaft (EUR 63,958.47) and an advance payment guarantee vis-à-vis Glock GmbH (EUR 6,875.00) are presented below the balance sheet.

Pursuant to Section 199 *UGB* guarantees for rent security deposits vis-à-vis Zentrum für Wissens- und Technologietransfer in der Medizin GmbH (EUR 110,890.00), W.E.I.Z. Immobilien GmbH (EUR 38,019.46) and SFL technologies Science Tower GmbH (EUR 36,000.00) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs Aktiengesellschaft (EUR 73,706.27) and Stummer Kommunalfahrzeuge Ges.m.b.H (EUR 122,306.25) were presented below the balance sheet in the previous year.

The securities account has been pledged in favour of Steiermärkische Bank und Sparkassen Aktiengesellschaft.

Other information

Based on the objectives defined in Article 1(3) of the Articles of Association the Company pursues the aim of furtherance of the general public in the fields of research, development and science exclusively and directly in the interest of public welfare. No net profit that may be generated will be distributed.

According to a decision of the Finance Authority for the State of Styria dated 16 January 1995, reference no. 29/31-10/94, JOANNEUM RESEARCH Forschungsgesellschaft mbH belongs to the group of preferential recipients as defined in Section 4(4) No. 5(e) *EStG* 1988 as amended by Art. I No. 4(a) of the Austrian Tax Reform Act [*Steuerreformgesetz*] 1993.

The expenses for the statutory auditor for auditing the annual financial statements amounted to EUR 14,250.00 (previous year: EUR 18,000.00). No other certification services, tax advisory services or other services of the statutory auditor were rendered in the reporting year or in the previous year.

Graz, 28 February 2023

The Management



Heinz Mayer

	DEVELOPMENT OF NON-CURRENT ASSETS											
	Cost of acquisition				Accumulated amortisation and depreciation				Carrying amounts			
	1 Jan 2022	Additions	Disposals	Reclassification	31 Dec 2022	1 Jan 2022	Additions	Disposals	31 Dec 2022	31 Dec 2021	31 Dec 2022	
EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	
(I) Intangible assets												
Software, data transmission rights and other rights	3,549,253.45	385,121.19	229,437.23	44,470.00	3,749,407.41	3,172,595.45	332,271.19	229,437.23	3,275,429.41	376,658.00	473,978.00	
Total intangible assets	3,549,253.45	385,121.19	229,437.23	44,470.00	3,749,407.41	3,172,595.45	332,271.19	229,437.23	3,275,429.41	376,658.00	473,978.00	
(II) Property, plant and equipment												
(1) Land, rights equivalent to land and buildings, including buildings on land owned by others	2,877,794.02	0.00	0.00	0.00	2,877,794.02	0.00	0.00	0.00	0.00	2,877,794.02	2,877,794.02	
(a) Land value	19,409,675.81	595,428.37	41,555.13	68,738.59	20,032,287.64	10,527,711.81	725,336.96	41,411.13	11,211,637.64	8,881,964.00	8,820,650.00	
(b) Building value												
Subtotal land and buildings	22,287,469.83	595,428.37	41,555.13	68,738.59	22,910,081.66	10,527,711.81	725,336.96	41,411.13	11,211,637.64	11,759,758.02	11,698,444.02	
(2) Machinery, scientific equipment and EDP systems	32,153,362.02	2,661,631.20	1,900,079.80	389,753.24	33,304,666.66	27,438,928.02	2,202,286.44	1,882,691.80	27,758,522.66	4,714,434.00	5,546,144.00	
(3) Other plant, furniture and fixtures	3,827,690.98	307,807.81	142,232.32	7,980.30	4,001,246.77	3,220,964.98	235,947.11	141,003.32	3,315,908.77	606,726.00	685,338.00	
(4) Advances made and construction in progress	597,483.25	907,178.21	0.00	-566,940.13	937,721.33	0.00	0.00	0.00	0.00	597,483.25	937,721.33	
Offsetting of input tax on advances for non-current assets	-55,998.00	-2,899.45	0.00	55,998.00	-2,899.45	0.00	0.00	0.00	0.00	-55,998.00	-2,899.45	
Subtotal advances made and construction in progress	541,485.25	904,278.76	0.00	-510,942.13	934,821.88	0.00	0.00	0.00	0.00	541,485.25	934,821.88	
(5) Low-value assets	0.00	126,515.30	126,515.30	0.00	0.00	0.00	126,515.30	126,515.30	0.00	0.00	0.00	
Total property, plant and equipment	58,810,008.08	4,595,661.44	2,210,382.55	-44,470.00	61,150,816.97	41,187,604.81	3,290,085.81	2,191,621.55	42,286,069.07	17,622,403.27	18,864,747.90	
(III) Financial assets												
(1) Shares in affiliates	150,000.00	0.00	0.00	0.00	150,000.00	0.00	0.00	0.00	0.00	150,000.00	150,000.00	
(2) Participating interests	350,788.25	3,500.00	0.00	0.00	354,288.25	80,000.00	0.00	0.00	80,000.00	270,788.25	274,288.25	
(3) Investment securities (book-entry securities)	2,446,682.50	1,517,835.30	664,182.50	0.00	3,300,335.30	56,532.86	0.00	20,682.50	35,850.36	2,390,149.64	3,264,484.94	
Total financial assets	2,947,470.75	1,521,335.30	664,182.50	0.00	3,804,623.55	136,532.86	0.00	20,682.50	115,850.36	2,810,937.89	3,688,773.19	
TOTAL NON-CURRENT ASSETS	65,306,732.28	6,502,117.93	3,104,002.28	0.00	68,704,847.93	44,496,733.12	3,622,357.00	2,441,741.28	45,677,348.84	20,809,999.16	23,027,499.09	

MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2022

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz

The Management Report covers the reporting period of the financial year 2022 from 1 January 2022 to 31 December 2022 and is divided into three sections: I. Report on the course of the Company's business and financial position; II. Report on prospective developments and risks of the Company, and III. Report on research and development.

I. Report on the course of the Company's business and financial position

I.1 Business organisation

As at 31 December 2022 JOANNEUM RESEARCH was organised in seven research units, which represent the main areas of activities.

Research units
DIGITAL – Institute for Information and Communication Technologies
MATERIALS – Institute for Surface Technologies and Photonics
ROBOTICS – Institute for Robotics and Mechatronics
COREMED - Cooperative Centre for Regenerative Medicine
HEALTH – Institute for Biomedicine and Health Sciences
LIFE – Institute for Climate, Energy and Society
POLICIES – Institute for Economic and Innovation Research

I.2 Branches

The Company has no branches.

I.3 Course of business

As at 31 December 2022 the orders on hand amounted to approximately EUR 89.2 million. Work on hand amounted to approximately EUR 49.1 million, the value of offers submitted was approximately EUR 35.5 million. The profit for the financial year 2022 amounts to EUR 298,515.09 (previous year: approximately kEUR 1,222.1). Accordingly, the calculated self-financing ratio (operating result / total expenses) was 80% (previous year: 82%).

The operating result from contract research projects for the financial year 2022 was approximately EUR 16.5 million (previous year: approximately EUR 16.8 million). Funded research projects generated an operating result of approximately EUR 19.5 million (previous year: approximately EUR 18.2 million).

At an international level JOANNEUM RESEARCH generated revenues from contract research projects and funded research projects of approximately EUR 15.3 million in the aggregate in the reporting year (previous year: approximately EUR 12.7 million). An amount of approximately EUR 6.8 million thereof (previous year: approximately EUR 6.2 million) is attributable to projects with the European Union and approximately EUR 8.5 million (previous year: approximately EUR 6.5 million) to contract research projects. Due to the participation of JOANNEUM RESEARCH in the programmes of the European Union and calls for proposals by the European Space Agency (ESA) the Company generated revenues of approximately EUR 0.6 million in the aggregate in the financial year 2022. Under the Horizon Europe programme projects with a funding volume of approximately EUR 10.1 million were awarded to the Company, and in connection with ESA projects an order volume of approximately EUR 1.3 million was solicited.

In the financial year 2022 revenues of approximately EUR 7.9 million (previous year: approximately EUR 6.8 million) were gained through national cooperative research projects related to the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH/FFG).

Under a 2022-2024 funding agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) funds in an amount

of EUR 7.8 million were granted. In the reporting period JOANNEUM RESEARCH generated revenues totalling approximately EUR 2.6 million from BMK.

In the financial year 2022 the attributable business share amounted to EUR 15.9 million.

1.3.1 Financial position

The Company's assets and financing structure developed as follows:

As at the balance sheet date, 31 December 2022, JOANNEUM RESEARCH had a balance sheet total of approximately EUR 66.0 million (previous year: approximately EUR 60.5 million). This is comprised of non-current assets in the amount of approximately EUR 23.0 million and current assets (inclusive of prepayments and accrued income, and escrow funds) of approximately EUR 43.0 million.

As at 31 December 2022 the shareholders' equity including investment grants amounted to around EUR 12.9 million (thereof investment grants of approximately EUR 2.1 million) or 20% of the balance sheet total compared to around EUR 12.5 million or 21% of the previous year's balance sheet total. Borrowings (inclusive of accruals and deferred income, and escrow liabilities) increased by approximately EUR 5.0 million to approximately EUR 53.1 million (previous year: EUR 48.1 million) and amounted to 80% (previous year: 79%) of the balance sheet total.

In the financial year 2022 cash flows from the result as the sum total of generated profit for the year and income and expense items (the Company's internal financing potential) amounted to approximately EUR 3.1 million (previous year: EUR 4.4 million). Working capital (current assets minus short-term borrowings) was approximately EUR 5.2 million (previous year: approximately EUR 8.2 million).

No derivative financial instruments were used in the past financial year 2022. The financial instruments recognised in the balance sheet are part of the Company's general risk management, which is reflected in the bookkeeping and accounting policies.

1.3.2 Financial performance

In the financial year 2022 the operating result including own work capitalised and other operating income net of shareholder contribution and research tax premium amounted to approximately EUR 36.1 million (previous year: approximately EUR 35.3 million).

Domestic revenues accounted for 60% and international revenues accounted for 40% of the operating result generated in projects. The share of the operating result of 12%

generated in projects attributable to Styria did not change compared to the previous year.

In the reporting year advances received for research projects in the amount of EUR 6.4 million were deducted on the face of the balance sheet from services not yet chargeable in the amount of EUR 8.9 million.

The expenses of approximately EUR 49.4 million (previous year: approximately EUR 47.3 million) are made up of staff costs including statutory social security charges and voluntary social benefits plus allocations to pension provisions (former managing director) and severance payments of approximately EUR 34.4 million (previous year: approximately EUR 33.2 million), cost of materials and other services purchased of approximately EUR 3.8 million (previous year: approximately EUR 3.6 million), amortisation and depreciation of approximately EUR 3.6 million (previous year: approximately EUR 3.5 million) and other operating expenses of approximately EUR 7.6 million (previous year: approximately EUR 7.0 million).

As at the balance sheet date the self-financing ratio was 80% (previous year: 82%). The shareholder contributions of the State of Styria, the State of Carinthia through Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. (BABEG), the State of Burgenland through Wirtschaftsagentur Burgenland GmbH, and the Grant Agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) constitute material elements of corporate financing and secure accomplishment of the Company's mission.

The Company closed the financial year 2022 with a profit before taxes (formerly profit or loss on ordinary activities) of EUR 17,844.16. Taking into account income taxes of EUR 1,750.00, reversal of reserves in the amount of EUR 282,420.93 and the profit of EUR 1,607,202.08 carried forward from the previous year, the net profit for the year is EUR 1,905,717.17.

After closing of the accounts for the reporting year no other significant events have occurred which would have affected the Company's financial position or financial performance in the financial year 2022.

1.3.3 Capital expenditure report

In the financial year 2022 approximately EUR 4.6 million (previous year: approximately EUR 2.9 million) were invested in property, plant and equipment (scientific equipment, electronic data processing systems, furniture and fixtures, land with buildings).

II. Report on prospective developments and risks of the Company

Economic policy framework conditions for research and development (R&D)

Looking back, the global economy was characterised by unexpected economic stability in the past calendar year. Despite the continuing geopolitical tensions (the war in Ukraine, the conflict between Taiwan and China), supply shortages, energy price increases, substantial inflation and the related increase in key interest rates and deterioration of the consumer climate the major markets recorded small performance increases. In the third quarter of 2022, the United States of America, for example, recorded economic growth of 0.6% compared to the previous period (WIFO [Austrian Institute of Economic Research] Monthly Report 12/2022). In the second quarter of 2022 the Eurozone achieved a performance increase of 0.8% and even an increase of 0.3% in the third quarter.

The Austrian economy showed a similar development in the past year. In the third quarter of 2022, gross domestic product increased by 0.2% compared to the previous period. Even though measured against the growth in the first two quarters (1.2% and 1.9%) this means only a marginal increase, it is no slump. Due to falling energy prices a slight decline in the inflation rate was reported for the first time last November compared to the previous month (10.6% instead of 11% before). On a positive note, the constant employment growth rate in spite of adverse circumstances has to be mentioned. For both October and November 2022 a growth of 0.3% compared to the previous month was reported.

For the first time since the outbreak of the covid-19 pandemic a global estimate of research and development (R&D) expenditure in Austria was published again. According to the figures available to date total R&D expenditure was above EUR 14.1 billion in the past year (Statistics Austria press release: 12.793-091/22), which means a share of nominal gross domestic product and thus a research share of 3.26%. Fifty-one per cent (51%) of R&D expenditure were paid by domestic businesses (EUR 7.16 billion), 33% of the expenditure were borne by the federal government and the state governments (EUR 4.7 billion), whereas 16% (EUR 2.2 billion) were financed by foreign parties.

Shareholder contributions and Grant Agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Figures in kEUR	Shareholder contribution		Grant Agreement	
	FY 2022	FY 2021	FY 2022	FY 2021
State of Styria	7,700.0	7,900.0		
State of Carinthia	1,579.0	1,674.0		
State of Burgenland	464.5	477.0		
BMK			2,566.9	2,641.0
Total	9,743.5	10,051.0	2,566.9	2,641.0

Risks and prospective development

Cost increases due to inflation will present a major challenge for the financial year 2023. An inflation-related raise of shareholder contributions is being discussed with the owners. However, a large part of the cost increases will need to be covered by generating income in a competitive research market. Due to more competition and almost stagnant funding the framework conditions for funded research projects are expected to become more stringent on the whole, both at a national and an international level. It must be assumed that many research institutions and businesses engaged in research activities will intensify their endeavours to solicit projects in the funded research sector to cover their higher costs. As regards long-term research projects this problem will become even more severe because the future development of inflation is difficult to assess. The shortage of highly qualified staff and shortages in supply chains also constitute challenges.

The new business strategy for the years 2023-2027 takes those difficult framework conditions into account, including by planning measures to expand the Company's market presence and to strengthen its resilience.

For the financial year 2023 JOANNEUM RESEARCH expects a balanced result despite the difficult external framework conditions.

IT security at JOANNEUM RESEARCH

For 2022 a study on this subject showed that 67% of 550 surveyed entities had been victims of cyberattacks (previous year: 60%; comparison of the KPMG studies on "Cyber security in Austria" for 2022 and 2021).

Apart from the technological aspects of a cybercrime incident, be it due to security vulnerabilities or inadequately configured security systems, the human factor constitutes the easiest way to attack.

In terms of the psychological factors gullibility of the victims, lack of awareness of the need for security measures, and the increasing prominence of digital equipment in everyday life are used as attack vectors. Especially in a hybrid work environment, be it working from home, doing mobile work or working at the office, cybersecurity hygiene must be promoted to reduce vulnerability to cyber attacks.

As a company that generates knowledge JOANNEUM RESEARCH faces worldwide competition in some research areas. Accordingly, there is a strategic risk of trade secrets being spied out by competitors or government-related agencies. Inadvertent disclosure of information must also be avoided both at a technical and an organisational level. To this end the Company invests in creating strong awareness among its staff, in comprehensive authorisation concepts, a strict password policy, a private cloud, encryption, and much more.

JOANNEUM RESEARCH's IT constantly wards off attacks to the network or clients and at a social level, and is connected very well. In order to meet the increasing requirements in this area, the Company is investing in appropriate technology as well as in initial and continuing training of its staff.

III. Report on research and development

III.1 Research units

DIGITAL – Institute for Digital Technologies

Activities planned for financial 2023

At DIGITAL researchers with top international connections develop high-tech solutions on the basis of state-of-the-art information and communication technologies. For financial 2023 the Company plans to build another facility in the Lakeside Science & Technology Park in Klagenfurt, the so-called Digital Twin Lab. Activities will be prioritised further to support green transformation in accordance with the Green Deal, in particular mobility transition and a closed-loop economy where resources are used to their maximum capacity. By means of interdisciplinary collaboration supported by the research groups DIGITAL will reinforce its position as a one-stop supplier of information systems. Data collection and sensor technology linked with AI and prediction systems are combined into overall solutions offering secure communication, computing and information management systems.

MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies

Activities planned for financial 2023

MATERIALS focuses on production and surface technologies, photonics and nanotechnology to match the requirements of regional and international businesses, and has been pursuing a strategy of interdisciplinary collaboration for many years. Due to the institute's continued focus on and consistent enhancement of its strengths it has become a much sought-after research partner in Austria and abroad. Long-standing experience, interdisciplinary teams and approaches, the technological focus on topics in which MATERIALS has developed a unique selling proposition, professional handling of funding (applications, project management) and last but not least the successful EU pilot lines and open-innovation test beds are among the institute's core competences.

ROBOTICS – Institute for Robotics and Flexible Production

Activities planned for financial 2023

Starting from financial 2023, ROBOTICS will expand its R&D activities and thus act as an even stronger R&D business partner in the technological field of flexible digitised production at a regional, national and an international level. Accordingly, the R&D portfolio will be expanded to include automated production for covering all areas of flexible production. Developing the thread of automated production will constitute the supplementary basis for this thematic advancement and start with the priority of establishing an application-oriented portfolio of sustainable production automation in financial 2023. For the coming financial year, apart from the activities in national research programmes, it is also planned to push project development within the framework of EU programmes, such as Horizon Europe or EIT Manufacturing.

COREMED – Centre for Regenerative and Precision Medicine

Activities planned for financial 2023

The research focus on cutaneous wound healing and developing pre-clinical models for wound healing and wound healing disorders will be maintained and is planned to be further expanded. COREMED has established in-vivo, ex-vivo and in-vitro models, which are constantly enhanced for and in cooperation with customers. In particular the area of in-vitro skin models is planned to be strengthened further. With respect to the pre-clinical in-vivo portfolio the institute will concentrate on establishing and characterising skin ageing models. The portfolio of in-vitro models is planned to be further expanded and subsequently updated to the state of the art by the implementation of 3D bioprinting of skin constructs. However, COREMED also deals with the sociopolitical and socio-economic effects of ageing.

HEALTH – Institute for Biomedical Research and Technologies

Activities planned for financial 2023

HEALTH sees itself as a link between basic medical research and industrial application and offers interdisciplinary overall solutions as R&D services for the pharmaceutical and medtech industry as well as for the healthcare sector. Its R&D portfolio is guided by the key topics of "dermato-pharmacological research", "neuro-pharmacological research", "metabolic research" and "digital healthcare". Relevant topics include transport of agents through the skin or mucous membranes or across the blood-brain barrier, local effects of drugs, dose-response relationships, the impact of protein binding on the

pharmacological effect of drugs, interactions of tissues and their effect on (patho-) physiological processes, understanding and elucidating inflammatory mechanisms.

LIFE – Institute for Climate, Energy Systems and Society

Activities planned for financial 2023

LIFE distinguishes itself by combining research on the complex nexus of climate, energy and society based on scientific excellence with a strong focus on topics of practical relevance. Against the background of current challenges due to climate, technological, social and spatial changes, LIFE helps to develop decision-making bases and application-oriented solutions for the burning questions of our time. In this context the following key challenges were identified: the challenge of "increasing climate and energy risks", the challenge of a "determined EU climate policy with more fragile international value chains", and the challenge posed by the fact that "without end consumers any technology-driven climate policy blows out".

POLICIES – Institute for Economic, Social and Innovation Research

Activities planned for financial 2023

Against the background of major social transformations, the fundamental mission of POLICIES, namely to provide information and analyses for evidence-based policies and business decisions, will continue to be of great importance. For financial 2023 activities are planned to be intensified in the following areas: research and analysis of interactions in research and innovation ecosystems and/or research and innovation cultures; developing forms of policy consulting in early stages and experimental policy development; developing new approaches to evaluations and evaluation systems and enhancing competences in the field of digitalisation in agriculture. In parallel, the institute plans to constantly expand its activities in the area of labour market research.

Graz, 28 February 2023



The Management:

Heinz Mayer

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH

Auditor's Report

Report on the Financial Statements

Audit Opinion

We have audited the financial statements of

JOANNEUM RESEARCH Forschungsgesellschaft mbH,

Graz.

These financial statements comprise the statement of financial position as of 31 December 2022, the income statement for the fiscal year then ended and the notes.

Based on our audit the accompanying financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Company as of 31 December 2022 and its financial performance for the year then ended in accordance with Austrian Generally Accepted Accounting Principles.

Basis for Opinion

We conducted our audit in accordance with Austrian Standards on Auditing. Those standards require that we comply with International Standards on Auditing (ISAs). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of this auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

Other Information

The financial statements of JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz, as of 31 December 2021 were audited by another auditor, who has provided an unmodified auditor's opinion on 9 March 2022.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH

Responsibilities of Management and of the Supervisory Board for the Financial Statements

Management is responsible for the preparation of the financial statements in accordance with Austrian Generally Accepted Accounting Principles, for them to present a true and fair view of the assets, the financial position and the financial performance of the Company and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Austrian Standards on Auditing and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH

We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH

Comments on the Management Report for the Company

Pursuant to Austrian Generally Accepted Accounting Principles, the management report is to be audited as to whether it is consistent with the financial statements and as to whether the management report was prepared in accordance with the applicable legal regulations.

Management is responsible for the preparation of the management report in accordance with Austrian Generally Accepted Accounting Principles.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the management report.

Opinion

In our opinion, the management report for the Company was prepared in accordance with the valid legal requirements and is consistent with the financial statements.

Statement

Based on the findings during the audit of the financial statements and due to the thus obtained understanding concerning the Company and its circumstances, no material misstatements in the management report came to our attention.

Graz, 28 February 2023



Steirische Prüfungs- und Beratungs GmbH

Dr. Doris Maier

Certified auditor and tax consultant

This report is a translation of the original report in German, which is solely valid.

Publication or sharing with third parties of the financial statements together with our auditor's opinion is only allowed if the financial statements and the management report are identical with the German audited version. This audit opinion is only applicable to the German and complete financial statements with the management report. Section 281 par. 2 UGB (Austrian Company Code) applies to altered versions.

Steirische Prüfungs- und Beratungs GmbH

Consolidated financial statements JOANNEUM RESEARCH

Assets

	31 Dec 2022 EUR	31 Dec 2021 EUR
A. Non-current assets		
I. Intangible assets		
1. Rights and licences	485,654.31	395,068.01
II. Property, plant and equipment		
1. Land and buildings	11,702,313.98	11,764,501.66
2. Technical plant and machinery	5,651,692.15	4,810,337.43
3. Other plant, furniture and fixtures	757,420.88	629,021.70
4. Advances made and construction in progress	934,821.88	542,885.66
	<u>19,046,248.89</u>	<u>17,746,746.45</u>
III. Financial assets		
1. Shares in affiliates	0.00	0.00
2. Participating interests	274,288.25	270,788.25
3. Investment securities (book-entry securities)	3,264,484.94	2,390,149.64
	<u>3,538,773.19</u>	<u>2,660,937.89</u>
	<u>23,070,676.39</u>	<u>20,802,752.35</u>
B. Current assets		
I. Inventories		
1. Raw materials and supplies	3,057.59	3,412.90
2. Finished products and goods	73,215.57	23,851.35
3. Services not yet chargeable less advances received	9,959,939.91 -7,127,441.04	11,196,752.51 -7,798,386.90
4. Advances made	40,662.00	32,189.46
	<u>2,949,434.03</u>	<u>3,457,819.32</u>
II. Receivables and other assets		
1. Trade receivables <i>(thereof due within 1 year</i>	2,166,464.19	1,358,955.12
	<i>2,166,464.19</i>	<i>1,358,955.12)</i>
2. Receivables from undertakings with which the company is linked by virtue of participating interests <i>(thereof due within 1 year</i>	207,043.73	68,544.70
	<i>207,043.73</i>	<i>68,544.70)</i>
3. Receivables from subsidies and project grants <i>(thereof due within 1 year</i>	5,063,753.21	5,133,817.79
	<i>5,063,753.21</i>	<i>5,133,817.79)</i>

Assets

		31 Dec 2022	31 Dec 2021
		EUR	EUR
4. Other receivables and assets		12,341,535.93	11,935,271.94
<i>(thereof due within 1 year</i>	12,339,135.93		11,932,871.94)
<i>(thereof due after more than 1 year</i>	2,400.00		2,400.00)
		<u>19,778,797.06</u>	<u>18,496,589.55</u>
<i>(thereof due within 1 year</i>	19,776,397.06		18,494,189.55)
<i>(thereof due after more than 1 year</i>	2,400.00		2,400.00)
III. Securities and shares			
1. Other securities and shares		0.00	853,997.86
IV. Cash and balances at banks		14,100,047.76	12,177,608.56
		36,828,278.85	34,986,015.29
C. Prepayments and accrued income		3,130,023.91	3,150,088.70
D. Escrow funds		5,226,584.06	3,055,956.60
Total assets		68,255,563.21	61,994,812.94

Liabilities and shareholders' equity

		31 Dec 2022 EUR	31 Dec 2021 EUR
A. Equity			
I.	Share capital called in and paid up	3,600,000.00	3,600,000.00
II.	Capital reserves		
	1. Appropriated	3,866,260.92	4,135,961.85
	2. Unappropriated	362,637.44	362,637.44
		<u>4,228,898.36</u>	<u>4,498,599.29</u>
III.	Retained earnings		
	1. Statutory reserves	360,000.00	360,000.00
	2. Other reserves (free reserves)	837,310.22	875,030.22
		<u>1,197,310.22</u>	<u>1,235,030.22</u>
IV.	Net profit for the year	3,036,540.21	2,665,391.36
	<i>(thereof profit carried forward</i>		<i>1,384,364.59)</i>
	<i>2,665,391.36</i>	<u>12,062,748.79</u>	<u>11,999,020.87</u>
B. Investment grants			
		2,091,629.07	1,698,672.80
C. Provisions			
	1. Provisions for severance pay	6,012,130.00	5,774,300.00
	2. Provisions for pensions	5,893,570.00	5,711,790.00
	3. Tax provisions	7,485,650.00	7,019,750.00
	4. Other provisions	10,304,514.00	10,369,300.00
		<u>29,695,864.00</u>	<u>28,875,140.00</u>
D. Liabilities			
	1. Bank borrowings	1,389,095.21	1,484,625.30
	<i>(thereof due within 1 year</i>	<i>821,283.60</i>	<i>712,193.77)</i>
	<i>(thereof due after more than 1 year</i>	<i>567,811.61</i>	<i>772,431.53)</i>
	2. Advances received on orders	2,431,315.26	2,375,100.72
	<i>(thereof due within 1 year</i>	<i>1,614,009.73</i>	<i>360,778.11)</i>
	<i>(thereof due after more than 1 year</i>	<i>817,305.53</i>	<i>2,014,322.61)</i>
	3. Trade payables	2,672,411.20	1,930,898.73
	<i>(thereof due within 1 year</i>	<i>1,491,555.96</i>	<i>1,032,739.69)</i>
	<i>(thereof due after more than 1 year</i>	<i>1,180,855.24</i>	<i>898,159.04)</i>
	4. Payables to undertakings with which the company is linked by virtue of participating interests	50,180.00	42,000.00
	<i>(thereof due within 1 year</i>	<i>50,180.00</i>	<i>42,000.00)</i>

Liabilities and shareholders' equity

		31 Dec 2022 EUR	31 Dec 2021 EUR
5. Other liabilities		3,042,489.12	2,854,235.31
<i>(thereof due within 1 year</i>	<i>1,655,012.12</i>		<i>1,466,758.31</i>)
<i>(thereof due after more than 1 year</i>	<i>1,387,477.00</i>		<i>1,387,477.00</i>)
<i>(thereof for taxes</i>	<i>419,808.77</i>		<i>416,704.30</i>)
<i>(thereof for social security</i>	<i>1,014,770.81</i>		<i>746,691.14</i>)
		9,585,490.79	8,686,860.06
<i>(thereof due within 1 year</i>	<i>5,632,041.41</i>		<i>3,614,469.88</i>)
<i>(thereof due after more than 1 year</i>	<i>3,953,449.38</i>		<i>5,072,390.18</i>)
E. Accruals and deferred income		9,593,246.50	7,679,162.61
F. Escrow liabilities		5,226,584.06	3,055,956.60
Total liabilities		68,255,563.21	61,994,812.94

	2022 EUR	2021 EUR
1. Revenue	19,642,035.22	16,431,760.31
2. Changes in the amount of services not yet chargeable	-1,236,812.60	1,899,459.27
3. Project-related other income	19,081,400.34	17,735,679.09
4. Shareholder contribution	9,743,500.00	10,051,000.00
5. Other own work capitalised	0.00	52,360.00
6. Other operating income		
(a) Income from disposal of non-current assets except for financial assets	10,357.10	2,840.01
(b) Income from reversal of provisions	450,073.29	590,209.80
(c) Income from reversal of investment grants	411,275.27	396,873.13
(d) Other	3,685,920.51	3,397,695.92
	4,557,626.17	4,387,618.86
7. Cost of materials and other services purchased		
(a) Cost of materials	2,614,565.53	2,323,393.33
(b) Costs of services purchased	1,876,919.56	1,664,481.99
	4,491,485.09	3,987,875.32
8. Cost of staff		
(a) Wages	8,956.36	4,615.64
(b) Salaries	26,818,946.70	26,064,945.42
(c) Social benefits		
(aa) Expenses for old-age provision	528,301.58	450,761.14
(bb) Expenses for severance pay and contributions to Severance Pay and Pension Funds	876,142.78	684,901.66
(cc) Expenses for statutory social security contributions and payroll-related taxes and compulsory contributions	7,287,841.65	7,029,879.10
(dd) Other social benefits	164,902.84	144,279.08
	35,685,091.91	34,379,382.04
9. Amortisation of intangible non-current assets and depreciation of property, plant and equipment	3,686,773.58	3,581,839.33
10. Other operating expenses		
(a) Taxes, other than taxes stated in line 19	9,625.78	11,204.36
(b) Other	7,906,716.68	7,165,970.71
	7,916,342.46	7,177,175.07

	2022 EUR	2021 EUR
11. Subtotal lines 1 to 10 (Operating result)	8,056.09	1,431,605.77
12. Income from investments	3,898.66	3,602.10
13. Income from other securities	21,219.35	14,055.00
14. Other interest and similar income	155,490.38	8,742.35
15. Income from disposal and write-up of financial assets and securities held as current assets	20,337.49	0.00
16. Expenses for financial assets and securities held as current assets		
(a) Write-downs	0.00	158,885.00
(b) Other	70,664.48	46,224.69
	70,664.48	205,109.69
17. Interest and similar expenses	46,859.57	36,073.87
18. Subtotal lines 12 to 17 (Financial result)	83,421.83	-214,784.11
19. Profit or loss before tax (Subtotal lines 11 and 18)	91,477.92	1,216,821.66
20. Income taxes	2,750.00	8,656.00
21. Profit or loss for the year = profit or loss after tax	88,727.92	1,208,165.66
22. Reversal of capital reserves		
(a) Appropriated	269,700.93	260,569.86
23. Reversal of retained earnings		
(a) Other reserves (free reserves)	12,720.00	12,720.00
24. Allocation to retained earnings		
(a) Statutory retained earnings	0.00	-200,428.75
25. Profit carried forward from previous year	2,665,391.36	1,384,364.59
26. Net profit for the year	3,036,540.21	2,665,391.36

		2022 EUR	2021 EUR
1	Profit or loss before tax	91,477.92	1,216,821.66
2	+/- Depreciation, amortisation, write-downs/write-ups of investment assets	3,686,965.87	3,719,039.62
3	-/+ Gain/loss on disposal of investment assets	-12,278.60	8,096.09
4	-/+ Investment income, income from other securities and loans held as financial assets and other interest and similar income/ interest and similar expenses	-82,248.17	66,676.93
5	+/- Other non-cash expenses/income, unless concerning items 7 to 9	-437,788.58	-427,660.18
6	Cash flow from profit or loss	3,246,128.44	4,582,974.12
7	-/+ Increase/decrease in inventories, trade receivables and other assets	355,192.48	1,563,299.92
8	+/- Increase/decrease in provisions	820,724.00	921,346.00
9	+/- Increase/decrease in trade payables and other liabilities	2,654,845.30	-4,738,572.87
10	Net cash flow from profit or loss before tax	7,076,890.22	2,329,047.17
11	- Income taxes paid	-2,750.00	-8,656.00
12	Net cash flow from operating activities	7,074,140.22	2,320,391.17
13	+ Cash inflow from disposal of assets (excluding financial assets)	10,357.10	340.01
14	+ Cash inflow from disposal of financial assets and other financial investments	684,519.99	1,350,000.00
15	- Cash used for additions to assets (excluding financial assets)	-5,095,815.61	-3,233,855.09
16	- Cash used for additions to financial assets and other financial investments	-1,521,335.30	-2,087,782.50
17	+ Cash inflow from investment grants	805,744.85	299,002.41
18	+ Interest received and similar income	176,709.73	22,797.35
19	Net cash flow from investing activities	-4,939,819.24	-3,649,497.82
20	+ Cash inflow from profit distributions	3,898.66	3,602.10
	- Cash used for profit distributions	0.00	0.00
21	+ Cash inflow from taking out finance loans	0.00	0.00
22	- Cash used to redeem bonds and finance loans	-97,082.73	-95,708.41
23	- Interest paid and similar expenses	-118,697.71	-93,076.38
24	Net cash flow from financing activities	-211,881.78	-185,182.69
25	Cash change in cash and cash equivalents (lines 12+17+24)	1,922,439.20	-1,514,289.34
26	+/- Effect of exchange rate changes on and other changes in the value of cash and cash equivalents	0.00	0.00
27	+ Cash and cash equivalents, beginning of period	12,177,608.56	13,691,897.90
28	Cash and cash equivalents, end of period	14,100,047.76	12,177,608.56

JOANNEUM RESEARCH Forschungsgesellschaft mbH

Konzern-Eigenkapitalspiegel

WJ 2021

	Stamm- kapital EUR	Kapital- rücklagen EUR	Gewinn- rücklagen EUR	Bilanzgewinn EUR	Summe Konzernanteil EUR	Summe beherrschende Anteile EUR	Nicht beherrschende Anteile EUR	Summe Eigenkapital EUR
Stand 01.01.2021	3.600.000,00	4.759.169,15	1.082.321,47	1.384.364,59	10.825.855,21	0,00	0,00	10.825.855,21
Jahresüberschuss				1.208.165,66	1.208.165,66			1.208.165,66
Rücklagenveränderungen		-260.569,86	187.708,75	72.861,11	0,00			0,00
Rücklagenveränderung über GuV-Posten			-35.000,00		-35.000,00			-35.000,00
Gesellschafterzuschuss					0,00			0,00
Ausschüttungen					0,00			0,00
Erwerb Tochterunternehmen					0,00			0,00
Stand 31.12.2021	3.600.000,00	4.498.599,29	1.235.030,22	2.665.391,36	11.999.020,87	0,00	0,00	11.999.020,87

Konzern-Eigenkapitalspiegel

WJ 2022

	Stamm- kapital EUR	Kapital- rücklagen EUR	Gewinn- rücklagen EUR	Bilanzgewinn EUR	Summe Konzernanteil EUR	Summe beherrschende Anteile EUR	Nicht beherrschende Anteile EUR	Summe Eigenkapital EUR
Stand 01.01.2022	3.600.000,00	4.498.599,29	1.235.030,22	2.665.391,36	11.999.020,87	0,00	0,00	11.999.020,87
Jahresüberschuss				88.727,92	88.727,92			88.727,92
Rücklagenveränderungen		-269.700,93	-12.720,00	282.420,93	0,00			0,00
Rücklagenveränderung über GuV-Posten			-25.000,00		-25.000,00			-25.000,00
Gesellschafterzuschuss					0,00			0,00
Ausschüttungen					0,00			0,00
Erwerb Tochterunternehmen					0,00			0,00
Stand 31.12.2022	3.600.000,00	4.228.898,36	1.197.310,22	3.036.540,21	12.062.748,79	0,00	0,00	12.062.748,79

**Notes to the consolidated financial statements
for the financial year 2022
of
JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz**

ACCOUNTING AND VALUATION POLICIES

Consolidated financial statements in accordance with Section 244 *et seq.* of the Austrian Business Code [*Unternehmensgesetzbuch/UGB*] were prepared for the first time for the financial year 2019. They are comprised of JOANNEUM RESEARCH Forschungsgesellschaft mbH, Leonhardstrasse 59, 8010 Graz, and JR-AquaConSol GmbH, Steyrergasse 21, 8010 Graz. The total share capital of JR-AquaConSol GmbH in the amount of EUR 150,000.00 is held by JOANNEUM RESEARCH Forschungsgesellschaft mbH. It is fully consolidated in the consolidated financial statements.

General principles

The consolidated company's balance sheet date is 31 December 2022 and the company applies the Group's standard accounting and valuation policies.

The consolidated annual financial statements were prepared in accordance with the provisions of the Austrian Business Code [*Unternehmensgesetzbuch/UGB*] as amended, in accordance with generally accepted accounting principles and the general principle of presenting a true and fair view of the company's financial position and financial performance.

When preparing the consolidated financial statements the principle of completeness was complied with.

Assets and liabilities were measured on a going concern basis according to the principle of item-by-item valuation.

The principle of prudent valuation was taken account of by recognising only the profits realised as at the balance sheet date. All recognisable risks and anticipated losses were taken into consideration.

Consolidation measures

The capital was consolidated at the time of foundation of the subsidiary on 9 June 2016. No differences have resulted from initial consolidation of JR-AquaConSol GmbH in financial 2016. In the course of debt consolidation receivables from and payables to the fully consolidated entity were eliminated. Intra-group expenses and income of the entities included in the consolidated financial statements were segregated. In

the case of intra-group deliveries and services the interim results are eliminated, where necessary. In financial 2022 there were no material interim results.

Non-current assets

Intangible assets

Intangible assets are recognised at cost plus incidental acquisition costs less cash discounts deducted and after amortisation on a straight-line basis. The useful life applied is 3 years (33%) (previous year: 3 to 5 years (20%-33%)).

Property, plant and equipment

Property, plant and equipment is recognised at cost plus incidental acquisition costs less cash discounts deducted and after depreciation.

Public subsidies for non-current assets are presented on the liabilities side as investment grants from public funds. Those investment grants are used analogously to the depreciation of non-current assets.

Amortisation and depreciation is calculated on a straight-line basis according to the following useful lives and rates:

	Useful life in years	Depreciation rate in %
Buildings, including buildings on land owned by others	10 - 40	2.5 - 10
Machinery, scientific equipment and electronic data processing systems	5 - 6 (previous year: 3 - 10)	16.7 - 20 (10 - 33)
Other plant, furniture and fixtures	4 - 10	10 - 25

Full annual depreciation is applied to additions made in the first half of the financial year, and half the yearly rate is applied to additions made during the second half of the year.

Low-value assets as defined in Section 13 of the Austrian Personal Income Tax Act [*Einkommenssteuergesetz/ESStG*] 1988, i.e. the cost of acquisition of which is less or equal to EUR 800 per asset, are fully written off in the year of acquisition and presented as additions and disposals in the non-current assets movement schedule.

Financial assets

Shares in affiliates are measured at cost less impairment losses, where appropriate.

Investment securities are recognised at the lower of cost or fair value at the balance sheet date.

In the reporting year no write-downs of financial assets were made.

Current assets

Inventories

Consumables were measured at the lower of cost or market.

Services not yet chargeable in connection with contract research are calculated on the basis of cost accounting. Project costs are recognised on the basis of an itemisation by cost centre and direct cost statements. Item-by-item valuation at cost of production or acquisition as defined in Section 206 *UGB* is applied. Apart from the costs attributable according to the costs-by-cause principle, production costs also include pro rata production overheads that can be capitalised and portions of social expenses as defined in the second to last sentence of Section 206(3) *UGB*. Interest expenses and the research risk are not accounted for.

Due to the company's project structure administrative overheads must be capitalised for projects with a term of more than twelve months. In order to give a true and fair view of the company's financial position and financial performance, the option right (cf. Section 206(3) *UGB*) was exercised.

If losses are anticipated in connection with orders or if additional costs are expected to be incurred for services that have been invoiced already, semi-finished products will be discounted or provisions set up. For contingent warranty obligations in connection with contract research provisions are recognised in the balance sheet as well.

Receivables and other assets

Receivables and other assets are measured at nominal value unless the lower fair value is recognised in the case of specific recognisable risks. Provisions for general credit risks are made in the form of general allowances at a rate of 2% (previous year: 2%) of total net receivables.

Provisions

Provisions for severance pay are calculated according to principles of financial mathematics on the basis of the 10-year average interest rate with a term of fifteen years. Calculation of the provision for severance pay was based on an interest rate of 1.78% (previous year: 1.87%) as at 31 December 2022, a salary trend of 2.97% (previous year: 2.78%) and a retirement age of 65 years on a going-concern basis.

No fluctuation discount was recognised.

The **pension provision** is calculated in the amount of the actuarial cover requirement on the basis of the provisions of Section 198 and Section 211 *UGB* as amended by the Austrian Act on Changes in Accounting Practices [*Rechnungslegungs-Änderungsgesetz/RÄG*] 2014 in compliance with the AFRAC Opinion on "Provisions for pension, severance pay, long-service bonus and comparable long-term obligations under *UGB* provisions". The calculation was based on the "AVÖ 2018-P *Rechnungsgrundlagen für die Pensionsversicherung*" actuarial reference tables for pension insurance. The calculatory interest rate used was the 10-year average interest rate of 1.56% (previous year: 1.62%) with an average remaining term of ten years.

Other provisions take into account all recognisable risks and liabilities the amount of which is contingent and are recognised at the amounts which, according to best estimate, must be used to fulfil the obligation. No provisions other than those provided for by law are set up.

Changes in provisions concerning a reversal of provisions are recognised in item 6(b) and allocations to provisions are stated in item 8(c) if they are attributable to staff costs; all others are recognised as other operating expenses in item 10(b) of the income statement.

Liabilities

Liabilities are recognised at the settlement value in compliance with the principle of prudence.

Currency translation

Receivables and payables are measured at the mean rate of exchange at the date of the transaction and according to the lower of cost or market principle or higher of cost or market principle at the balance sheet date, respectively.

NOTES TO THE BALANCE SHEET

ASSETS

NON-CURRENT ASSETS

As to the development of the different non-current assets and the breakdown of annual amortisation and depreciation reference is made to the non-current assets movement schedule (Annex to the Notes). As at the balance sheet date non-current assets amounted to EUR 23,070,676.39 (previous year: kEUR 20,802.8) in total. In the financial year 2022 capital expenditure amounted to a total of EUR 6,617,150.91 (previous year: kEUR 5,321.6) and amortisation and depreciation amounted to EUR 3,686,965.87 (previous year: kEUR 3,719.0). In the financial year 2022 disposals at historical cost amounted to EUR 3,109,846.60 (previous year: kEUR 2,051.7).

Intangible assets include software and data transmission rights of a carrying amount of EUR 485,654.31 (previous year: kEUR 395.1). Additions of EUR 388,271.19 (previous year: kEUR 314.3) are attributable to the acquisition of licences and various software.

As at the balance sheet date **property, plant and equipment** amounted to EUR 19,046,248.89 (previous year: kEUR 17,746.7). The land value was EUR 2,877,794.02 (previous year: kEUR 2,877.8). The building value of land with buildings and buildings on land owned by others of EUR 8,824,519.96 (previous year: kEUR 8,886.7) is made up of the net building value of EUR 3,628,419.00 (previous year: kEUR 3,751.9) and structural improvements worth EUR 3,222,519.00 (previous year: kEUR 3,065.6), i.e. EUR 6,850,938.00 (previous year: kEUR 6,817.5) are attributable to buildings on land owned by the company and an amount of EUR 1,973,581.96 (previous year: kEUR 2,069.2) is attributable to capital expenditure on buildings owned by others. Additions in a total amount of EUR 4,707,544.42 (previous year: kEUR 2,919.6) mainly concern the provision of modern scientific equipment for the company's research activities and further expansion of the IT infrastructure. Disposals at historical cost in the amount of EUR 2,216,226.87 (previous year: kEUR 667.0) mainly concern disposals or, to a small extent, sale of scientific equipment, electronic data processing systems and various office equipment. No impairment losses were recognised.

According to the statement of investments the following **participating interests** are held:

Statement of Investments as at 31 December 2022

	Interest		Equity EUR	Net profit or loss in EUR	Balance sheet date
	EUR	%			
ACIB GmbH	16,000.00	8.00%	4,655,717.02	170,327.22	31 Dec 2021
ALP.Lab GmbH	9,100.00	20.00%	25,264.91	-9,735.09	31 Dec 2021
BEST - Bioenergy and Sustainable Technologies GmbH	20,000.00	10.00%	1,948,826.77	1,713,472.84	31 Mar 2022
CBmed GmbH	25,000.00	12.50%	2,470,286.11	2,270,286.11	31 Dec 2021
decide Clinical Software GmbH	42,500.00	10.00%	63,398.56	-361,601.44	31 Dec 2021
DIH SÜD GmbH	9,100.00	26.00%	502,422.74	0.00	31 Dec 2021
EPIG GmbH	8,750.00	25.00%	348,718.13	313,718.13	31 Dec 2021
FH JOANNEUM Gesellschaft mbH	10,828.25	14.90%	4,000,000.00	0.00	30 Jun 2022
Geo5 GmbH	8,000.00	10.00%	139,483.49	59,483.49	31 Dec 2021
Holz.Bau Forschungs GmbH	3,500.00	5.98%	414,124.00	355,624.00	31 Dec 2021
Human.technology Styria GmbH	2,450.00	7.00%	199,656.02	-1,007.81	31 Dec 2021
Know-Center GmbH Research Center for Data-Driven Business & Big Data Analytics	14,540.00	10.00%	1,547,316.55	0.00	31 Dec 2021
Materials Center Leoben Forschung GmbH	51,100.00	17.50%	7,801,151.66	793,901.34	31 Dec 2021
Pacemaker Technologies GmbH	1,050.00	3.00%	2,453.01	-32,546.99	31 Dec 2021
Polymer Competence Center Leoben GmbH	34,000.00	17.00%	5,897,086.70	235,876.35	31 Dec 2021
Rebeat Innovation GmbH	80,000.00	1.70%	n.a.	n.a.	bankruptcy
Research Center Pharmaceutical Engineering GmbH	15,000.00	15.00%	5,596,869.60	901,969.60	30 Jun 2022
Virtual Vehicle Research GmbH	10,640.00	8.40%	7,201,213.05	1,132,008.72	31 Dec 2021

As at the balance sheet date the carrying amount of **investment securities** was EUR 3,264,484.94 (previous year: kEUR 2,390.1).

Write-up or revaluation

In the reporting year the company refrained from recording a write-down of financial assets of EUR 603,217.30.

Amortisation and depreciation of the remaining non-current assets completely result from ordinary amortisation and depreciation.

CURRENT ASSETS

Inventories

The item **raw materials and supplies** in the amount of EUR 3,057.59 (previous year: kEUR 3.4) is made up of consumables (mainly toners, computer network cards, laser printer spare parts and various small items of equipment).

The item **services not yet chargeable** in connection with contract research mainly includes work in progress and services not yet chargeable in the amount of EUR 2,832,498.87 (previous year: kEUR 2,695.7), under which administrative overheads of EUR 1,970,812.13 (previous year: kEUR 2,002.7) were capitalised for contracts the execution of which lasts more than twelve months. The company's project structure requires such capitalisation of administrative overheads to present a true and fair as well as a continuing view of the company.

In the reporting year the advances received on research projects in the amount of EUR 7,127,441.04 (previous year: kEUR 7,798.4) were deducted. The excess amount of EUR 2,431,315.26 (previous year: kEUR 2,375.1) was recognised on the liabilities side.

Advances made on inventories amount to EUR 40,662.00 (previous year: kEUR 32.2).

Receivables and other assets

	Receivables as at 31 Dec 2022 (31 Dec 2021)	thereof due after more than 1 year	thereof evidenced by bills of exchange	Capitalised accruals Section 225(3) UGB	General allowance
	EUR	EUR	EUR	EUR	EUR
Trade receivables	2,166,464.19 (1,358,955.12)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	38,000.00 (21,400.00)
Receivables from undertakings with which the Company is linked by virtue of participating interests or book-entry securities	207,043.73 (68,544.70)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Receivables from the owners	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Receivables from subsidies and project grants	5,063,753.21 (5,133,817.79)	0.00 (0.00)	0.00 (0.00)	5,063,753.21 (5,133,817.79)	0.00 (0.00)
Receivables from the liability commitment of the State of Styria	5,600,000.00 (5,600,000.00)	0.00 (0.00)	0.00 (0.00)	5,600,000.00 (5,600,000.00)	0.00 (0.00)
Other receivables and assets	6,741,535.93 (6,335,271.94)	2,400.00 (2,400.00)	0.00 (0.00)	6,680,109.40 (6,254,222.58)	0.00 (0.00)
TOTAL	19,778,797.06 (18,496,589.55)	2,400.00 (2,400.00)	0.00 (0.00)	17,343,862.61 (16,988,040.37)	38,000.00 (21,400.00)

Itemised allowances in the amount of EUR 1,028,673.44 (previous year: kEUR 1,014.7) were made for doubtful **trade receivables** and deducted from the assets.

Receivables from subsidies and project grants concern grant approvals from various funding agencies. Due to the fact that processing, including receipt of payment, takes more than three months, a discount in the amount of EUR 11,800.00 (previous year: kEUR 8.1) was made. The calculatory interest rate was 0.52% (previous year: 0.4%).

Other receivables and assets mainly include receivables from the Tax Office for Large Enterprises, various interest accrued, as well as refunds and aids. This item also includes a liability commitment of the State of Styria in the amount of EUR 5,600,000.00 (previous year: kEUR 5,600.0) to cover the loss from the tax audit by the Tax Office of Graz-Stadt, and claims vis-à-vis the Tax Office of Graz-Stadt from research allowances in the amount of EUR 6,270,645.46 (previous year: kEUR 5,962.6).

Securities held as current assets

Securities held as current assets in the previous year's amount of EUR 853,997.86 were transferred to non-current assets.

Cash and balances at banks

This item in the amount of EUR 14,100,047.76 (previous year: kEUR 12,177.6) is made up of **cash** in the amount of EUR 7,285.25 (previous year: kEUR 7.7) and **bank balances** of EUR 14,092,762.51 (previous year: kEUR 12,169.9).

PREPAYMENTS AND ACCRUED INCOME

Prepayments and accrued income in the amount of EUR 3,130,023.91 (previous year: kEUR 3,150.1) include payments made in the financial year 2022 which have to be charged as expenses in the following year and mainly concern prepayments of maintenance expenses, various subscriptions and membership fees, insurance premiums and congress fees. In addition, this item includes a prepayment of rent in the amount of EUR 2,802,187.37 (previous year: kEUR 2,878.4).

ESCROW FUNDS

Escrow funds include balances at banks for projects with the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH) and the European Commission, where JOANNEUM RESEARCH Forschungsgesellschaft mbH acts as the coordinator and holds the funds in escrow and manages payments for the project partners (see escrow liabilities).

LIABILITIES AND SHAREHOLDERS' EQUITY

SHAREHOLDERS' EQUITY

The company's **share capital** amounts to EUR 3,600,000.00 (previous year: kEUR 3,600.0), of which 80.75% (previous year: 80.75%) or EUR 2,907,000.00 (previous year: kEUR 2,907.0) are held by the State of Styria, 14.25% (previous year: 14.25%) or EUR 513,000.00 (previous year: kEUR 513.0) by BABEG - Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H., and 5% (previous year: 5%) or EUR 180,000.00 (previous year: kEUR 180.0) of the share capital are held by Wirtschaftsagentur Burgenland GmbH (until 31 December 2021: Landesholding Burgenland GmbH pursuant to a resolution passed at the meeting of the Burgenland State Government on 27 April 2022).

Taking into account the **profit for the year** of EUR 371,148.85 (previous year: EUR 1,281,026.77) and the profit carryforward in the amount of EUR 2,665,391.36 (previous year: EUR 1,384,364.59) the resulting **net profit for the year** is EUR 3,036,540.21 (previous year: EUR 2,655,391.36).

APPROPRIATED CAPITAL RESERVE

Both in the Participation and Cooperation Agreement with BABEG - Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. of 18 December 2014 and in the Participation and Cooperation Agreement with Wirtschaftsagentur Burgenland GmbH of 20 April 2018 the shareholders agreed that the **appropriated capital reserve** be reversed as stipulated.

In financial 2022 a shareholder contribution of EUR 25,000.00 by BABEG – Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H., which had been carried forward from financial 2021, was reversed.

SPECIAL ITEMS FOR INVESTMENT GRANTS FROM PUBLIC FUNDS

In the reporting year **investment grants from public funds** developed as follows:

	As at 1 Jan 2022 EUR	Additions EUR	Consumption according to depreciation EUR	Reversal EUR	Reclassifi- cation or corrections EUR	As at 31 Dec 2022 EUR
Property, plant and equipment						
1. Buildings, including buildings on land owned by others	1,077,313.00	205,942.78	-133,189.75	0.00	4,661.66	1,154,727.69
2. Machinery, scientific equipment and electronic data processing systems	610,116.21	590,662.40	-274,582.43	-1,842.81	0.00	924,353.37
3. Other plant, furniture and fixtures	11,243.59	9,139.67	-3,016.09	-157.50	-4,661.66	12,548.01
Financial assets						
1. Financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Total	1,698,672.80	805,744.85	-410,788.27	-2,000.31	0.00	2,091,629.07

Covid-19 investment grants were taken into account also in the reporting year 2022.

PROVISIONS

An amount of EUR 58,559.00 (previous year: kEUR 118.6) of the **provisions for severance pay** was used and an amount of EUR 0.00 (previous year: kEUR 115.8) was reversed. In order to meet the cover requirement of EUR 6,012,130.00 (previous year: kEUR 5,774.3), an amount of EUR 296,389.00 (previous year: kEUR 446.8) was allocated to the provision.

An amount of EUR 346,521.58 (previous year: kEUR 330.5) of the **pension provisions** (former managing director) was used for pension payments. In order to meet the actuarial cover requirement of EUR 5,893,570.00 (previous year: kEUR 5,711.8), an amount of EUR 528,301.58 (previous year: kEUR 432.3) had to be allocated to the provision.

The item **provision for taxes** in the amount of EUR 7,845,650.00 (previous year: EUR 7,019,750.00) primarily concerns additional tax claims resulting from the tax audit in connection with the temporary loss of the status of a non-profit organisation in the amount of EUR 4,731,700.00 (previous year: kEUR 4,731.7), additional tax claims in the amount of EUR 2,658,400.00 (previous year: kEUR 2,192.5) resulting from the tax audit in connection with the division of input taxes into a business part and a non-business part, and additional tax claims resulting from the tax audit in connection with VAT treatment of services provided for the State of Styria in the field of "locational positioning" in the amount of EUR 95,300.00 (previous year: kEUR 95.3).

Other provisions include as main items the provision for unconsumed annual leave in the amount of EUR 2,562,891.00 (previous year: kEUR 2,489.8), provisions for potential claims for refund of various funding parties in the amount of EUR 1,220,300.00 (previous year: kEUR 1,175.1), the provision for working time credits in the amount of EUR 812,593.00 (previous year: kEUR 840.4) and the provision for anticipated losses or costs of work in progress in the amount of EUR 654,030.00 (previous year: kEUR 730.3).

This item also includes the **provision for the tax audit** by the Tax Office of Graz-Stadt in the amount of EUR 3,980,700.00 (previous year: kEUR 3,980.7).

LIABILITIES

The item **bank borrowings** in the amount of EUR 1,389,095.21 (previous year: kEUR 1,484.6) mainly includes an export fund credit line of EUR 712,193.77 (previous year: kEUR 712.2) and a loan for the acquisition of the property EZ [folio number] 458 GB [Land Register] 60340 in Niklasdorf with a remaining term of up to one year in the amount of EUR 137,680.25 and with a remaining term of more than five years in the amount of EUR 537,664.20 (previous year: kEUR 772.4).

Advances received which cannot be deducted from inventories in the reporting year amounted to EUR 2,431,315.26 (previous year: kEUR 2,375.1) net and were offset together with the advances received in connection with services not yet chargeable against the relating items of inventories.

As at the balance sheet date **trade payables** were EUR 2,672,411.20 (previous year: kEUR 1,930.9), predominantly to Austrian suppliers.

Other liabilities include the profit-participating loan granted by the State of Styria on 1 November 2004 in the amount of EUR 1,387,477.00 (previous year: kEUR 1,387.5). In addition, this item mainly includes clearing funds with the Austrian Health Insurance Fund [*Österreichische Gesundheitskasse/ÖGK*] and other necessary deferrals. Advances made by funding parties in the amount of EUR 7,509,860.76, which were recorded under this item in the previous year, are for the first time recognised under **accruals and deferred income**.

Other liabilities include expenses in the amount of EUR 1,730,433.43 (previous year: kEUR 1,524.6), which will be paid only after the balance sheet date.

Other financial obligations

Based on the Grant Agreement of the Office of the Styrian Government, Department 8, Health, Care and Science, by decision of the Styrian Government of 29 April 2021, reference number: ABT08-129749/2021-6, funding of a shareholder contribution of JOANNEUM RESEARCH Forschungsgesellschaft mbH to DIH Süd GmbH of a total amount of EUR 900,000.00 for the period from 1 April 2021 to 31 March 2024 was approved and granted.

Obligations arising from use of property, plant and equipment not presented in the balance sheet:

	for the next financial year	for financial years 2023 to 2027
	EUR	EUR
Room rents	1,013,405.00	5,067,027.00
(previous year)	(933,699.00)	(4,668,497.00)
Equipment rents	51,845.00	229,724.00
(previous year)	(91,896.00)	(347,381.00)
Total	1,065,250.00	5,296,751.00
(previous year)	(1,025,595.00)	(5,015,878.00)

ACCRUALS AND DEFERRED INCOME

Accruals and deferred income in the amount of EUR 9,593,246.50 (previous year: kEUR 169.3) include royalties. For the first time this item also includes advances of EUR 9,570,146.74 (previous year: kEUR 7,509.9 recognised under other liabilities) made by funding parties.

ESCROW LIABILITIES

Escrow liabilities result from projects with the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH) or the European Commission, where JOANNEUM RESEARCH Forschungsgesellschaft mbH acts as the coordinator and holds the funds in escrow and manages payments for the project partners (see escrow funds).

CONTINGENT LIABILITIES

(cf. in this respect Other disclosures, Contingencies).

NOTES TO THE INCOME STATEMENT

Revenues generated in the financial year 2022 are classified according to areas of activity and divided into domestic and international revenues:

Amounts in EUR	Financial year 2022	Financial year 2021
Domestic revenues		
Research	7,044,842.08	7,004,011.47
Royalties	1,274,811.77	994,723.96
Congress fees	8,528.57	2,289.40
Other	1,828,838.73	1,657,647.53
Total domestic revenues	10,157,021.15	9,658,672.36
International revenues		
Research	9,353,867.86	6,650,379.45
Royalties	54,002.87	84,516.00
Congress fees	62,301.67	0.00
Other	14,841.67	38,192.50
Total international revenues	9,485,014.07	6,773,087.95
Total revenues	19,642,035.22	16,431,760.31

The expenses of EUR 876,142.78 (previous year: kEUR 684.9) stated in item 8.(bb) include contributions to Severance Pay and Pensions Funds in the amount of EUR 294,297.55 (previous year: kEUR 290.1) and expenses for severance payments in the amount of EUR 581,845.23 (previous year: kEUR 394.8).

OTHER DISCLOSURES

Shares in affiliates

As at the balance sheet date 31 December a participating interest of 25% of the shares or EUR 8,750.00 (previous year: kEUR 8.8) was held in EPIG GmbH. The financial statements for the year ended 31 December 2021 show equity in the amount of EUR 348,718.13 (previous year: EUR 288,170.07), which includes a net profit for the year of EUR 313,718.13 (previous year: EUR 253,170.07).

In addition, the company held another participating interest of 26% of the shares or EUR 9,100.00 in DIH Süd GmbH as at the balance sheet date 31 December. The financial statements for the year ended 31 December 2021 (short financial year) show equity in the amount of EUR 502,422.74 and a net profit for the year of EUR 0.00.

Due to the capital increase (subscription statement of 4 May 2022) the participating interest in ALP.Lab GmbH increased to 20% (previous year: 16%) or EUR 9,100.00 (previous year: EUR 5,600.00) as at the balance sheet date 31 December. The financial statements for the year ended 31 December 2021 show equity in the amount of EUR 25,264.91 (previous year: EUR 60,959.32), which includes a net loss for the year of EUR 9,735.09 (previous year: net profit for the year of EUR 25,959.32).

All other participating interests are below 20%.

Staff

As at the balance sheet date the company had 508 (previous year: 497) employees; taking part-time employees into account on a pro-rata basis, the number of staff was 421.0 (previous year: 414.5). Taking part-time employees into account on a pro-rata basis, the average number of employees was 418.5 (previous year: 414.8).

In application of the provisions of Section 242(4) *UGB* no itemisation of salaries, severance pay or pensions for the management as defined in Section 239(1) *UGB* was made in the previous year. As at the balance sheet date of the reporting year expenses for old-age provision in the amount of EUR 528,301.58 (previous year: kEUR 450.8) for former managing directors were recognised.

No loans or advances were granted to members of the management or the supervisory board. No liability in favour of that group of persons was assumed either.

The cost of remuneration of members of the Scientific Advisory Board and of the supervisory board amounted to EUR 112,252.44 (previous year: kEUR 110.2) in total.

Events after the balance sheet date

After closing of the accounts for the reporting year no other significant events occurred which would have affected the financial position or financial performance in the financial year 2022.

Bodies of the parent in the financial year 2022:

SCIENTIFIC ADVISORY BOARD

Gerald SCHÖPFER
Chairman

Gerhard FRIEDRICH
Deputy Chairman

Gernot HANREICH
Deputy Chairman

Hansjörg ALBRECHER

Horst BISCHOF

Michaela FRITZ

Günter GETZINGER

Manfred HUSTY h.c. Manfred HUSTY

Mario MÜLLER

Michael PATAK

Reinhard PETSCHACHER

Herbert RITTER

Karin SCHAUPP

Waltraud SCHINKO-NEUROTH

Caroline SCHOBER

Stefan TASCH

Frank UHLIG

Management:

Heinz Mayer

SUPERVISORY BOARD

Martin WIEDENBAUER
Chairman

Fritz SPERL
Deputy Chairman

Erlfried TAURER
Deputy Chairman

Klaus HATZL

Werner HAUSER

Alexandra HÖRMANN
(until 30 April 2022, Business Register entry as of
1 June 2022)

Michaela KRENN

Rupert PICHLER

Bettina SCHRITTWIESER
(since 30 April 2022, Business Register entry as of
1 June 2022)

Birgit STRIMITZER-RIEDLER

Members delegated to the supervisory board by the works council:

Ferdinand GOLJA, Chairman of the Works Council

Clemens HABSBURG-LOTHRINGEN

Helen HASENAUER

Maria HINGSAMER

Gertrude MATZER

Contingencies

Pursuant to Section 199 *UGB* guarantees for rent security deposits vis-à-vis Zentrum für Wissens- und Technologietransfer in der Medizin GmbH (EUR 110,890.00), W.E.I.Z. Immobilien GmbH (EUR 38,019.46), SFL technologies Science Tower GmbH (EUR 36,000.00) and Lakeside Science & Technology Park GmbH (EUR 1,521.60) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs Aktiengesellschaft (EUR 63,958.47) and an advance payment guarantee vis-à-vis Glock GmbH (EUR 6,875.00) are presented below the balance sheet.

Pursuant to Section 199 *UGB* guarantees for rent security deposits vis-à-vis Zentrum für Wissens- und Technologietransfer in der Medizin GmbH (EUR 110,890.00), W.E.I.Z. Immobilien GmbH (EUR 38,019.46) and SFL technologies Science Tower GmbH (EUR 36,000.00) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs Aktiengesellschaft (EUR 73,706.27) and Stummer Kommunalfahrzeuge Ges.m.b.H (EUR 122,306.25) were presented below the balance sheet in the previous year.

The securities account has been pledged in favour of Steiermärkische Bank und Sparkassen Aktiengesellschaft.

Other information

Based on the objectives defined in Article 1(3) of the Articles of Association the company pursues the aim of furtherance of the general public in the fields of research, development and science exclusively and directly in the interest of public welfare. No net profit that may be generated will be distributed.

According to a decision of the Finance Authority for the State of Styria dated 16 January 1995, reference no. 29/31-10/94, JOANNEUM RESEARCH Forschungsgesellschaft mbH belongs to the group of preferential recipients as defined in Section 4(4) No. 5(e) *EStG* 1988 as amended by Art. I No. 4(a) of the Austrian Tax Reform Act [*Steuerreformgesetz*] 1993.

The expenses for the statutory auditor for auditing the consolidated financial statements amounted to EUR 18,000.00 (previous year: EUR 18,000.00). No other certification services, tax advisory services or other services of the statutory auditor were rendered in the reporting year or in the previous year.

Graz, 3 March 2023

The Management



Heinz Mayer

Consolidated non-current assets movement schedule

JOANNEUM RESEARCH Forschungsgesellschaft mbH

FY 2022

DEVELOPMENT OF NON-CURRENT ASSETS	Cost of acquisition						Accumulated amortisation and depreciation						Carrying amounts	
	1 Jan 2022 EUR	Additions EUR	Disposals EUR	Reclassification EUR	31 Dec 2022 EUR	1 Jan 2022 EUR	Additions EUR	Disposals EUR	31 Dec 2022 EUR	31 Dec 2021 EUR	31 Dec 2022 EUR			
(I) Intangible assets														
Software, data transmission rights and other rights	3,588,008.80	388,271.19	229,437.23	44,470.00	3,791,312.76	3,192,940.79	342,154.89	229,437.23	3,305,658.45	395,068.01	485,654.31			
Total Intangible assets	3,588,008.80	388,271.19	229,437.23	44,470.00	3,791,312.76	3,192,940.79	342,154.89	229,437.23	3,305,658.45	395,068.01	485,654.31			
(II) Property, plant and equipment														
(1) Land, rights equivalent to land and buildings, including buildings on land owned by others	2,877,794.02	0.00	0.00	0.00	2,877,794.00	0.00	0.00	0.00	2,877,794.00	2,877,794.02	2,877,794.02			
(a) Land value	19,418,930.03	595,428.37	41,555.13	68,738.59	20,041,541.86	10,533,222.39	726,210.64	41,411.13	11,217,021.90	8,886,707.64	8,824,519.96			
(b) Building value														
Subtotal land and buildings	22,296,724.05	595,428.37	41,555.13	68,738.59	22,919,335.88	10,533,222.39	726,210.64	41,411.13	11,217,021.90	11,764,501.66	11,702,313.98			
(2) Machinery, scientific equipment and EDP systems	32,368,847.14	2,703,343.81	1,900,079.80	391,153.65	33,563,264.80	27,558,509.71	2,235,754.74	1,882,691.80	27,911,572.65	4,810,337.43	5,651,692.15			
(3) Other plant, furniture and fixtures	3,910,540.59	372,133.86	142,232.32	7,980.30	4,148,422.43	3,281,518.89	250,485.98	141,003.32	3,391,001.55	629,021.70	757,420.88			
(4) Advances made and construction in progress	598,883.66	907,178.21	0.00	-568,340.54	937,721.33	0.00	0.00	0.00	0.00	598,883.66	937,721.33			
Offsetting of input tax on advances for non-current assets	-55,998.00	-2,899.45	0.00	55,998.00	-2,899.45	0.00	0.00	0.00	0.00	-55,998.00	-2,899.45			
Subtotal advances made and construction in progress	542,885.66	904,278.76	0.00	-512,342.54	934,821.88	0.00	0.00	0.00	0.00	542,885.66	934,821.88			
(5) Low-value assets	0.00	132,359.62	132,359.62	0.00	0.00	0.00	132,167.33	132,167.33	0.00	0.00	0.00			
Total property, plant and equipment	59,118,997.44	4,707,544.42	2,216,226.87	-44,470.00	61,565,844.99	41,372,250.99	3,344,618.69	2,197,273.58	42,519,596.10	17,746,746.45	19,046,248.89			
(III) Financial assets														
(1) Shares in affiliates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
(2) Participating interests	350,788.25	3,500.00	0.00	0.00	354,288.25	80,000.00	0.00	0.00	80,000.00	270,788.25	274,288.25			
(3) Investment securities (book-entry securities)	2,446,682.50	1,517,835.30	664,182.50	0.00	3,300,335.30	56,532.86	0.00	20,682.50	35,850.36	2,390,149.64	3,264,484.94			
Total financial assets	2,797,470.75	1,521,335.30	664,182.50	0.00	3,654,623.55	136,532.86	0.00	20,682.50	115,850.36	2,660,937.89	3,538,773.19			
TOTAL NON-CURRENT ASSETS	65,504,476.99	6,617,150.91	3,109,846.60	0.00	69,011,781.30	44,701,724.64	3,686,773.58	2,447,393.31	45,941,104.91	20,802,752.35	23,070,676.39			

GROUP MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2022

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz

The Management Report covers the reporting period of the financial year 2022 from 1 January 2022 to 31 December 2022 and is divided into three sections: I. Report on the course of the Group's business and financial position; II. Report on prospective developments and risks of the Group, and III. Report on research and development.

I. Report on the course of the Group's business and financial position

I.1 Business organisation

As at 31 December 2022 JOANNEUM RESEARCH was organised in seven research units, which represent the main areas of activities.

Research units
DIGITAL – Institute for Information and Communication Technologies
MATERIALS – Institute for Surface Technologies and Photonics
ROBOTICS – Institute for Robotics and Mechatronics
COREMED - Cooperative Centre for Regenerative Medicine
HEALTH – Institute for Biomedicine and Health Sciences
LIFE – Institute for Climate, Energy and Society
POLICIES – Institute for Economic and Innovation Research

In financial 2022 JR-AquaConSol GmbH (JR-AquaConSol), being a wholly-owned subsidiary of JOANNEUM RESEARCH, was divided into the areas of services in water resource management, hydrogeochemistry, and laboratory analytics with a focus on measuring stable isotopes of the water cycle and lysimeter systems.

I.2 Branches

The Group has no branches.

I.3 Course of business

As at 31 December 2022 the orders on hand amounted to approximately EUR 95.3 million. Work on hand amounted to approximately EUR 50.0 million, the value of offers submitted was approximately EUR 41.5 million. The profit for the financial year 2022 amounts to EUR 371,148.85 (previous year: approximately kEUR 1,281.0).

The operating result from contract research projects for the financial year 2022 was approximately EUR 18.7 million (previous year: approximately EUR 18.7 million). Funded research projects generated an operating result of approximately EUR 19.6 million (previous year: approximately EUR 18.2 million).

At an international level the Group generated revenues from contract research projects and funded research projects of approximately EUR 16.1 million in the aggregate in the reporting year (previous year: approximately EUR 12.9 million). An amount of approximately EUR 6.8 million thereof (previous year: approximately EUR 6.1 million) is attributable to projects with the European Union and approximately EUR 9.5 million (previous year: approximately EUR 6.8 million) to contract research projects. Due to its participation in programmes of the European Union and calls for proposals by the European Space Agency (ESA) the Group generated revenues of approximately EUR 0.6 million in the aggregate in the financial year 2022. Under the Horizon Europe programme projects with a funding volume of approximately EUR 10.1 million were awarded to the Group, and in connection with ESA projects an order volume of approximately EUR 1.3 million was solicited.

In the financial year 2022 revenues of approximately EUR 7.9 million (previous year: approximately EUR 6.8 million) were gained through national cooperative research projects related to the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft mbH/FFG).

Under a 2022-2024 funding agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) funds in an amount of EUR 7.8 million were granted. In the reporting period the Group generated revenues totalling approximately EUR 2.6 million from BMK.

1.3.1 Financial position

The Group's assets and financing structure developed as follows:

As at the balance sheet date, 31 December 2022, the Group had a balance sheet total of approximately EUR 68.3 million (previous year: approximately EUR 62.0 million). This is comprised of non-current assets in the amount of approximately EUR 23.1 million and current assets (inclusive of prepayments and accrued income, and escrow funds) of approximately EUR 45.2 million.

As at 31 December 2022 the shareholders' equity including investment grants amounted to around EUR 14.2 million (thereof investment grants of approximately EUR 2.1 million) or 21% of the balance sheet total compared to around EUR 13.7 million or 22% of the previous year's balance sheet total. Borrowings (inclusive of accruals and deferred income, and escrow liabilities) increased by approximately EUR 5.8 million to approximately EUR 54.1 million (previous year: EUR 48.3 million) and amounted to 79% (previous year: 78%) of the balance sheet total.

In the financial year 2022 cash flows from the result as the sum total of generated profit for the year and income and expense items (the company's internal financing potential) amounted to approximately EUR 3.2 million (previous year: EUR 4.6 million). Working capital (current assets minus short-term borrowings) was approximately EUR 6.5 million (previous year: approximately EUR 9.4 million).

No derivative financial instruments were used in the past financial year 2022. The financial instruments recognised in the balance sheet are part of the company's general risk management, which is reflected in the bookkeeping and accounting policies.

1.3.2 Financial performance

In the financial year 2022 the operating result including own work capitalised and other operating income net of shareholder contribution and research tax premium amounted to approximately EUR 38.5 million (previous year: approximately EUR 37.2 million).

Domestic revenues accounted for 62% and international revenues accounted for 38% of the operating result generated in projects. The share of the operating result of 11% generated in projects attributable to Styria did not change compared to the previous year.

In the reporting year advances received for research projects in the amount of EUR 7.1 million were deducted on the face of the balance sheet from services not yet chargeable in the amount of EUR 10.0 million.

The expenses of approximately EUR 51.8 million (previous year: approximately EUR 49.1 million) are made up of staff costs including statutory social security charges and voluntary social benefits plus allocations to pension provisions (former managing director) and severance payments of approximately EUR 35.7 million (previous year: approximately EUR 34.4 million), cost of materials and other services purchased of approximately EUR 4.5 million (previous year: approximately EUR 4.0 million), amortisation and depreciation of approximately EUR 3.7 million (previous year: approximately EUR 3.6 million) and other operating expenses of approximately EUR 7.9 million (previous year: approximately EUR 7.1 million).

The shareholder contributions of the State of Styria, the State of Carinthia through Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. (BABEG), the State of Burgenland through Wirtschaftsagentur Burgenland GmbH, and the Grant Agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) constitute material elements of corporate financing and secure accomplishment of the corporate mission.

The Group closed the financial year 2022 with a profit before taxes (formerly profit or loss on ordinary activities) of EUR 91,477.92. Taking into account income taxes of EUR 2,750.00, reversal of reserves in the amount of EUR 282,420.93 and the profit of EUR 2,665,391.36 carried forward from the previous year, the net profit for the year is EUR 3,036,540.21.

After closing of the accounts for the reporting year no other significant events have occurred which would have affected the Group's financial position or financial performance in the financial year 2022.

1.3.3 Capital expenditure report

In the financial year 2022 approximately EUR 4.7 million (previous year: approximately EUR 2.9 million) were invested in property, plant and equipment (scientific equipment, electronic data processing systems, furniture and fixtures, land with buildings).

II. Report on prospective developments and risks of the Group

Economic policy framework conditions for research and development (R&D)

Looking back, the global economy was characterised by unexpected economic stability in the past calendar year. Despite the continuing geopolitical tensions (the war in Ukraine, the conflict between Taiwan and China), supply shortages, energy price increases, substantial inflation and the related increase in key interest rates and deterioration of the consumer climate the major markets recorded small performance increases. In the third quarter of 2022, the United States of America, for example, recorded economic growth of 0.6% compared to the previous period (WIFO [Austrian Institute of Economic Research] Monthly Report 12/2022). In the second quarter of 2022 the Eurozone achieved a performance increase of 0.8% and even an increase of 0.3% in the third quarter.

The Austrian economy showed a similar development in the past year. In the third quarter of 2022, gross domestic product increased by 0.2% compared to the previous period. Even though measured against the growth in the first two quarters (1.2% and 1.9%) this means only a marginal increase, it is no slump. Due to falling energy prices a slight decline in the inflation rate was reported for the first time last November compared to the previous month (10.6% instead of 11% before). On a positive note, the constant employment growth rate in spite of adverse circumstances has to be mentioned. For both October and November 2022 a growth of 0.3% compared to the previous month was reported.

For the first time since the outbreak of the covid-19 pandemic a global estimate of research and development (R&D) expenditure in Austria was published again. According to the figures available to date total R&D expenditure was above EUR 14.1 billion in the past year (Statistics Austria press release: 12.793-091/22), which means a share of nominal gross domestic product and thus a research share of 3.26%. Fifty-one per cent (51%) of R&D expenditure were paid by domestic businesses (EUR 7.16 billion), 33% of the expenditure were borne by the federal government and the state governments (EUR 4.7 billion), whereas 16% (EUR 2.2 billion) were financed by foreign parties.

Specific framework conditions for the parent company

Shareholder contributions and Grant Agreement with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Figures in kEUR	Shareholder contribution		Grant Agreement	
	FY 2022	FY 2021	FY 2022	FY 2021
State of Styria	7,700.0	7,900.0		
State of Carinthia	1,579.0	1,674.0		
State of Burgenland	464.5	477.0		
BMK			2,566.9	2,641.0
Total	9,743.5	10,051.0	2,566.9	2,641.0

Risks and prospective development of the Group

Cost increases due to inflation will present a major challenge for the financial year 2023. An inflation-related raise of shareholder contributions is being discussed with the owners. However, a large part of the cost increases will need to be covered by generating income in a competitive research market. Due to more competition and almost stagnant funding the framework conditions for funded research projects are expected to become more stringent on the whole, both at a national and an international level. It must be assumed that many research institutions and businesses engaged in research activities will intensify their endeavours to solicit projects in the funded research sector to cover their higher costs. As regards long-term research projects this problem will become even more severe because the future development of inflation is difficult to assess. The shortage of highly qualified staff and shortages in supply chains also constitute challenges.

The new business strategy for the years 2023-2027 takes those difficult framework conditions into account, including by planning measures to expand the Group's market presence and to strengthen its resilience.

For the financial year 2023 JOANNEUM RESEARCH expects a balanced result despite the difficult external framework conditions.

The positive development of JR-AquaConSol GmbH in the financial year 2022, which was above expectations, constitutes a good basis for the financial year 2023. JR-AquaConSol expects stable development for 2023. In the area of water resource

management the market is expected to develop favourably. In addition, distribution of small lysimeters is intended to be pushed and the production space for lysimeter systems is planned to be expanded.

IT security within the Group

For 2022 a study on this subject showed that 67% of 550 surveyed entities had been victims of cyberattacks (previous year: 60%; comparison of the KPMG studies on "Cyber security in Austria" for 2022 and 2021).

Apart from the technological aspects of a cybercrime incident, be it due to security vulnerabilities or inadequately configured security systems, the human factor constitutes the easiest way to attack.

In terms of the psychological factors gullibility of the victims, lack of awareness of the need for security measures, and the increasing prominence of digital equipment in everyday life are used as attack vectors. Especially in a hybrid work environment, be it working from home, doing mobile work or working at the office, cybersecurity hygiene must be promoted to reduce vulnerability to cyber attacks.

As a company that generates knowledge JOANNEUM RESEARCH faces worldwide competition in some research areas. Accordingly, there is a strategic risk of trade secrets being spied out by competitors or government-related agencies. Inadvertent disclosure of information must also be avoided both at a technical and an organisational level. To this end the Group invests in creating strong awareness among its staff, in comprehensive authorisation concepts, a strict password policy, a private cloud, encryption, and much more.

JOANNEUM RESEARCH's IT constantly wards off attacks to the network or clients and at a social level, and is connected very well. In order to meet the increasing requirements in this area, the Group is investing in appropriate technology as well as in initial and continuing training of its staff.

III. Report on research and development

III.1 Research units of the parent company

DIGITAL – Institute for Digital Technologies

Activities planned for financial 2023

At DIGITAL researchers with top international connections develop high-tech solutions on the basis of state-of-the-art information and communication technologies. For financial 2023 the Group plans to build another facility in the Lakeside Science & Technology Park in Klagenfurt, the so-called Digital Twin Lab. Activities will be prioritised further to support green transformation in accordance with the Green Deal, in particular mobility transition and a closed-loop economy where resources are used to their maximum capacity. By means of interdisciplinary collaboration supported by the research groups DIGITAL will reinforce its position as a one-stop supplier of information systems. Data collection and sensor technology linked with AI and prediction systems are combined into overall solutions offering secure communication, computing and information management systems.

MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies

Activities planned for financial 2023

MATERIALS focuses on production and surface technologies, photonics and nanotechnology to match the requirements of regional and international businesses, and has been pursuing a strategy of interdisciplinary collaboration for many years. Due to the institute's continued focus on and consistent enhancement of its strengths it has become a much sought-after research partner in Austria and abroad. Long-standing experience, interdisciplinary teams and approaches, the technological focus on topics in which MATERIALS has developed a unique selling proposition, professional handling of funding (applications, project management) and last but not least the successful EU pilot lines and open-innovation test beds are among the institute's core competences.

ROBOTICS – Institute for Robotics and Flexible Production

Activities planned for financial 2023

Starting from financial 2023, ROBOTICS will expand its R&D activities and thus act as an even stronger R&D business partner in the technological field of flexible digitised production at a regional, national and an international level. Accordingly, the R&D portfolio will be expanded to include automated production for covering all areas of flexible production. Developing the thread of automated production will constitute the supplementary basis for this thematic advancement and start with the priority of establishing an application-oriented portfolio of sustainable production automation in financial 2023. For the coming financial year, apart from the activities in national research programmes, it is also planned to push project development within the framework of EU programmes, such as Horizon Europe or EIT Manufacturing.

COREMED – Centre for Regenerative and Precision Medicine

Activities planned for financial 2023

The research focus on cutaneous wound healing and developing pre-clinical models for wound healing and wound healing disorders will be maintained and is planned to be further expanded. COREMED has established in-vivo, ex-vivo and in-vitro models, which are constantly enhanced for and in cooperation with customers. In particular the area of in-vitro skin models is planned to be strengthened further. With respect to the pre-clinical in-vivo portfolio the institute will concentrate on establishing and characterising skin ageing models. The portfolio of in-vitro models is planned to be further expanded and subsequently updated to the state of the art by the implementation of 3D bioprinting of skin constructs. However, COREMED also deals with the sociopolitical and socio-economic effects of ageing.

HEALTH – Institute for Biomedical Research and Technologies

Activities planned for financial 2023

HEALTH sees itself as a link between basic medical research and industrial application and offers interdisciplinary overall solutions as R&D services for the pharmaceutical and medtech industry as well as for the healthcare sector. Its R&D portfolio is guided by the key topics of "dermato-pharmacological research", "neuro-pharmacological research", "metabolic research" and "digital healthcare". Relevant topics include transport of agents through the skin or mucous membranes or across the blood-brain barrier, local effects of drugs, dose-response relationships, the impact of protein binding on the

pharmacological effect of drugs, interactions of tissues and their effect on (patho-) physiological processes, understanding and elucidating inflammatory mechanisms.

LIFE – Institute for Climate, Energy Systems and Society

Activities planned for financial 2023

LIFE distinguishes itself by combining research on the complex nexus of climate, energy and society based on scientific excellence with a strong focus on topics of practical relevance. Against the background of current challenges due to climate, technological, social and spatial changes, LIFE helps to develop decision-making bases and application-oriented solutions for the burning questions of our time. In this context the following key challenges were identified: the challenge of "increasing climate and energy risks", the challenge of a "determined EU climate policy with more fragile international value chains", and the challenge posed by the fact that "without end consumers any technology-driven climate policy blows out".

POLICIES – Institute for Economic, Social and Innovation Research

Activities planned for financial 2023

Against the background of major social transformations, the fundamental mission of POLICIES, namely to provide information and analyses for evidence-based policies and business decisions, will continue to be of great importance. For financial 2023 activities are planned to be intensified in the following areas: research and analysis of interactions in research and innovation ecosystems and/or research and innovation cultures; developing forms of policy consulting in early stages and experimental policy development; developing new approaches to evaluations and evaluation systems and enhancing competences in the field of digitalisation in agriculture. In parallel, the institute plans to constantly expand its activities in the area of labour market research.

In the financial year 2023 the focus of research activities is on lysimeter systems, on the topical field of "atmosphere, soil and unsaturated zone", on developing numerical models for agricultural irrigation and developing models for data-based and model-based control systems for water supply companies.

Graz, 3 March 2023

[signature]

The Management:

Heinz Mayer

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

Auditor's Report

Report on the Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of
JOANNEUM RESEARCH Forschungsgesellschaft mbH,

Graz,

and of its subsidiaries (the Group) comprising the consolidated balance sheet / statement of financial position as of 31 December 2022, the consolidated income statement, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year then ended and the notes to the consolidated financial statements.

Based on our audit the accompanying consolidated financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Group as of 31 December 2022 and its financial performance for the year then ended in accordance with Austrian Generally Accepted Accounting Principles.

Basis for Opinion

We conducted our audit in accordance with Austrian Standards on Auditing. Those standards require that we comply with International Standards on Auditing (ISAs). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of this auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

Other Information

The consolidated financial statements of JOANNEUM RESEARCH Forschungsgesellschaft mbH (Group), Graz, as of 31 December 2021 were audited by another auditor, who has provided an unmodified auditor's opinion on 9 March 2022.

Responsibilities of Management and of the Supervisory Board for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements in accordance with Austrian Generally Accepted Accounting Principles, for them to present a true and fair view of the assets, the financial position and the financial performance of the Group and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Supervisory Board is responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with in accordance with Austrian Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

As part of an audit in accordance with Austrian Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

Comments on the Management Report for the Group

Pursuant to Austrian Generally Accepted Accounting Principles, the Group management report is to be audited as to whether it is consistent with the consolidated financial statements and as to whether it was prepared in accordance with the applicable legal regulations.

Management is responsible for the preparation of the Group's management report in accordance with Austrian Generally Accepted Accounting Principles.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the Group's management report.

Opinion

In our opinion, the management report for the group was prepared in accordance with the valid legal requirements and is consistent with the consolidated financial statements.

Statement

Based on the findings during the audit of the consolidated financial statements and due to the thus obtained understanding concerning the Group and its circumstances, no material misstatements in the Group's management report came to our attention.

Graz, 3 March 2023


Steirische Prüfungs- und BeratungsgmbH
Dr. Doris Maier

Certified auditor and tax consultant

This report is a translation of the original report in German, which is solely valid.

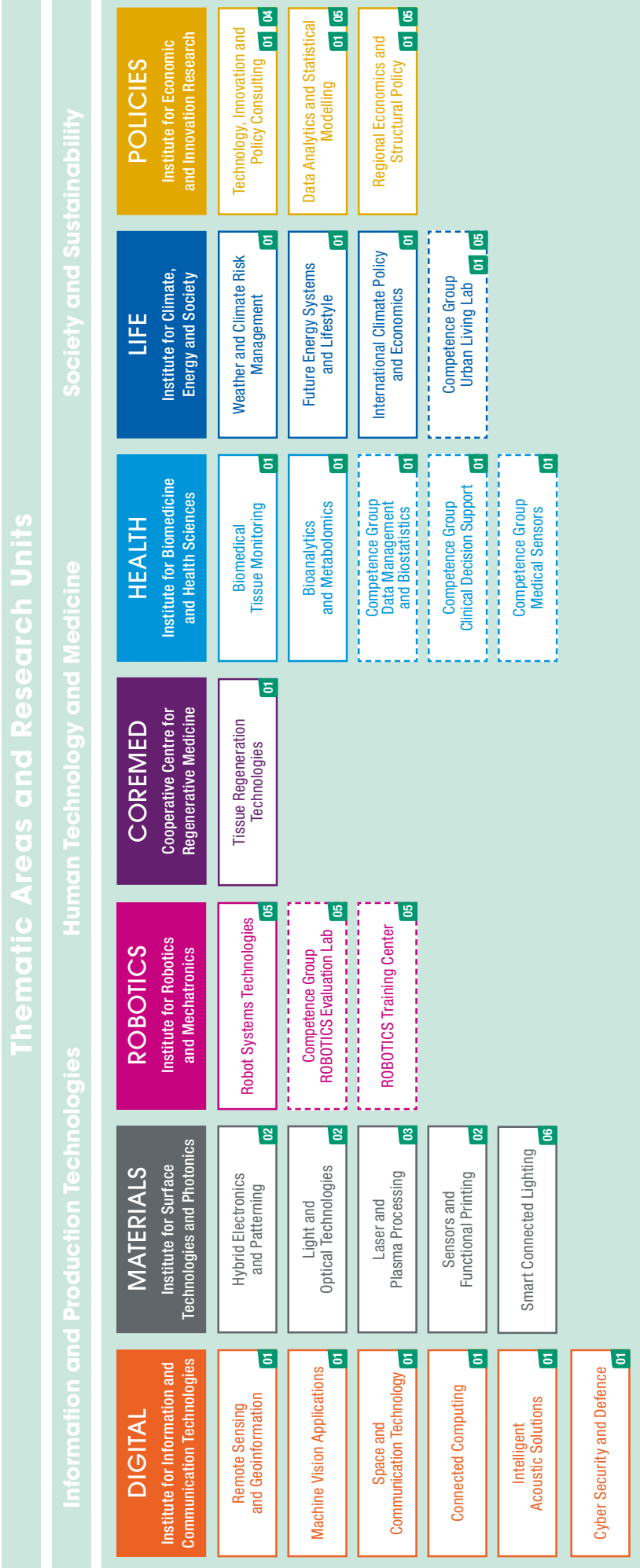
Publication or sharing with third parties of the group financial statements together with our auditor's opinion is only allowed if the financial statements and the management report are identical with the audited version. This auditor's opinion is only applicable to the German and complete financial statements with the management report. Section 281 par. 2 UGB (Austrian Company Code) applies to altered versions.

Steirische Prüfungs- und BeratungsgmbH

JOANNEUM RESEARCH

Forschungsgesellschaft mbH

Executive Board, Corporate Staff and Departements



Locations: 01 Graz 02 Weiz 03 Niklasdorf 04 Vienna 05 Klagenfurt 06 Pinkafeld

Affiliated Company

- JR-AquaConSol GmbH

Shareholdings

- DIH SÜD GmbH
- EPIG GmbH
- FH JOANNEUM Gesellschaft mbH
- Holz.Bau Forschungs GmbH
- Human.technology Styria GmbH

Commercial utilization/Spin-offs

- ALP.Lab GmbH
- decide Clinical Software GmbH
- Geo5 GmbH
- Pacemaker Technologies GmbH

Shareholdings COMET-Centres

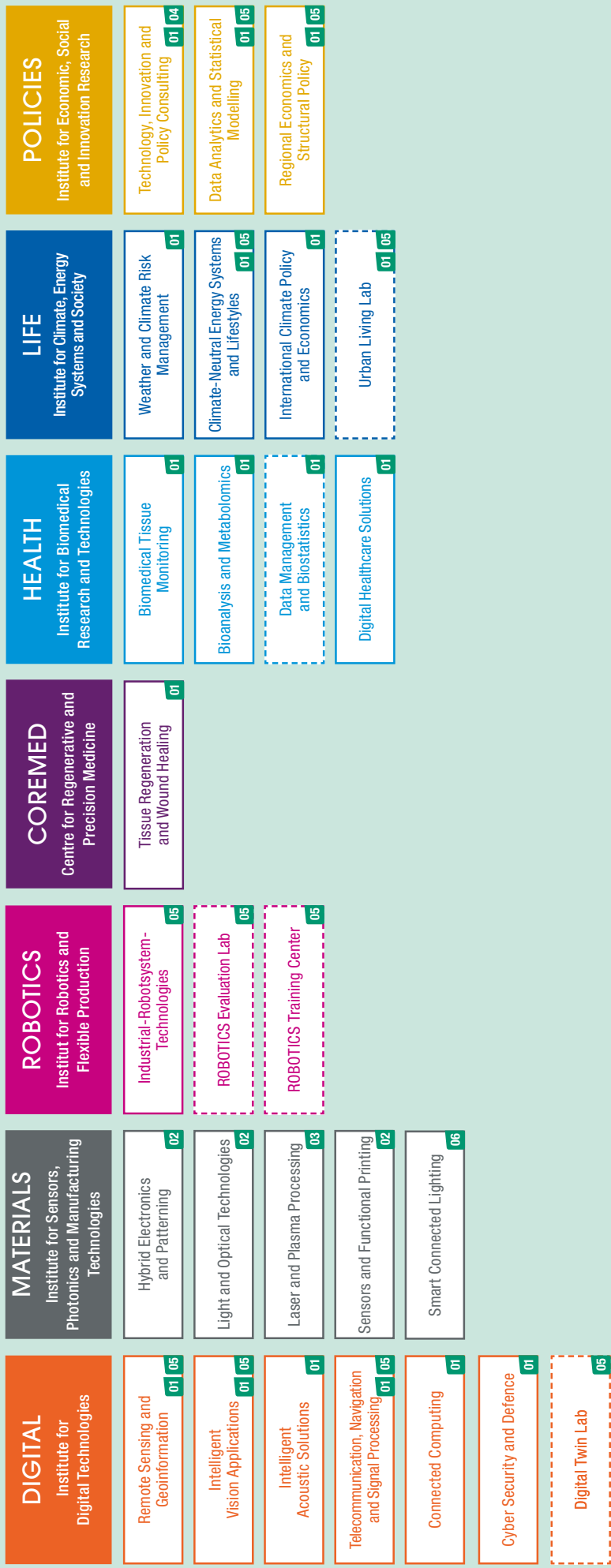
- ACIB GmbH
- BEST – Bioenergy and Sustainable Technologies GmbH
- CBmed GmbH
- Know-Center GmbH
- Research Center for Data-Driven Business & Big Data Analytics
- Virtual Vehicle Research GmbH
- Materials Center Leoben Forschung GmbH

Equity Holdings

- Polymer Competence Center Leoben GmbH
- Research Center Pharmaceutical Engineering GmbH

Executive Board and Corporate Staff

Research Units



Locations: 01 Graz 02 Weiz 03 Niklasdorf 04 Vienna 05 Klagenfurt 06 Pinkafeld

Equity Holdings

Affiliated Company

- JR-AquaConSol GmbH

Shareholdings

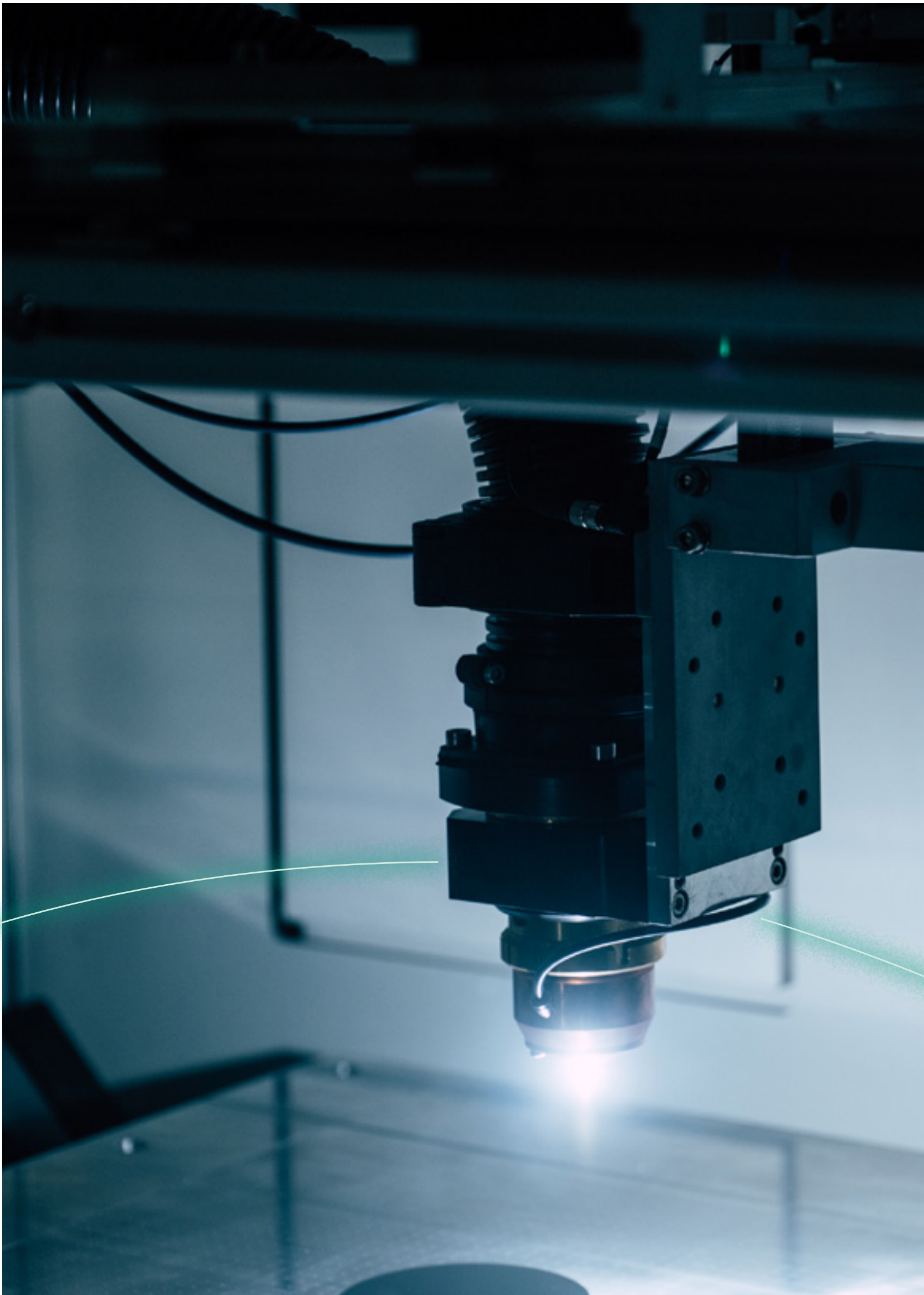
- DIH SÜD GmbH
- EPIG GmbH
- FH JOANNEUM Gesellschaft mbH
- Holz.Bau Forschungs GmbH
- Human.technology Styria GmbH

Commercial utilization/Spin-offs

- ALP.Lab GmbH
- decide Clinical Software GmbH
- Geo5 GmbH
- Pacemaker Technologies GmbH

Shareholdings COMET-Centres

- ACIB GmbH
- BEST – Bioenergy and Sustainable Technologies GmbH
- CBmed GmbH
- Know-Center GmbH
- Virtual Vehicle Research GmbH
- Materials Center Leoben Forschung GmbH
- Polymer Competence Center Leoben GmbH
- Research Center Pharmaceutical Engineering GmbH



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