

SHAPING THE FUTURE,
TOGETHER

JOANNEUM
RESEARCH



Annual Report 2023

JOANNEUM RESEARCH

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Intelligent multispectral characterization
for material analysis in scrap yards
(hyperspectral image analysis)

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We pool our competences to make us fit for the future.

The financial year 2023 was characterised by numerous activities and initiatives, in particular in the area of green and digital transformation, which is of great relevance to society and the scientific community and was the general topic of our Future Conference in November. Our highly qualified researchers contribute towards reaching the goals of the European Green Deal. The transition will only be possible through enhanced use of digital technologies. In this context, JOANNEUM RESEARCH is able to rely on excellent research results and innovations in the areas of closed-loop economy, life cycle analyses and material sciences, as well as green photonics. In addition, we continued to develop the research landscape in Carinthia by establishing the Digital Twin Lab at the Klagenfurt Lakeside Science & Technology Park.

By implementing our new business strategy we managed to pool our competences even better and make them fit for the transformation. Capacity utilisation at corporate level was very good in 2023, which is quite remarkable against the background of strained economic developments. This is also impressively reflected by the company's self-financing ratio of more than 75%. The high level of orders on hand constitutes a solid basis for the next financial year. The successes and excellent positioning of JOANNEUM RESEARCH in the Austrian and international research landscape are decisive for our performance.

We will still have to face major challenges in the future, which we can only tackle together with our highly innovative staff.



DI DR. HEINZ MAYER
MANAGING DIRECTOR



SOUTH RESEARCH AXIS

Jobs and economic growth



© Lurghammer

In Styria, JOANNEUM RESEARCH is an important motor promoting innovations, and an important contact point for our businesses with regard to trending topics such as digital and green transformation. Moreover, it is the lighthouse for the Southern Business and Research Axis across several Austrian states and a role model of cooperation culture. This is demonstrated on a daily basis by the good cooperation of its staff with Austrian and international businesses, universities and research institutions. Thank you for your great commitment. I wish you every success for the future.

MMAG.^A BARBARA EIBINGER-MIEDL
MEMBER OF THE STYRIAN GOVERNMENT
FOR ECONOMY, TOURISM, REGIONS,
SCIENCE AND RESEARCH



© Rauchenwald

In Klagenfurt, JOANNEUM RESEARCH can look back on an impressive success story in its quite short history, which we want to continue pro-actively in the years to come by establishing other institutes and enlarging the teams. As a co-owner our task will be to strengthen our support for developing the JR culture with high visibility in Klagenfurt, and our non-university research facilities' access to cooperative research.

DR.^{IN} GABY SCHAUNIG
DEPUTY GOVERNOR
STATE OF CARINTHIA



© Büro Schneemann

Research and education are key to managing global challenges. The State of Burgenland has taken initiatives to promote talent, solve the complex issues of our time and establish itself as an innovation hub. The establishment of JOANNEUM RESEARCH in Pinkafeld is a milestone, adding value for local businesses and institutions. Research secures jobs and economic growth. We appreciate the positive cooperation with JOANNEUM RESEARCH. Thanks to all the staff members and the management.

DR. LEONHARD SCHNEEMANN
MEMBER OF THE GOVERNMENT OF
BURGENLAND FOR RESEARCH MATTERS
AND DIGITALISATION

© Tinerfoto, Martin Steinhilber



In 2023 we strictly continued to follow our new business strategy. JOANNEUM RESEARCH's performance was solid even in a challenging global environment. Thanks to the researchers' commitment and great expertise, important contracts were solicited under national and international calls for tenders. Numerous activities and initiatives prove the company's high innovative power and agility. Special thanks go to the owners for their unbroken trust in our company.

DR. MARTIN WIEDENBAUER
CHAIR OF THE SUPERVISORY BOARD

© ÖRK Nadja Meister



JOANNEUM RESEARCH can look back on a very successful financial year 2023 in terms of scientific achievements. One of the highlights was certainly the commencement of implementation of the new 5-year business strategy 2023-2027 and the goals and measures embodied therein, which will allow the company to continue research and innovation at a top international level. As an important research and innovation driver JOANNEUM RESEARCH is engaged in activities across several Austrian states along the Southern Research Axis.

UNIV.-PROF. DDR. GERALD SCHÖPFER
CHAIR OF THE SCIENTIFIC
ADVISORY BOARD

Green. Digital. Excellent.

The necessary green transformation cannot be achieved without the support of digital technologies. In 2023 JOANNEUM RESEARCH focused on developing technologies and solutions facilitating twin transition and making Austrian businesses fit for the transformation. Excellent research work meets society and the economy – embedded in a broad network.

Recycling The steel industry supplies Austria with some 8 million tons of the valuable raw material. To accompany the steel industry on its path towards „green steel“, measures are being taken on several levels – from the raw material used via the furnace up to re-use of waste materials. Production requires a lot of energy and causes enormous amounts of carbon emissions, which calls for transformation. Under the InspecScrap project, DIGITAL works on innovative material characterisation of scrap metal. In this process, the composition, which is crucial for the quality of the steel produced, is characterised by use of artificial intelligence (AI) and hyperspectral multisensors. For if you produce steel from steel scraps instead of using the primary raw material, iron ore, carbon emissions can be reduced by up to 75% and production can be designed more energy-efficiently.

The project was presented at a press conference in October 2023. One challenging recycling topic is electrical and electronic waste. Electronic components, such as printed circuit boards (PCBs), including elements such as sensors, chips, capacitors or resistors, usually consist of a fibreglass and polymer composite material with circuits on a copper basis and various other metals. The „CircEl Paper“ EU project aims at manufacturing functional PCBs on the basis of paper technology, so that functional electronic equipment can be disposed of and even recycled in traditional paper recycling processes at the end of their useful life. This could help reduce recycling costs and facilitate the recovery of valuable materials. MATERIALS is involved in the project with the development of new materials and LIFE with expertise in life cycle analysis.

Digital Twins are precise virtual models of real objects or systems which are updated in real time to reflect their condition, process and performance.

They play an increasingly important role in economy and industry because they enable businesses to optimise their products and processes without having to produce physical prototypes. In that way,

development costs as well as the time to market is being reduced. The automotive industry can be mentioned as an example, where digital twins are used for virtual simulation of assembly lines. Manufacturers are thus able to test and optimise production processes in advance, keeping sources of errors at a minimum and increasing efficiency. In addition, digital twins allow to diagnose and predict problems, which leads to better maintenance and shorter downtimes. All in all, they improve efficiency and innovation in the areas of production, automation and product development. The technology is the heart of digital transformation and can be found in numerous projects of JOANNEUM RESEARCH.

In the area of e-mobility, POLICIES has developed a method for MIBA Automation Systems to detect faulty stators, the core of all electric motors, as early as in the production stage. This is done by collecting data and generating a digital model of the manufacturing process, allowing for better process control.

Prevention and Care The „VitalMonitor „FORTE project, which is being coordinated by DIGITAL, is developing a real-time monitoring system for the assessment of physical strain on soldiers. The goal is to



„InspecScrap“ Press Conference: innovative material characterisation of scrap metal



2023 Cybersecurity Status Report: In May the current cyberspace security status was presented.



European Forum Alpbach: JOANNEUM RESEARCH invited to a working group and was part of the materials workshop.

Locations



Graz

Headquarters – Management
and Staff Functions
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



Graz / Science Tower

LIFE – Institute for Climate,
Energy 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



461

staff members are engaged in research
in Styria



enable targeted risk and stress management by measuring physical exertion using wireless sensors and smart textiles. The technology is intended to be used in military training for better planning of breaks and designing training more effectively.

Another DIGITAL project that has been completed successfully is „multimodAAL“. The study clearly proved that cognitive activation training using digital applications, i.e. special exercises on tablets, are likely to enhance memory performance in old age and may slow the progression of dementia.

HEALTH also carried out research on the topic of mobilisation in older people and published the Acute Geriatrics Report 2022. Thanks to advanced digitalisation in the health sector, researchers are able to rely on valid data. The study showed significant improvements in independence following treatment on an acute geriatric ward. HEALTH is engaged in research projects on digitalisation in medicine at various levels and has developed a digital solution to improve surgical safety in cooperation with the Styrian hospital operator Steiermärkische Kran-

kenanstalten-gesellschaft (KAGes). In 2023 the digital Surgical Safety Checklist was gradually introduced in all KAGes facilities in Styria.

COREMED played a major role in the development of EVOCellic, which is a cell therapeutic agent driven by the EVO-MEDIS start-up that was assigned the status of orphan drug designation by the European Medicines Agency (EMA). It uses human, allogeneic keratinocytes for treating severe burns.

Human Body A new technology designed to largely avoid animal testing is called body-on-a-chip or organ-on-a-chip. The procedure is used, for example, in the BodyTox FORTE cooperation project. Body-on-a-chip means that a miniaturised version of a human organism can be simulated by using 3D mini organs (organoids) which are connected via a nutrient exchange and small channels (microfluidics). It is planned to use the technology to estimate the risk of dangerous substances, especially neurotoxins, to the human body. COREMED is a major stakeholder in that project. Experts from both COREMED and

HEALTH cooperate in the research work on this visionary technology. The objective of the Smart4Fabry project is to develop a new drug for the treatment of Fabry disease, a rare hereditary disease in which organs are damaged. HEALTH did research on nanocapsules, which are meant to deliver a healing enzyme to the body and across the blood-brain barrier. The studies used the cerebral open microperfusion method (cOFM) developed and patented by JO-ANNEUM RESEARCH.

Manufacturing implants by means of 3D printing is also a current topic in medicine. MATERIALS coordinated the fingerIMPLANT project in this connection and contributed its expertise in the area of surface treatment. Coating with hydroxyapatite, a mineral and the main component of our bones and teeth, by means of atmospheric pressure plasma, for example, has an antimicrobial effect and allows optimal implant growth into the bone. Scientific project results were exploited in publications. The goal of the project is to obtain clinical approval of the implant system and its tools, and to establish it on the market.



Cooperation: JOANNEUM RESEARCH and the University of Applied Sciences FH JOANNEUM reaffirm their cooperation in joint ventures.



Weiz: JOANNEUM RESEARCH renewed the contract with Innovationszentrum W.E.I.Z.



Regenerative Medicine: COREMED celebrated its 5th anniversary in October 2023.

Statements



„In 2023 artificial intelligence arrived in the mainstream. DIGITAL is now making the technology accessible for use in all of its business segments.“

MATTHIAS RÜTHER,
DIRECTOR DIGITAL



„Our research is shaping the future. Innovative regenerative technologies, new bespoke therapies and preventive approaches make decisive contributions to advancements in medicine.“

LARS-PETER KAMOLZ,
DIRECTOR COREMED



„Approval of the N!CA COMET project in the area of digital health enables the sustainable development of new digital solutions for care processes.“

THOMAS PIEBER
DIRECTOR HEALTH



„Despite a decline in capital expenditure by the pharmaceutical industry in R&D projects we managed to sign key licence agreements for our core technologies.“

FRANZ FEICHTNER
DIRECTOR HEALTH



„In 2023 we addressed topics of digital and ecological transformations, and prepared and analysed large volumes of data in higher education development, on the labour market, and in technological applications.“

WOLFGANG POLT
DIRECTOR POLICIES



„In the last few years we have positioned ourselves and are internationally recognised in many areas, which now manifests itself in numerous cooperation projects, even far beyond Austria's borders.“

PAUL HARTMANN
DIRECTOR MATERIALS



„In 2023 the biggest decisions so far on decarbonisation of the industry sector were made for Styria as a business location. We are looking forward to be part of the transition.“

FRANZ PRETTENTHALER,
DIRECTOR LIFE

Society. Climate. Industry.

At the Lakeside Science & Technology Park Klagenfurt, 32 experts from ROBOTICS, DIGITAL, LIFE, and POLICIES are engaged in research on topics relevant to society and climate, and work on making local producers fit for the future.

Mobility POLICIES supports the regions in Carinthia by providing specific location and economic analyses. The team generates practically relevant knowledge and provides support in implementing specific regional economic measures. By the end of 2025, the Koralm Tunnel, the core section of the Koralm Railway, will directly connect the States of Carinthia and Styria by rail. Accessibility by public transport will thus significantly improve in Southern Austria and lead to a new urban agglomeration in the south of Austria. Experts from the POLICIES Institute support the project by means of detailed location analyses. In 2023 POLICIES was also instructed to carry out

a study on the mobility behaviour of the people in Carinthia.

Digital Twins On 7 February 2023 DIGITAL held a press conference to inaugurate its Digital Twin Lab. Spatial digital twins replace models and prototypes, allow comprehensive use of data and supply data on the characteristics or behaviour of the real twin. In the areas of mobility, agriculture and services, new research topics can be derived from simulation, traffic, regional development planning, asset management, building information modelling, and education and training. The local team has increased to five persons.

Flexible Production In 2023 ROBOTICS' research focus was on industrial robotics and pertaining system technologies.

In addition, the team has expanded its competences in the area of production automation with a focus on enhance-

ment of robot safety and qualification. As a cooperative research project with a regional focus, for example, the FFG project DIVIDER got underway with the partners KI4LIFE Innovation Centre for Digitalisation and Artificial Intelligence of Fraunhofer Austria GmbH, and Messfeld GmbH for data-based monitoring and predictive diagnostics. In the DIVIDER project, researchers explore whether anomalies can be identified based solely on measurements of the main power supply.

Sustainability In the course of the LOCA2 Transformation project, businesses in lower Carinthia were supported on their way to climate neutrality. The LIFE Institute prepared a case study together with the University of Klagenfurt, which contains solution approaches for a sustainable future. The study focused on potentials and barriers, transformation paths and providing support to businesses.

Events

1. The System Integrators Conference hosted by ROBOTICS on 11 October was dedicated to sensor technologies in flexible production.

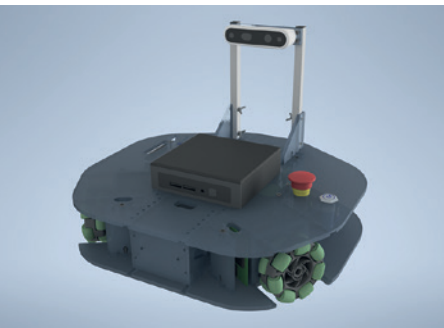
2. JR was well-represented at the „Carinthia innovates“ event on 28 November as well.



1.



2.



OPEN-TeaLeaf: ROBOTICS sets up mobile robot systems for teaching at schools.



Infrastructure: In February a press conference was held to inaugurate the new Digital Twin Lab.



Labour Market: POLICIES prepared an economic study for the Carinthian Chamber of Labour.

Statements



„We offer a broad technology spectrum for innovative robotics with a focus on application-oriented solutions for robot-based flexible production.“

ANTON SCHEIBELMASSER,
DIRECTOR ROBOTICS



„Apart from the successful development of the spatial digital twins research field, we consider the location to be predestined to be a model region for civil protection and innovative sensor technology in flexible production.“

MATTHIAS RÜTHER,
DIRECTOR DIGITAL



„We congratulate Klagenfurt on being part of the EU Climate Neutral & Smart Cities Mission. LIFE is a reliable research partner for the ensuing process.“

FRANZ PRETTENTHALER,
DIRECTOR LIFE



„We act as a competence centre for regional economic analyses and directly support regional policy-makers. The change in regional labour markets as a consequence of large-scale capital expenditure on infrastructure (Koralp Tunnel) was one of the focuses of our work in 2023.“

WOLFGANG POLT,
DIRECTOR POLICIES



Lakeside Science & Technology Park

ROBOTICS – Institute for Robotics and Flexible Production

DIGITAL – Institute for Digital Technologies

POLICIES – Institute for Economic, Social and Innovation Research

LIFE – Institute for Climate, Energy and Society

Lakeside B13b
9020 Klagenfurt



32 staff members are engaged in research in Carinthia



Electronics. Function. Light.

In 2023 the special focus of the Smart Connected Lighting research group at MATERIALS was on developing cost-efficient and energy-efficient lighting technologies designed to enable functional enhancements of LED light sources in various applications.

Visible Light Technologies The team in Pinkafeld intensified its activities in implementing communication features (visible light communication, VLC) and sensor technology (visible light sensing, VLS) by means of visible light. These innovative features were developed further in a practice-oriented manner through specifying concrete applications in collaboration with partners. Fields

of application reach from shop lighting via the smart home sector up to smart farming.

In cooperation with the company LUMITECH Lighting Solution GmbH, for example, a smart lighting demonstrator was created, which was successfully presented at the Euroshop 2023 trade fair. The goal was to realise two different use cases of visible light sensing (VLS) to be integrated into a retailer's lighting system. The VLS prototypes were implemented in two different compartments of a fruit container, with each compartment representing a use case: detection of the filling level, and detection of the aging of goods. The VLS system thus detects

the filling level of the storage as „full“ or „empty“ and the degree of freshness of fruit.

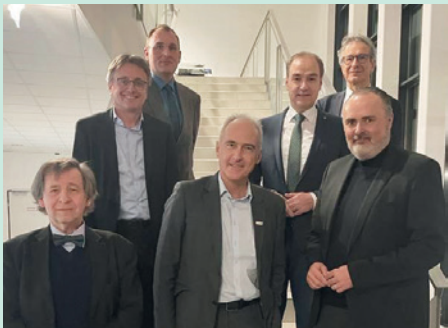
Cooperation In February, Governor Hans Peter Doskozil, Leonhard Schneemann, Member of the Government of Burgenland, and Michael Gerbavits, Managing Director of Wirtschaftsagentur Burgenland visited the Institute in Pinkafeld. During a guided tour of the lighting and integration lab the delegation could see for themselves the work of the Smart Connected Lighting research group. One of the reasons for the visit was to explore potential cooperation projects in our health and care segment.

Cooperation

MATERIALS and HELLA Fahrzeugteile Austria decided to enter into a master agreement for development contracts in the areas of optics and electronics for automotive applications.

Patent application

In 2023 the Smart Connected Lighting research group applied for a patent for a „process for object-detecting operation of a lighting device and lighting device“.



In February 2023 Governor Peter Doskozil visited Pinkafeld.



„Our Smart Connected Lighting research group supports regional and supraregional businesses by offering new technologies for the lighting generation after next.“

PAUL HARTMANN,
DIRECTOR MATERIALS



Pinkafeld Technology Center

MATERIALS – Institute for
Sensors, Photonics and
Manufacturing Technologies
Industriestrasse 6
7423 Pinkafeld



8 staff members are engaged in research in Burgenland





Detailed view of the electron microscope, Weiz, MATERIALS

Europe. Mission. Transformation.

The focus of analyses and research work in Vienna was on Mission-oriented policies and transnational cooperation, as well as on gender research.

Europe In the ongoing TRAMI project, the actors of the Missions are brought together to create Communities of Practice, exchange knowledge and offer mutual learning opportunities. The five EU Missions are CANCER, CLIMATE, CITIES, OCEAN and SOIL. The associated target-oriented research projects require a Europe-wide transformation of decision-making processes.

JOANNEUM RESEARCH POLICIES is leading the groundbreaking project and supporting the transformation process. In a consortium headed by the RICARDO GROUP, POLICIES supports the setting up and implementation of the Mission Implementation Platform Climate Adaptation (MIP4Adapt), which was commissioned by the European Commission (European Climate, Infrastructure and Environment Executive Agency – CINEA). The project is part of the EU Mission on Adaptation to Climate Change.

In addition, POLICIES, on behalf of CINEA and together with ECORYS, works on a study which identifies the synergies of the EU OCEAN und WATER Missions under different European programmes and thus constitutes an important basis for coordination within the European Commission and national funding agencies.

Gender Studies Gender research mainly focused on the GRANTeD project, which deals with gender bias in grant allocation processes and its consequences for the researchers’ careers.



„POLICIES in Vienna supports the development of policies in close proximity to decision-makers at a national level. The associated portfolio included research, technology, and innovation policies up to social innovation topics, as well as diversity, and gender equality.“

WOLFGANG POLT,
DIRECTOR POLICIES



Haus der Forschung
POLICIES – Institute for
Economic, Social and
Innovation Research
Sensengasse 1
1090 Vienna

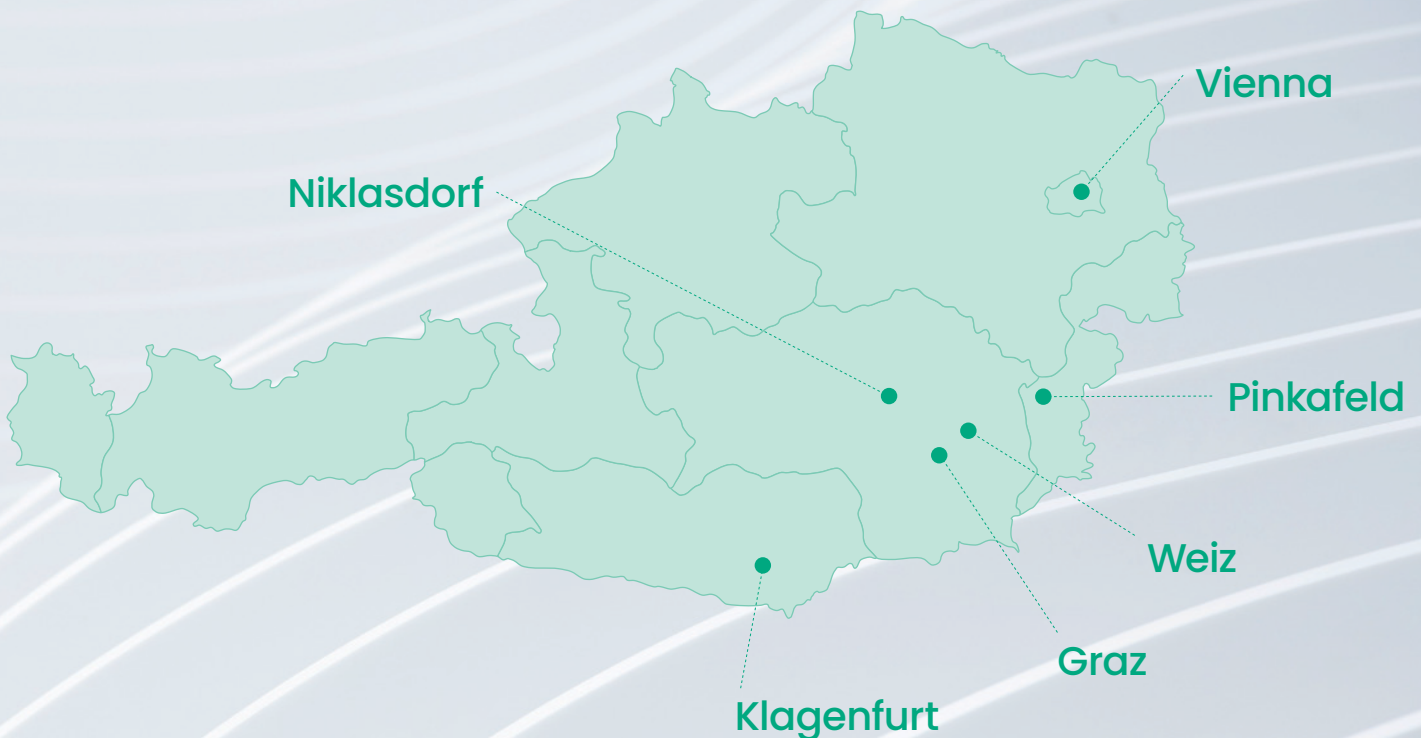


10 staff members are engaged in research in Vienna



Globally networked, locally integrated.

The close proximity of an application-oriented research company like JOANNEUM RESEARCH to local businesses significantly contributes to strengthening the location. Research and development are the motor promoting innovations and a guarantor for securing and strengthening the competitiveness of Austria's economy.



We are JOANNEUM RESEARCH



approx.
510
staff members

31
nationalities

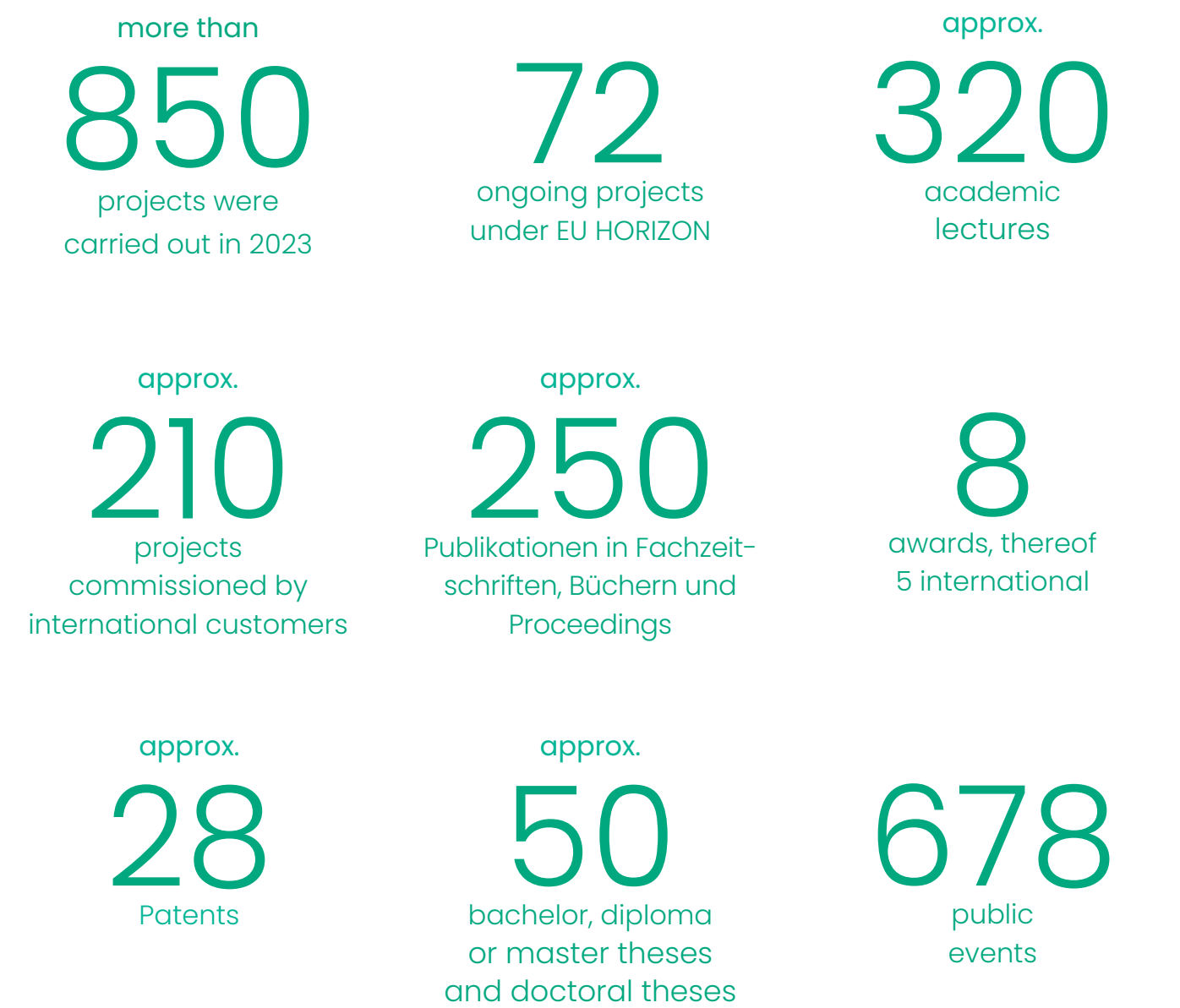
16%
staff members
of international
origin

201
women in the company

379
staff members
of science

approx.
31%
women in
science

Shaping the future, together



Future Conference

The topics of green and digital transformation were presented and the best projects of JOANNEUM RESEARCH received awards at the Future Conference on 15 November 2023.



Together in the media

In 2023 the focus of communication was on the topics of transformation, employer branding and strong brand communication. The „SINNVOLL“ [meaningful] campaign was targeted to raise brand awareness of the company as an agile research enterprise. The campaign was implemented across various media by inserts in Citylights, infoscreens on public transport, and in podcasts with researchers talking about their meaningful work at JR. The highlight was a presentation at the Fifteen Seconds Festival.

Media highlights were the Runner’s High project of HEALTH, a basic research project on the role of endocannabinoids in the high of runners, the InspecScrap project to which DIGITAL contributes hyperspectral imaging, and the Future Conference 2023. In addition, DIGITAL’s multiMODAAL project, POLICIES’ accompanying studies on the effects of the Koralmbahn railway, and the 3D visualisations of Mars enjoyed high media coverage. On 7 February the company held a press conference in Klagenfurt to inaugurate the Digital Twin Lab, which was very well attended. The topic was well received in Carinthia’s media scene.

320
posts for more than
14,000 followers in total
in social media

more than
100
stories on more than
10 channels

more than
800
media mentions



Read our customer
newsletters



follow.joanneum.at

Miteinander
zukunftsrelevant.

JOANNEUM
RESEARCH



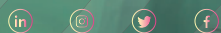
Carina Handler

forscht mit Ihren Kolleg*innen an einer speziellen Beschichtungsmethode: der Atmosphärendruck Plasmabeschichtung. Diese Methode findet unter atmosphärischen Bedingungen statt, ist schnell und relativ kostengünstig. Damit kann man zum Beispiel Minilabore – „Lab-on-a-fall“ – kostengünstig herstellen.

SINN voll!



Mit unserer Forschung schaffen wir Neues. Wir entwickeln Sinnvolles. Komm in unser Team und arbeite schon heute an den Themen für morgen. [follow.joanneum.at](https://www.joanneum.at)

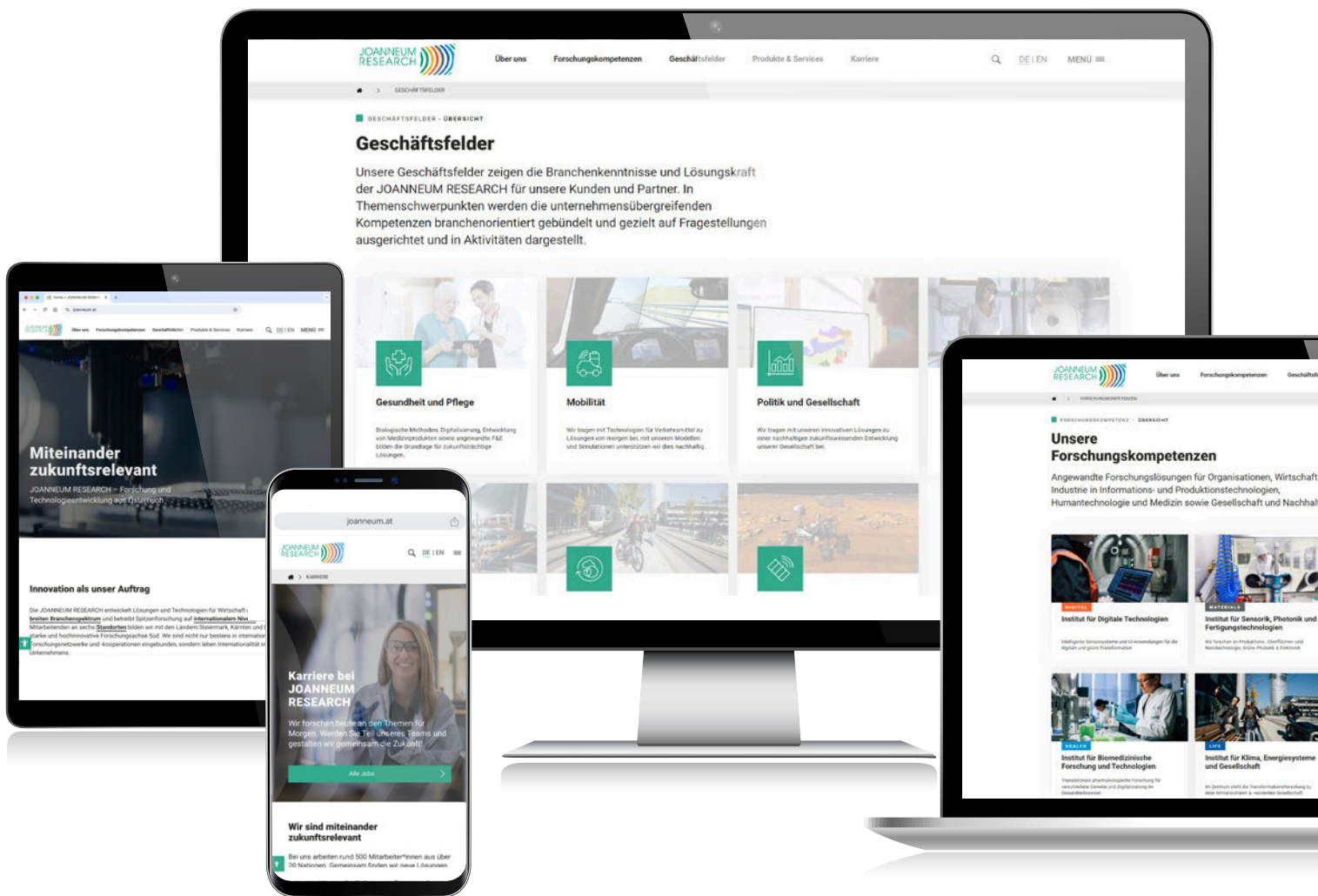


#scielove

New web design

www.joanneum.at

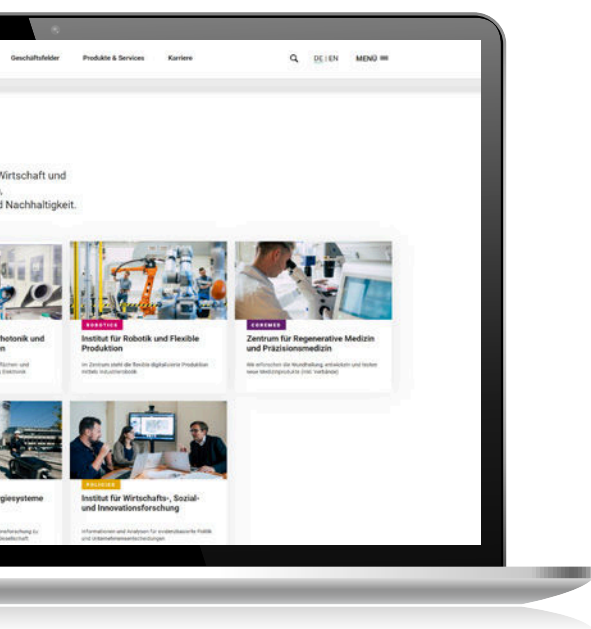
Concurrently with implementing our new business strategy we decided to relaunch our website with the aim of presenting the JOANNEUM RESEARCH brand to the public as an agile research company with even stronger impetus and focus.



We started implementation of this major project together with idlab at the beginning of last year. Our website was fundamentally redesigned and given a completely new technological, content and visual design. The new design of our web presence is structured more clearly, aligned with our core topics and focuses not only on our research competences but illustrates our interdisciplinary business segments and their thematic focuses, as well as our products and services, at top level. It provides user-friendly and quick access to all essential information in just a few clicks, from our comprehensive service portfolio to the relevant contact persons. News about the company, its services and

events are published on regularly. The careers section of our website has been redesigned, too and allows quick and easy direct access to our new careers portal. Another new feature is the integrated publications database, which enhances the visibility of our scientific papers and makes them more easily accessible.

Of course, the new website is fully responsive, meets all requirements of mobile devices with an appealing design and is accessible to all users, independent of their individual needs. See for yourself and enjoy browsing our new innovative website.



www.joanneum.at

Investing together

<div>100%</div> <div>Affiliate</div> <div>JR-AquaConSol GmbH</div>	<div>9%</div> <div>COMET Centre investment</div> <div>ACIB GmbH</div>	<div>10%</div> <div>COMET Centrum investment</div> <div>BEST – Bioenergy and Sustainable Technologies GmbH</div>	<div>12,5%</div> <div>COMET Centrum investment</div> <div>CBmed GmbH</div>
<div>10%</div> <div>COMET Centrum investment</div> <div>Know-Center GmbH</div> <div>Research Center for Data-Driven Business & Big Data Analytics</div>	<div>8,4%</div> <div>COMET Centrum investment</div> <div>Virtual Vehicle Research GmbH</div>	<div>17,5%</div> <div>COMET Centrum investment</div> <div>Materials Center Leoben Forschung GmbH</div>	<div>17%</div> <div>COMET Centrum investment</div> <div>Polymer Competence Center Leoben GmbH</div>
<div>15%</div> <div>COMET Centrum investment</div> <div>Research Center Pharmaceutical Engineering GmbH</div>	<div>20%</div> <div>Investment</div> <div>ALP.Lab GmbH</div>	<div>10%</div> <div>Investment</div> <div>decide Clinical Software GmbH</div>	<div>26%</div> <div>Investment</div> <div>DIH SÜD GmbH</div>
<div>25%</div> <div>Investment</div> <div>EPIG GmbH</div>	<div>14,9%</div> <div>Investment</div> <div>FH JOANNEUM Gesellschaft mbH</div>	<div>10%</div> <div>Investment</div> <div>Geo5 GmbH</div>	<div>5,98%</div> <div>Investment</div> <div>Holz.Bau Forschungs GmbH</div>
<div>7%</div> <div>Investment</div> <div>Human.technology Styria GmbH</div>	<div>3%</div> <div>Investment</div> <div>Pacemaker Technologies GmbH</div>	<div>More Infos online</div> <div></div>	

Annual financial statements

JOANNEUM RESEARCH

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 2023, 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 2023 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.

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 financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Report on the Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH

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
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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, 8 March 2024



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 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 alternated versions.

Steirische Prüfungs- und BeratungsgmbH

Assets

		31 Dec 2023 EUR	31 Dec 2022 EUR
A. Non-current assets			
I. Intangible assets			
1. Rights and licences		393,569.00	473,978.00
II. Property, plant and equipment			
1. Land and buildings		13,381,016.02	11,698,444.02
2. Technical plant and machinery		6,106,454.00	5,546,144.00
3. Other plant, furniture and fixtures		718,219.00	685,338.00
4. Advances made and construction in progress		379,328.88	934,821.88
		<u>20,585,017.90</u>	<u>18,864,747.90</u>
III. Financial assets			
1. Shares in affiliates		150,000.00	150,000.00
2. Participating interests		287,788.25	274,288.25
3. Investment securities (book-entry securities)		3,264,484.94	3,264,484.94
		<u>3,702,273.19</u>	<u>3,688,773.19</u>
		24,680,860.09	23,027,499.09
B. Current assets			
I. Inventories			
1. Raw materials and supplies		2,842.44	3,057.59
2. Services not yet chargeable		8,684,972.35	8,932,551.30
less advances received		-5,563,241.33	-6,383,117.86
3. Advances made		30,790.28	40,662.00
		<u>3,155,363.74</u>	<u>2,593,153.03</u>
II. Receivables and other assets			
1. Trade receivables		9,324,888.56	6,904,534.45
<i>(thereof due within 1 year</i>	<i>9,324,888.56</i>		<i>6,904,534.45)</i>
2. Receivables from affiliates		26,007.66	28,458.23
<i>(thereof due within 1 year</i>	<i>26,007.66</i>		<i>38,458.23)</i>
3. Receivables from undertakings with which the company is linked by virtue of participating interests		159,655.52	207,043.73
<i>(thereof due within 1 year</i>	<i>159,655.52</i>		<i>207,043.73)</i>
4. Other receivables and assets		16,277,976.72	12,227,242.62
<i>(thereof due within 1 year</i>	<i>16,277,976.72</i>		<i>12,227,242.62)</i>
		<u>25,788,528.46</u>	<u>19,367,279.03</u>
<i>(thereof due within 1 year</i>	<i>25,788,528.46</i>		<i>19,367,279.03)</i>
III. Cash and balances at banks		5,948,265.26	12,632,184.35
		34,892,157.46	34,592,616.41

Assets

	31 Dec 2023 EUR	31 Dec 2022 EUR
C. Escrow funds	9,527,755.50	5,226,584.06
D. Prepayments and accrued income	3,323,450.11	3,121,469.54
Total assets	72,424,223.16	65,968,169.10

Liabilities and shareholders' equity

		31 Dec 2023 EUR	31 Dec 2022 EUR
A. Equity			
I.	Share capital called in and paid up	3,600,000.00	3,600,000.00
II.	Capital reserves		
	1. Appropriated	3,599,078.25	3,866,260.92
	2. Unappropriated	362,637.44	362,637.44
		3,961,715.69	4,228,898.36
III.	Retained earnings		
	1. Statutory reserves	360,000.00	360,000.00
	2. Other reserves (free reserves)	714,590.22	687,310.22
		1,074,590.22	1,047,310.22
IV.	Net profit for the year	1,926,604.47	1,905,717.17
	(thereof profit carried forward	1,905.717.17	1,607,202.08)
		10,562,910.38	10,781,925.75
B. Investment grants		1,921,129.00	2,082,777.86
C. Provisions			
	1. Provisions for severance pay	6,318,700.00	5,682,000.00
	2. Provisions for pensions	6,684,680.00	5,893,570.00
	3. Tax provisions	8,081,200.00	7,485,400.00
	4. Other provisions	9,962,100.00	10,127,500.00
		31,046,680.00	29,188,470.00
D. Liabilities			
1.	Bank borrowings	2,275,615.15	1,387,542.57
	(thereof due within 1 year	994,000.82	819,730.96)
	(thereof due after more than 1 year	1,281,614.33	567,811.61)
2.	Advances received on orders	1,995,083.78	1,801,539.65
	(thereof due within 1 year	1,496,546.74	1,562,837.04)
	(thereof due after more than 1 year	498,537.04	238,702.61)
3.	Trade payables	2,550,610.21	2,609,593.72
	(thereof due within 1 year	1,338,158.32	1,428,738.48)
	(thereof due after more than 1 year	1,212,451.89	1,180,855.24)
4.	Payables to affiliates	273,767.09	276,719.19
	(thereof due after more than 1 year	273,767.09	276,719.19)
5.	Payables to undertakings with which the company is linked by virtue of participating interests	0.00	50,180.00
	(thereof due within 1 year	0.00	50,180.00)

Liabilities and shareholders' equity

		31 Dec 2023 EUR	31 Dec 2022 EUR
6. Other liabilities		3,388,820.19	2,969,589.80
<i>(thereof due within 1 year</i>	2,001,343.19		1,582,112.80)
<i>(thereof due after more than 1 year</i>	1,387,477.00		1,387,477.00)
	451,287.99		
<i>(thereof for taxes</i>	1,197,081.40		376,168.28)
<i>(thereof for social security</i>			1,013,455.81)
		10,483,896.42	9,095,164.93
<i>(thereof due within 1 year</i>	5,830,049.07		5,443,599.28)
<i>(thereof due after more than 1 year</i>	4,653,847.35		3,651,565.65)
E. Escrow liabilities		9,527,755.50	5,226,584.06
F. Accruals and deferred income		8,881,851.86	9,593,246.50
Total liabilities		72,424,223.16	65,968,169.10

	2023 EUR	2022 EUR
1. Revenue		
(a) Revenue	17,962,406.00	17,363,350.92
(b) Project-related other income	19,223,485.78	19,081,400.34
	37,185,891.78	36,444,751.26
2. Changes in the amount of services not yet chargeable	-247,578.95	-1,248,194.21
3. Other operating income		
(a) Income from disposal of non-current assets except for financial assets	12,197.75	10,357.10
(b) Income from reversal of provisions	764,304.74	450,073.29
(c) Income from reversal of investment grants	465,119.07	409,757.63
(d) Shareholder contribution	13,056,300.00	9,743,500.00
(e) Other	4,390,196.95	3,550,018.56
	18,688,118.51	14,163,706.58
4. Cost of materials and other services purchased		
(a) Cost of materials	2,345,395.99	2,041,135.17
(b) Costs of services purchased	1,882,893.30	1,715,359.89
	4,228,289.29	3,756,495.06
5. Cost of staff		
(a) Salaries	28,656,599.55	25,847,660.57
(b) Social benefits		
(aa) Expenses for old-age provision	1,165,085.41	528,301.58
(bb) Expenses for severance pay and contributions to Severance Pay and Pension Funds	1,293,512.26	827,679.50
(cc) Expenses for statutory social security contributions and payroll-related taxes and compulsory contributions	7,607,919.51	7,033,402.66
(dd) Other social benefits	205,358.56	159,110.48
	38,928,475.29	34,396,154.79
6. Amortisation of intangible non-current assets and depreciation of property, plant and equipment	4,145,481.98	3,622,357.00
7. Other operating expenses		
(a) Taxes, other than taxes stated in line 17	8,228.37	7,196.89
(b) Other	8,562,290.81	7,661,532.20
	8,570,519.18	7,668,729.09
8. Subtotal lines 1 to 7 (Operating result)	-246,334.40	-83,472.31

		2023 EUR	2022 EUR
9. Income from investments		40,310.33	23,898.66
(thereof from affiliates)	35,000.00		20,000.00)
10. Income from other securities		9,043.55	21,219.35
11. Other interest and similar income		83,110.75	154,558.63
12. Income from disposal and write-up of financial assets and securities held as current assets		0.00	20,337.49
13. Expenses for financial assets and securities held as current assets			
(a) Other		54,795.77	70,664.48
		54,795.77	70,664.48
14. Interest and similar expenses		85,049.15	48,003.18
(thereof from affiliates)	0.00		1,173.66)
15. Subtotal lines 9 to 14 (Financial result)		-7,380.29	101,316.47
16. Profit or loss before taxes (Subtotal lines 8 and 15)		-253,714.69	17,844.16
17. Income taxes		5,300.68	1,750.00
18. Profit or loss for the year = profit or loss after taxes		-259,015.37	16,094.16
19. Reversal of capital reserves			
(a) Appropriated		267,182.67	269,700.93
20. Reversal of retained earnings			
(a) Other reserves (free reserves)		12,720.00	12,720.00
21. Profit carried forward from previous year		1,905,717.17	1,607,202.08
22. Net profit for the year		1,926,604.47	1,905,717.17

NOTES to the financial statements for the financial year 2023 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 years (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	16.7 - 20
	(previous year: 5 - 6)	(16.7 - 20)
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 1,000.00 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 are 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 1.82% as at 31 December 2023 (previous year: 1.78%), a salary trend of 4.07% (previous year: 2.97%) 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 1.63% (previous year: 1.56%) 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 3(b) and allocations to provisions are stated in item 5 if they are attributable to staff costs; all others are recognised as other operating expenses in item 7(b) of the income statement.

Liabilities

Liabilities are recognised at the settlement amount 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 24,680,860.09 (previous year: kEUR 23,027.5) in total. In the financial year 2023 capital expenditure amounted to a total of EUR 5,805,308.98 (previous year: kEUR 6,502.1) and amortisation and depreciation amounted to EUR 4,145,481.98 (previous year: kEUR 3,622.4). In the financial year 2023 disposals at historical cost amounted to EUR 1,341,735.21 (previous year: kEUR 3,104.0).

Intangible assets include software and data transmission rights of a carrying amount of EUR 393,569.00 (previous year: kEUR 474.0). Additions of EUR 350,247.74 (previous year: kEUR 385.1) are attributable to the acquisition of licences and various software.

As at the balance sheet date **property, plant and equipment** amounted to EUR 20,585,017.90 (previous year: kEUR 18,864.7). 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 10,503,222.00 (previous year: kEUR 8,820.7) is made up of the net building value of EUR 3,504,936.00 (previous year: kEUR 3,628.4) and structural improvements worth EUR 3,751,092.00 (previous year: kEUR 3,222.5), which means that EUR 7,256,028.00 (previous year: kEUR 6,850.9) are attributable to buildings on land owned by the Company and an amount of EUR 3,247,194.00 (previous year: kEUR 1,969.7) is attributable to capital expenditure on buildings owned by others. Additions in a total amount of EUR 5,441,561.24 (previous year: kEUR 4,595.7) 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 1,063,633.66 (previous year: kEUR 2,210.4) 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 2023

	Interest		Equity EUR	Net profit or loss in EUR	Balance sheet date
	EUR	%			
ACIB GmbH	29,500.00	9.00%	4,476,673.93	181,430.91	31 Dec 2022
ALP.Lab GmbH	9,100.00	20.00%	80,617.71	44,811.51	31 Dec 2022
BEST - Bioenergy and Sustainable Technologies GmbH	20,000.00	10.00%	2,089,870.19	1,854,516.26	31 Mar 2023
CBmed GmbH	25,000.00	12.50%	2,649,611.63	2,449,611.63	31 Dec 2022
decide Clinical Software GmbH	42,500.00	10.00%	48,434.10	-376,565.90	31 Dec 2022
DIH SÜD GmbH	9,100.00	26.00%	748,004.94	0.00	31 Dec 2022
EPIG GmbH	8,750.00	25.00%	369,407.93	334,407.93	31 Dec 2022
FH JOANNEUM Gesellschaft mbH	10,828.25	14.90%	4,000,000.00	0.00	30 Jun 2023
Geo5 GmbH	8,000.00	10.00%	186,587.87	106,587.87	31 Dec 2022
Holz.Bau Forschungs GmbH	3,500.00	5.98%	430,497.53	371,997.53	31 Dec 2022
Human.technology Styria GmbH	2,450.00	7.00%	219,656.02	-1,007.81	31 Dec 2022
Know-Center GmbH Research Center for Data-Driven Business & Big Data Analytics	14,540.00	10.00%	1,359,835.79	0.00	31 Dec 2022
Materials Center Leoben Forschung GmbH	51,100.00	17.50%	8,551,258.51	750,106.85	31 Dec 2022
Pacemaker Technologies GmbH	1,050.00	3.00%	25,892.79	-9,107.21	31 Dec 2022
Polymer Competence Center Leoben GmbH	34,000.00	17.00%	5,691,837.93	30,627.58	31 Dec 2022
Rebeat Innovation GmbH	80,000.00	1.70%	n.a.	n.a.	bankruptcy
Research Center Pharmaceutical Engineering GmbH	15,000.00	15.00%	5,624,731.26	769,835.26	30 Jun 2023
Virtual Vehicle Research GmbH	10,640.00	8.40%	7,282,905.69	1,213,701.36	31 Dec 2022

As at the balance sheet date the carrying amount of **investment securities** was EUR 3,264,484.94 (previous year: kEUR 3,264.5).

Write-up or write-down

In the reporting year the Company refrained from recording a write-down of financial assets of EUR 378,616.50 (previous year: 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 2,842.44 (previous year: kEUR 3.1) 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 charged in the amount of EUR 8,684,972.35 (previous year: kEUR 2,549.4), under which administrative overheads of EUR 1,620,745.17 (previous year: kEUR 1,833.9) 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 5,563,241.33 (previous year: kEUR 6,383.1) were deducted. The amount exceeding the services not yet chargeable of EUR 1,995,083.78 (previous year: kEUR 1,801.5) was recognised on the liabilities side.

Advances made on inventories amount to EUR 30,790.28 (previous year: kEUR 40.7).

Receivables and other assets

	Receivables as at 31 Dec 2023 (31 Dec 2022)	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	9,324,888.56 (6,904,534.45)	0.00 (0.00)	0.00 (0.00)	7,036,766.33 (5,063,753.21)	46,600.00 (38,000.00)
Receivables from affiliates	26,007.66 (28,458.23)	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	159,655.52 (207,043.73)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	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	10,677,976.72 (6,627,242.62)	0.00 (0.00)	0.00 (0.00)	10,613,647.99 (6,586,733.90)	0.00 (0.00)
TOTAL	25,788,528.46 (19,376,279.03)	0.00 (0.00)	0.00 (0.00)	23,250,414.32 (17,250,487.11)	46,600.00 (38,000.00)

Trade receivables amounted to EUR 2,288,122.23 (previous year: kEUR 1,840.8), and itemised allowances in the amount of EUR 961,188.28 (previous year: kEUR 1,028.7) were made for doubtful receivables and deducted from the assets, on the one hand, whereas receivables from subsidies and project grants of EUR 7,036,766.33 (previous year: kEUR 5,063.8), which concern grant approvals from various funding agencies, were consolidated under this item for the first time as at 31 December 2023. Therefore, previous year's figures are not comparable.

Due to the fact that processing, including receipt of subsidies and project grants, takes more than three months, a discount in the amount of EUR 28,200.00 (previous year: kEUR 11.8) was made. The calculatory interest rate was 1.03% (previous year: 0.52%).

Accordingly, **trade receivables** amount to EUR 9,324,888.56 (previous year: kEUR 6,904.5).

Receivables from affiliates concern trade receivables.

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 for Large Enterprises, and receivables from the Tax Office for Large Enterprises from research allowances in the amount of EUR 10,536,572.46 (previous year: kEUR 6,177.6).

Cash and balances at banks

This item in the amount of EUR 5,948,265.26 (previous year: kEUR 12,632.2) is made up of **cash** in the amount of EUR 7,847.86 (previous year: kEUR 7.1) and **bank balances** of EUR 5,940,417.40 (previous year: kEUR 12,616.2). Pending transactions in the amount of EUR 8,961.07 (previous year: kEUR 9.0), which were recognised as other receivables in the previous year, have been recognised under the item 'balances at banks' for the first time in the reporting year, which means that the previous year's figures are not comparable.

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). In the balance sheet as at 31 December 2023 this item has been recognised under item "C" for the first time (previous year: item "D").

PREPAYMENTS AND ACCRUED INCOME

Prepayments and accrued income in the amount of EUR 3,323,450.11 (previous year: kEUR 3,121.5) include payments made in the financial year 2023 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 2,725,937.33 (previous year: kEUR 2,802.2). In the balance sheet as at 31 December 2023 this item is stated under item "D" for the first time (previous year: item "C").

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 and 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) are held by Wirtschaftsagentur Burgenland GmbH.

Taking into account the **loss for the year** of EUR 259,015.37 (previous year: profit for the year of EUR 16,094.16) and the reversal of capital reserves of EUR 267,182.67 (previous year: EUR 269,700.93), of retained earnings of EUR 12,720.00 (previous year: EUR 12,720.00) and the **profit carryforward** of EUR 1,905,717.17 (previous year: EUR 1,607,202.08), the resulting **net profit for the year** is EUR 1,926,604.47 (previous year: EUR 1,905,717.17).

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 2023 a shareholder contribution of EUR 40,000.00 by BABEG – Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. is carried forward to financial 2024 under other reserves.

SPECIAL ITEMS FOR INVESTMENT GRANTS FROM PUBLIC FUNDS

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

	As at 1 Jan 2023	Additions	Consumption according to depreciation	Reversal	Reclassi- fication or corrections	As at 31 Dec 2023
	EUR	EUR	EUR	EUR	EUR	EUR
Property, plant and equipment						
1. Buildings, including buildings on land owned by others	1,154,987.00	33,334.68	-129,383.68	0.00	0.00	1,058,938.00
2. Machinery, scientific equipment and electronic data processing systems	920,078.86	270,135.53	-333,326.39	0.00	0.00	856,888.00
3. Other plant, furniture and fixtures	7,712.00	0.00	-2,409.00	0.00	0.00	5,303.00
Financial assets						
1. Financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Total	2,082,777.86	303,470.21	-465,119.07	0.00	0.00	1,921,129.00

PROVISIONS

An amount of EUR 0.00 (previous year: kEUR 58.6) of the **provisions for severance pay** was used. In order to meet the cover requirement of EUR 6,318,700.00 (previous year: kEUR 5,682.0), an amount of EUR 636,700.00 (previous year: kEUR 256.9) was allocated to the provision.

An amount of EUR 373,975.41 (previous year: kEUR 346.5) of the **pension provisions** (former managing director) was used for pension payments. In order to meet the actuarial cover requirement of EUR 6,684,680.00 (previous year: kEUR 5,893.6), an amount of EUR 1,165,085.41 (previous year: kEUR 528.3) 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 3,254,200.00 (previous year: kEUR 2,658.4) 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 2,799,100.0 (previous year: kEUR 2,476.0), provisions for potential claims for refund of various

funding parties in the amount of EUR 942,000.00 (previous year: kEUR 1,220.3), the provision for working time credits in the amount of EUR 895,300.00 (previous year: kEUR 780.3) and the provision for anticipated losses or costs of work in progress in the amount of EUR 443,300.00 (previous year: kEUR 629.6).

This item also includes the **provision for the tax audit** by the Tax Office for Large Enterprises 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 2,275,615.15 (previous year: kEUR 1,387.5) includes an export fund credit line of EUR 712,193.77 (previous year: kEUR 712.2), a loan for the acquisition of the property EZ [folio number] 458 GB [Land Register] 60340 in Niklasdorf in the amount of EUR 576,861.42 (previous year: kEUR 675.3) and a loan for the acquisition of a usufruct right in W.E.I.Z IV at Franz-Pichler-Strasse 34, 8160 Weiz, in the amount of EUR 986,555.16 (previous year: kEUR 0.0).

The two investment loans amount to a total of EUR 1,563,416.58 (previous year: kEUR 675.3 only for the loan concerning the Niklasdorf property), with EUR 281,802.25 (previous year: kEUR 137.6) having a remaining term of up to one year, and EUR 1,281,614.33 (previous year: kEUR 567.8) a remaining term of more than one year.

Bank borrowings include liabilities with a remaining term of more than five years in the amount of EUR 0.00 (previous year: kEUR 537.7).

Advances received on orders that could not be deducted from inventories in the financial year were a net amount of EUR 1,995,083.78 (previous year: kEUR 1,801.5).

As at the balance sheet date **trade payables** were EUR 2,550,610.21 (previous year: kEUR 2,609.6), predominantly to Austrian suppliers.

Trade payables include liabilities with a remaining term of more than five years in the amount of EUR 41,152.25 (previous year: kEUR 0.0).

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.

Other liabilities include expenses in the amount of EUR 2,054,613.57 (previous year: kEUR 1,674.7), 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 2024 to 2028
	EUR	EUR
Room rents	944,597.00	4,722,986.00
(previous year)	(1,009,401.00)	(5,047,005.00)
Equipment rents	50,127.00	250,634.00
(previous year)	(51,049.00)	(225,743.00)
Total	994,724.00	4,973,620.00
(previous year)	(1,060,450.00)	(5,272,748.00)

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). In the balance sheet as at 31 December 2023 this item has been recognised under item "E" for the first time (previous year: item "F").

ACCRUALS AND DEFERRED INCOME

Accruals and deferred income in the amount of EUR 8,881,851.86 (previous year: kEUR 9,593.2) concern advances made by funding parties, and royalties. In the balance sheet as at 31 December 2023 this item is stated under item "F" for the first time (previous year: item "E").

CONTINGENT LIABILITIES

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

NOTES TO THE INCOME STATEMENT

Revenues generated in the financial year 2023 are classified according to areas of activity and divided into domestic and international revenues:

Amounts in EUR	Financial year 2023	Financial year 2022
Domestic revenues		
Research	6,915,252.51	6,481,881.95
Royalties	490,480.34	350,988.73
Congress fees	4,858.15	8,528.57
Other	1,986,939.25	1,874,819.47
Total domestic revenues	9,397,530.25	8,716,218.72
International revenues		
Research	8,425,286.32	8,530,535.99
Royalties	136,511.00	54,002.87
Congress fees	920.00	62,301.67
Other	2,158.43	291.67
Total international revenues	8,564,875.75	8,647,132.20

As at 31 December 2023 several items were restated, which means that the previous year's figures are not comparable, namely:

Under item **1 Revenues** the items "Revenues" in the amount of EUR 17,962,406.00 (previous year: kEUR 17,363.4) and "Project-related other income" in the amount of EUR 19,223,485.78 (previous year: kEUR 19,081.4) were consolidated as at 31 December 2023.

Accordingly, item **1 Revenues** shows a total amount of EUR 37,185,891.78 (previous year: kEUR 36,444.8).

Item **3 Other operating income** presents "(a) Income from disposal of non-current assets, except for financial assets" in the amount of EUR 12,197.75 (previous year: kEUR 10.4), "(b) Income from reversal of provisions" in the amount of EUR 764,304.74 (previous year: kEUR 450.1), "(c) Income from reversal of investment grants" in the amount of EUR 465,119.07 (previous year: kEUR 409.8), "(d) Shareholder contribution" in the amount of EUR 13,056,300.00 (previous year: kEUR 9,743.5) and "(e) Other" in the amount of EUR 4,390,196.95 (previous year: kEUR 3,550.0) as at 31 December 2023.

Item **3 Other operating income** therefore amounts to EUR 18,688,118.51 (previous year: kEUR 14,163.7) in the aggregate.

The expenses of EUR 1,293,512.26 (previous year: kEUR 827.7) stated in item 5.(bb) include contributions to Severance Pay and Pension Funds in the amount of EUR 316,602.84 (previous year: kEUR 285.5) and expenses for severance pay in the amount of EUR 976,909.42 (previous year: kEUR 542.2).

OTHER DISCLOSURES

Shares in affiliates and participating interests

As at the balance sheet date 31 December 2023 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 2023 show equity in the amount of EUR 1,377,072.81 (previous year: EUR 1,431,394.32), which includes a net profit for the year of EUR 1,077,072.81 (previous year: EUR 1,131,394.32). The loss for the year was EUR 18,750.23 (previous year: profit for the year of EUR 92,633.76).

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 2022 show equity in the amount of EUR 369,407.93 (previous year: EUR 348,718.13), which includes a net profit for the year of EUR 334,407.93 (previous year: EUR 313,718.13).

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 2022 show equity in the amount of EUR 748,004.94 (previous year: EUR 502,422.74), which includes a net profit for the year of EUR 0.00 (previous year: EUR 0.00).

The Company also holds an investment in ALP.Lab GmbH, which as at the balance sheet date 31 December was 20% of the shares or EUR 9,100.00 (previous year: EUR 9,100.00). The financial statements for the year ended 31 December 2022 show equity in the amount of EUR 80,614.71 (previous year: EUR 25,264.91), which includes a net profit for the year of EUR 35,076.42 (previous year: net loss for the year of EUR 9,735.09).

All other participating interests are below 20%.

Staff

As at the balance sheet date the Company had 511 (previous year: 489) employees; taking part-time employees into account on a pro-rata basis, the number of staff was 417.1 (previous year: 406.5). Taking part-time employees into account on a pro-rata basis, the average number of employees was 412.8 (previous year: 404.1).

In application of the provisions of Section 242(4) *UGB* the Company has partly refrained from itemising salaries, severance pay or pensions for the management as defined in Section 239(1) *UGB*. As at the balance sheet date of the reporting year expenses for old-age provision in the amount of EUR 1,165,085.41 (previous year: kEUR 528.3) 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 116,953.62 (previous year: kEUR 112.3) 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 2023.

Bodies of the Company in the financial year 2023:

SCIENTIFIC ADVISORY BOARD

Gerald SCHÖPFER
Chairman

Gerhard FRIEDRICH
Deputy Chairman

Gernot HANREICH
Deputy Chairman

Hansjörg ALBRECHER

Horst BISCHOF
(until 30 June 2023)

Michaela FRITZ

Günter GETZINGER

Franz HAAS
(from 1 February 2023)

Manfred HUSTY
(until 31 December 2022)

Mario MÜLLER

Michael PATAK

Reinhard PETSCHACHER

Thomas POCK
(from 1 July 2023)

Herbert RITTER

Karin SCHAUPP

Waltraud SCHINKO-NEUROTH

Caroline SCHOBER

Stefan TASCH

Frank UHLIG

SUPERVISORY BOARD

Martin WIEDENBAUER
Chairman

Fritz SPERL
Deputy Chairman

Erlfried TAURER
Deputy Chairman

Klaus HATZL

Werner HAUSER

Michaela KRENN

Rupert PICHLER

Bettina SCHRITTWIESER

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

Management:

Heinz Mayer

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 2,465.10) and SFL technologies Science Tower GmbH (EUR 36,000.00) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (EUR 71,113.27) and a bid bond (*Vadium*) vis-à-vis VRT (Vlaamse Radio- en Televisieomroeporganisatie) Aankoopdienst, Belgium (EUR 2,500.00) were recognised.

In the previous year 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) were presented pursuant to Section 199 *UGB*.

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 15,643.00 (previous year: EUR 14,250.00). 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, 14 March 2024

The Management



DI Dr. Heinz Mayer

DEVELOPMENT OF NON-CURRENT ASSETS

	Cost of acquisition						Accumulated amortisation and depreciation				Carrying amounts	
	1 Jan 2023	Additions	Disposals	Reclassification	31 Dec 2023	EUR	1 Jan 2023	Additions	Disposals	31 Dec 2023	31 Dec 2022	31 Dec 2023
	EUR	EUR	EUR	EUR	EUR		EUR	EUR	EUR	EUR	EUR	EUR
(I) Intangible assets												
Software, data transmission rights and other rights	3,749,407.41	350,247.74	278,101.55	15,655.50	3,837,209.10		3,275,429.41	446,312.24	278,101.55	3,443,640.10	473,978.00	393,569.00
Total intangible assets	3,749,407.41	350,247.74	278,101.55	15,655.50	3,837,209.10		3,275,429.41	446,312.24	278,101.55	3,443,640.10	473,978.00	393,569.00
(II) Property, plant and equipment												
(1) Land, rights equivalent to land and buildings, including buildings on land owned by others												
(a) Land value	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
(b) Building value	20,032,287.64	1,843,189.58	25,226.58	693,750.79	22,544,001.43		11,211,637.64	852,496.37	23,354.58	12,040,779.43	8,820,650.00	10,503,222.00
Subtotal land and buildings	22,910,081.66	1,843,189.58	25,226.58	693,750.79	25,421,795.45		11,211,637.64	852,496.37	23,354.58	12,040,779.43	11,698,444.02	13,381,016.02
(2) Machinery, scientific equipment and EDP systems	33,304,666.66	2,833,792.95	813,769.18	181,530.30	35,506,220.73		27,758,522.66	2,454,741.25	813,497.18	29,399,766.73	5,546,144.00	6,106,454.00
(3) Other plant, furniture and fixtures	4,001,246.77	297,796.69	97,949.78	4,650.31	4,205,743.99		3,315,908.77	265,964.00	94,347.78	3,487,524.99	685,338.00	718,219.00
(4) Advances made and construction in progress	937,721.33	340,813.90	720.00	-898,486.35	379,328.88		0.00	0.00	0.00	0.00	937,721.33	379,328.88
Offsetting of input tax on advances for non-current assets	-2,899.45	0.00	0.00	2,899.45	0.00		0.00	0.00	0.00	0.00	-2,899.45	0.00
Subtotal advances made and construction in progress	934,821.88	340,813.90	720.00	-895,586.90	379,328.88		0.00	0.00	0.00	0.00	934,821.88	379,328.88
(5) Low-value assets	0.00	125,968.12	125,968.12	0.00	0.00		0.00	125,968.12	125,968.12	0.00	0.00	0.00
Total property, plant and equipment	61,150,816.97	5,441,561.24	1,063,633.66	-15,655.50	65,513,089.05		42,286,069.07	3,699,169.74	1,057,167.66	44,928,071.15	18,864,747.90	20,585,017.90
(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	354,288.25	13,500.00	0.00	0.00	367,788.25		80,000.00	0.00	0.00	80,000.00	274,288.25	287,788.25
(3) Investment securities (book-entry securities)	3,300,335.30	0.00	0.00	0.00	3,300,335.30		35,850.36	0.00	0.00	35,850.36	3,264,484.94	3,264,484.94
Total financial assets	3,804,623.55	13,500.00	0.00	0.00	3,818,123.55		115,850.36	0.00	0.00	115,850.36	3,688,773.19	3,702,273.19
TOTAL NON-CURRENT ASSETS	68,704,847.93	5,805,308.98	1,341,735.21	0.00	73,168,421.70		45,677,348.84	4,145,481.98	1,335,269.21	48,487,561.61	23,027,499.09	24,680,860.09

MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2023

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz

The Management Report covers the reporting period of the financial year 2023 from 1 January 2023 to 31 December 2023 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 2023 JOANNEUM RESEARCH was organised in seven research units, which represent the main areas of activities.

Research units
DIGITAL – Institute for Digital Technologies
MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies
ROBOTICS – Institute for Robotics and Flexible Production
COREMED – Centre for Regenerative and Precision Medicine
HEALTH – Institute for Biomedical Research and Technologies
LIFE – Institute for Climate, Energy Systems and Society
POLICIES – Institute for Economic, Social and Innovation Research

I.2 Branches

The Company has no branches.

I.3 Course of business

As at 31 December 2023 the orders on hand amounted to EUR 90.1 million. Work on hand amounted to EUR 50.0 million, the value of offers submitted was approximately EUR 34.4 million. The profit for the financial year 2023 amounts to EUR 20,887.30 (previous year: kEUR 298.5). Accordingly, the calculated self-financing ratio (operating result / total expenses) was 76% (previous year: 80%).

In the financial year 2023 the operating result from contract research projects amounted to approximately EUR 18.1 million (previous year: EUR 16.5 million) and funded research projects generated an operating result of approximately EUR 19.7 million (previous year: EUR 19.5 million).

At an international level JOANNEUM RESEARCH generated revenues from contract research projects and funded research projects of approximately EUR 16.4 million in the aggregate in the reporting year (previous year: EUR 15.3 million). An amount of approximately EUR 7.9 million thereof (previous year: EUR 6.8 million) is attributable to projects with the European Union, and contract research projects account for approximately EUR 8.5 million (previous year: EUR 8.5 million). Participation of JOANNEUM RESEARCH in calls for proposals by the European Space Agency (ESA) generated revenues of approximately EUR 0.7 million in the aggregate in the financial year 2023.

Under the Horizon Europe programme projects with a funding volume of approximately EUR 8.4 million were awarded to the Company, and in connection with ESA projects an order volume of approximately EUR 0.5 million was solicited.

In the financial year 2023 revenues of approximately EUR 7.6 million (previous year: EUR 7.9 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 approximately 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 2023 the attributable business share amounted to approximately EUR 15.8 million.

1.3.1 Financial position

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

As at the balance sheet date, 31 December 2023, JOANNEUM RESEARCH had a balance sheet total of approximately EUR 72.4 million (previous year: EUR 66.0 million). This is comprised of non-current assets in the amount of approximately EUR 24.7 million and current assets (inclusive of prepayments and accrued income, and escrow funds) of approximately EUR 47.7 million.

As at 31 December 2023 the shareholders' equity including investment grants amounted to approximately EUR 12.5 million (thereof investment grants of approximately EUR 1.9 million) or 17% of the balance sheet total compared to approximately EUR 12.9 million or 20% of the previous year's balance sheet total. Borrowings (inclusive of accruals and deferred income, and escrow liabilities) increased by approximately EUR 6.8 million to approximately EUR 59.9 million (previous year: EUR 53.1 million) and amounted to 83% (previous year: 80%) of the balance sheet total.

In the financial year 2023 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 3.5 million (previous year: EUR 3.1 million). Working capital (current assets minus short-term borrowings) was approximately EUR 5.7 million (previous year: EUR 5.2 million).

No derivative financial instruments were used in the past financial year 2023. 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 2023 the operating result including own work capitalised and other operating income net of shareholder contribution and research allowance amounted to approximately EUR 38.2 million (previous year: EUR 36.1 million).

Domestic revenues accounted for 56% and international revenues accounted for 44% 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 approximately EUR 5.6 million were deducted on the face of the balance sheet from services not yet chargeable in the amount of approximately EUR 8.7 million.

The expenses of approximately EUR 55.9 million (previous year: EUR 49.4 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 38.9 million (previous year: EUR 34.4 million), cost of materials and other services purchased of approximately EUR 4.2 million (previous year: EUR 3.8 million), amortisation and depreciation of approximately EUR 4.1 million (previous year: EUR 3.6 million) and other operating expenses of approximately EUR 8.7 million (previous year: approximately EUR 7.6 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 Company's mission.

The Company closed the financial year 2023 with a loss before taxes (formerly profit or loss on ordinary activities) of -EUR 253,714.69. Taking into account income taxes of EUR 5,300.68, reversal of reserves in the amount of EUR 279,902.67 and the profit of EUR 1,905,717.17 carried forward from the previous year, the net profit for the year is EUR 1,926,604.47.

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 2023.

1.3.3 Capital expenditure report

In the financial year 2023 approximately EUR 5.4 million (previous year: EUR 4.6 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)

At a global level, economic performance stabilised, even though the development is sluggish and there are no signs of acceleration yet.

Both in the EU and the Eurozone, economic stagnation still prevails. Compared to the previous quarter no GDP growth (0.0%) was recorded in the EU, and the Eurozone even recorded a slight decline of -0.1% (WIFO [Austrian Institute of Economic Research] Monthly Report 12/2023). However, the upsurge in prices was successfully controlled, as the inflation rate in the Eurozone was driven down to 2.9% in October, and to 2.4% in November.

In Austria, after a decline of -1.1% in the second quarter of 2023, GDP decreased by another -0.5% in the third quarter, with almost all lines of industry being affected by the recession. Economic forecasts of Austrian business enterprises continue to be dominated by slight scepticism. Contrary to pan-European developments, inflation decreases more slowly in Austria, being at 5.4% in November, according to a quick estimate by Statistics Austria.

On a positive note, the constant increase in Austria's research ratio has to be highlighted. The previous year's share of research expenditure in GDP was estimated at 3.22% (Statistics Austria press release: 13 050-078/23 of 21 April 2023), which means that Austria ranks third in the EU-wide ranking. Research and development expenditure amounted to EUR 15.5 billion in the aggregate, EUR 7.8 billion of which were raised by business enterprises (50%), EUR 5.1 billion were government funding (33%), and EUR 2.6 billion (17%) 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 2023	FY 2022	FY 2023	FY 2022
State of Styria	10,527.8	7,700.0		
State of Carinthia	2,064.0	1,579.0		
State of Burgenland	464.5	464.5		
BMK			2,641.1	2,566.9
Total	13,056.3	9,743.5	2,641.1	2,566.9

Risks and prospective development

Financial 2024 will continue to remain tense because of inflation, in particular against the background of recent economic developments, which indicate an increasing reluctance on the part of industry and commerce. The landscape of non-university research is challenging *per se*; in addition, cost increases driven by inflation have a major impact on staff and energy costs. Those increases will need to be balanced on the research market. We intend to respond to those challenges by continuing with our targeted strategic focus. The situation on the labour market in the fight for top talent is not expected to ease significantly in 2024 either.

Against the background of these difficult framework conditions the Company will use all efforts to expand its excellent research output and achieve its envisaged goals in the best possible way.

IT security at JOANNEUM RESEARCH

For 2023 a study on this subject (KPMG – Cybersecurity in Austria 2023) showed an increase in cyberattacks by 201% compared to the previous year.

Apart from the technological aspects of a cybercrime incident, be it due to security vulnerabilities or inadequately configured security systems, the human factor still constitutes the easiest way to attack. Often, 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 and cybersecurity awareness must be raised to reduce vulnerability to cyberattacks. The recent increase in use of AI models, which are also increasingly used for attacks, is one of the reasons why continuing awareness training alongside security measures are crucial elements of cyber resilience.

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. A cybersecurity policy must adequately take into account the ever increasing use of cloud services as well.

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 on a regular basis.

III. Report on research and development

III.1 Research units

DIGITAL – Institute for Digital Technologies

Activities planned for financial 2024

DIGITAL sees itself as a product innovator and business enabler that supports business entities in developing new services and business models. Bespoke models for cooperation with customers are designed, reaching from concept studies via development projects up to the developing of prototypes or microseries. In this context the Institute takes up the topics of digital transformation, environment and climate, as well as security and defence. In 2024 successful and established products, such as AKUT, the imdas pro product family, disdrometres, tracking receivers, vislvis or VidiCert are being enhanced.

MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies

Activities planned for financial 2024

MATERIALS has been pursuing a strategy of interdisciplinary collaboration of its research groups for many years to use the strengths of the groups with higher critical mass. 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. Specific topics, which will become important in collaboration projects with the other Institutes in future, include: artificial intelligence, LCA, statistics, sensor fusion, organic and hybrid electronics, PyzoFlex, additive manufacturing, and visual light communication.

ROBOTICS – Institute for Robotics and Flexible Production

Activities planned for financial 2024

In financial 2024 the Institute will be further expanded towards an "Institute for Robotics and Flexible Production" in a second development stage (ROBOTICS 2.0), with the R&D portfolio being further enhanced in the area of production automation to cover all aspects of flexible production. The thread of automated production will constitute the supplementary basis for this thematic advancement and continue to establish new and application-oriented topics of sustainable production automation.

COREMED – Centre for Regenerative and Precision Medicine

Activities planned for financial 2024

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. In particular the area of in-vitro skin models is planned to be strengthened further in 2024. With respect to the pre-clinical in-vivo portfolio the Institute will continue to pursue establishing and characterising skin ageing models in financial 2024. Ageing will also be at the core of the work of the new Healthy Ageing and Sustainability competence group.

HEALTH – Institute for Biomedical Research and Technologies

Activities planned for financial 2024

The Institute's R&D portfolio is guided by the key topics of "dermato-pharmacological research", "neuro-pharmacological research", "metabolic research" and "digital healthcare". Accordingly, its activities in 2024 will be aligned with these key topics. The Institute's business model aims to balance contract research projects, funded research projects and its own research projects, as well as to gain medium to long-term income from licence fees and maintenance as a substantial funding source.

LIFE – Institute for Climate, Energy Systems and Society

Activities planned for financial 2024

LIFE combines research of scientific excellence with a strong focus on topics of practical relevance in the area of climate, energy and social systems. In 2024 the activities in the mobility segment will focus on traffic and infrastructure, public transport technologies and the areas of models, simulation and assessment. In its environment and sustainability segment, LIFE works on solutions contributing to the energy transition, climate-resilient and climate-neutral systems, as well as to recycling and sustainable utilisation of resources.

POLICIES – Institute for Economic, Social and Innovation Research

Activities planned for financial 2024

POLICIES' current research and services portfolio will prove to be very competitive also in 2024. For the next few years intensified activities are planned in the areas of 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.

Graz, 14 March 2024

The Management:



DI Dr. Heinz Mayer



Consolidated financial statements

JOANNEUM RESEARCH

Auditor's Report on the Consolidated 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 statement of financial position as of 31 December 2023, 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 2023 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 Consolidated Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

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.

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 Consolidated Financial Statements

JOANNEUM RESEARCH Forschungsgesellschaft
mbH - Group

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 Consolidated 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, 14 March 2024

Steirische Prüfungs- und BeratungsGmbH


Dr. Doris Maier

Certified auditor and tax consultant

Graz

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 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 alternated versions.

Steirische Prüfungs- und BeratungsGmbH

Assets

	31 Dec 2023 EUR	31 Dec 2022 EUR
A. Non-current assets		
I. Intangible assets		
1. Rights and licences	402,068.37	485,654.31
II. Property, plant and equipment		
1. Land and buildings	13,384,012.30	11,702,313.98
2. Technical plant and machinery	6,191,916.13	5,651,692.15
3. Other plant, furniture and fixtures	836,620.96	757,420.88
4. Advances made and construction in progress	379,328.88	934,821.88
	<u>20,791,878.27</u>	<u>19,046,248.89</u>
III. Financial assets		
1. Shares in affiliates	0.00	0.00
2. Participating interests	287,788.25	274,288.25
3. Investment securities (book-entry securities)	3,264,484.94	3,264,484.94
	<u>3,552,273.19</u>	<u>3,538,773.19</u>
	24,746,219.83	23,070,676.39
B. Current assets		
I. Inventories		
1. Raw materials and supplies	2,842.44	3,057.59
2. Finished products and goods	106,471.96	73,215.57
3. Services not yet chargeable	10,393,685.35	9,959,939.91
less advances received	-6,946,914.29	-7,127,441.04
4. Advances made	30,790.28	40,662.00
	<u>3,586,875.74</u>	<u>2,949,434.03</u>
II. Receivables and other assets		
1. Trade receivables	9,429,921.79	7,230,217.40
<i>(thereof due within 1 year</i>	<i>9,429,921.79</i>	<i>7,230,217.40)</i>
2. Receivables from undertakings with which the company is linked by virtue of participating interests	159,655.52	207,043.73
<i>(thereof due within 1 year</i>	<i>159,655.52</i>	<i>207,043.73)</i>

Assets

		31 Dec 2023 EUR	31 Dec 2022 EUR
3. Other receivables and assets		16,376,348.95	12,332,574.86
<i>(thereof due within 1 year</i>	<i>16,376,348.95</i>		<i>12,330,174.86)</i>
<i>(thereof due after more than 1 year</i>	<i>0.00</i>		<i>2,400.00)</i>
		25,965,926.26	19,769,835.99
<i>(thereof due within 1 year</i>	<i>25,965,926.26</i>		<i>19,767,435.99)</i>
<i>(thereof due after more than 1 year</i>	<i>0.00</i>		<i>2,400.00)</i>
III. Cash and balances at banks		7,648,676.13	14,109,008.83
		37,201,478.13	36,828,278.85
C. Escrow funds		9,527,755.50	5,226,584.06
D. Prepayments and accrued income		3,330,076.20	3,130,023.91
Total assets		74,805,529.66	68,255,563.21

Liabilities and shareholders' equity

		31 Dec 2023 EUR	31 Dec 2022 EUR
A. Equity			
I.	Share capital called in and paid up	3,600,000.00	3,600,000.00
II.	Capital reserves		
	1. Appropriated	3,599,078.25	3,866,260.92
	2. Unappropriated	362,637.44	362,637.44
		<u>3,961,715.69</u>	<u>4,228,898.36</u>
III.	Retained earnings		
	1. Statutory reserves	360,000.00	360,000.00
	2. Other reserves (free reserves)	864,590.22	837,310.22
		<u>1,224,590.22</u>	<u>1,197,310.22</u>
IV.	Net profit for the year	3,003,677.28	3,036,540.21
	(thereof profit carried forward	3,036,540.21	2,665,391.36)
		<u>11,789,983.19</u>	<u>12,062,748.79</u>
B. Investment grants		1,928,613.69	2,091,629.07
C. Provisions			
	1. Provisions for severance pay	6,656,293.00	6,012,130.00
	2. Provisions for pensions	6,684,680.00	5,893,570.00
	3. Tax provisions	8,081,200.00	7,485,650.00
	4. Other provisions	10,132,656.33	10,304,514.00
		<u>31,554,829.33</u>	<u>29,695,864.00</u>
D. Liabilities			
1.	Bank borrowings	2,275,615.15	1,389,095.21
	(thereof due within 1 year	994,000.82	821,283.60)
	(thereof due after more than 1 year	1,281,614.33	567,811.61)
2.	Advances received on orders	2,727,985.58	2,431,315.26
	(thereof due within 1 year	2,176,090.50	1,614,009.73)
	(thereof due after more than 1 year	551,895.08	817,305.53)
3.	Trade payables	2,614,540.18	2,672,411.20
	(thereof due within 1 year	1,402,088.29	1,491,555.96)
	(thereof due after more than 1 year	1,171,299.64	1,180,855.24)
4.	Payables to undertakings with which the company is linked by virtue of participating interests	0.00	50,180.00
	(thereof due within 1 year	0.00	50,180.00)

Liabilities and shareholders' equity

		31 Dec 2023 EUR	31 Dec 2022 EUR
5. Other liabilities		3,477,752.14	3,042,489.12
<i>(thereof due within 1 year</i>	2,090,275.14		1,655,012.12)
<i>(thereof due after more than 1 year</i>	1,387,477.00		1,387,477.00)
<i>(thereof for taxes</i>	538,873.49		419,808.77)
<i>(thereof for social security</i>	1,197,142.57		1,014,770.81)
		11,095,893.05	9,585,490.79
<i>(thereof due within 1 year</i>	6,662,454.75		5,632,041.41)
<i>(thereof due after more than 1 year</i>	4,392,286.05		3,953,449.38)
E. Escrow liabilities		9,527,755.50	5,226,584.06
F. Accruals and deferred income		8,908,454.90	9,593,246.50
Total liabilities		74,805,529.66	68,255,563.21

	2023 EUR	2022 EUR
1. Revenue		
(a) Revenue	19,687,286.75	19,642,035.22
(b) Project-related other income	19,223,485.78	19,081,400.34
	38,910,772.53	38,723,435.56
2. Changes in the amount of services not yet chargeable	433,745.44	-1,236,812.60
3. Other operating income		
(a) Income from disposal of non-current assets except for financial assets	12,197.75	10,357.10
(b) Income from reversal of provisions	764,304.74	450,073.29
(c) Income from reversal of investment grants	466,485.59	411,275.27
(d) Shareholder contribution	13,056,300.00	9,743,500.00
(e) Other	4,427,609.54	3,685,920.51
	18,726,897.62	14,301,126.17
4. Cost of materials and other services purchased		
(a) Cost of materials	2,923,714.23	2,614,565.53
(b) Costs of services purchased	2,055,811.01	1,876,919.56
	4,979,525.24	4,491,485.09
5. Cost of staff		
(a) Wages	8,273.15	8,956.36
(b) Salaries	29,715,837.32	26,818,946.70
(c) Social benefits		
(aa) Expenses for old-age provision	1,165,085.41	528,301.58
(bb) Expenses for severance pay and contributions to Severance Pay and Pension Funds	1,311,092.84	876,142.78
(cc) Expenses for statutory social security contributions and payroll-related taxes and compulsory contributions	7,894,530.95	7,287,841.65
(dd) Other social benefits	220,771.45	164,902.84
	40,315,591.12	35,685,091.91
6. Amortisation of intangible non-current assets and depreciation of property, plant and equipment	4,213,536.67	3,686,773.58
7. Other operating expenses		
(a) Taxes, other than taxes stated in line 17	12,456.48	9,625.78
(b) Other	8,814,974.38	7,906,716.68
	8,827,430.86	7,916,342.46
8. Subtotal lines 1 to 7 (Operating result)	-264,668.30	8,056.09

	2023 EUR	2022 EUR
9. Income from investments	5,310.33	3,898.66
10. Income from other securities	9,043.55	21,219.35
11. Other interest and similar income	86,653.39	155,490.38
12. Income from disposal and write-up of financial assets and securities held as current assets	0.00	20,337.49
13. Expenses for financial assets and securities held as current assets		
(a) Write-downs	0.00	0.00
(b) Other	54,795.77	70,664.48
	54,795.77	70,664.48
14. Interest and similar expenses	88,007.03	46,859.57
15. Subtotal lines 9 to 14 (Financial result)	-41,795.53	83,421.83
16. Profit or loss before taxes (Subtotal lines 8 and 15)	-306,463.83	91,477.92
17. Income taxes	6,301.77	2,750.00
18. Profit or loss for the year = profit or loss after taxes	-312,765.60	88,727.92
19. Reversal of capital reserves		
(a) Appropriated	267,182.67	269,700.93
20. Reversal of retained earnings		
(a) Other reserves (free reserves)	12,720.00	12,720.00
21. Profit carried forward from previous year	3,036,540.21	2,665,391.36
22. Net profit for the year	3,003,677.28	3,036,540.21

CONSOLIDATED CASH FLOW STATEMENT
from 1 January 2023 to 31 December 2023

		2023 EUR	2022 EUR
1	Profit or loss before taxes	-306,463.83	91,477.92
2	+/- Depreciation, amortisation, write-downs/ write-ups of investment assets	4,213,536.67	3,686,965.87
3	-/+ Gain/loss on disposal of investment assets	-5,731.75	-12,278.60
4	-/+ Investment income, income from other securities and loans held as financial assets and other interest and similar income/ interest and similar expenses	41,795.53	-82,248.17
5	+/- Other non-cash expenses/income, unless concerning items 7 to 9	-426,485.59	-437,788.58
6	Cash flow from profit or loss	3,516,651.03	3,246,128.44
7	-/+ Increase/decrease in inventories, trade receivables and other assets	-7,033,584.27	355,192.48
8	+/- Increase/decrease in provisions	1,858,965.33	820,724.00
9	+/- Increase/decrease in trade payables and other liabilities	-60,909.28	2,654,845.30
10	Net cash flow from profit or loss before taxes	-1,718,877.19	7,076,890.22
11	- Income taxes paid	-6,301.77	-2,750.00
12	Net cash flow from operating activities	-1,725,178.96	7,074,140.22
13	+ Cash inflow from disposal of assets (excluding financial assets)	12,197.75	10,357.10
14	+ Cash inflow from disposal of financial assets and other financial investments	0.00	684,519.99
15	- Cash used for additions to assets (excluding financial assets)	-5,882,046.11	-5,095,815.61
16	- Cash used for additions to financial assets and other financial investments	-13,500.00	-1,521,335.30
17	+ Cash inflow from investment grants	303,470.21	805,744.85
18	+ Interest received and similar income	95,696.94	176,709.73
19	Net cash flow from investing activities	-5,484,181.21	-4,939,819.24
20	+ Cash inflow from profit distributions	5,310.33	3,898.66
	- Cash used for profit distributions	0.00	0.00
21	+ Cash inflow from taking out finance loans	986,555.16	0.00
22	- Cash used to redeem bonds and finance loans	-100,035.22	-97,082.73
23	- Interest paid and similar expenses	-142,802.80	-118,697.71
24	Net cash flow from financing activities	749,027.47	-211,881.78
25	Cash change in cash and cash equivalents (lines 12+17+24)	-6,460,332.70	1,922,439.20
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	14,109,008.83	12,186,569.63 *)
28	Cash and cash equivalents, end of period	7,648,676.13	14,109,008.83 *)

*) The previous year's figure is not comparable because the item 'Pending transactions' was reclassified.

JOANNEUM RESEARCH Forschungsgesellschaft mbH

Consolidated statement of changes in equity **FY 2022**

	Share capital EUR	Capital reserves EUR	Retained earnings EUR	Net profit for the year EUR	Total group share EUR	Non-controlling interests EUR	Total equity EUR
As at 1 January 2022	3,600,000.00	4,498,599.29	1,235,030.22	2,665,391.36	11,999,020.87	0.00	11,999,020.87
Profit for the year				88,727.92	88,727.92		88,727.92
Changes in reserves							
recognised in profit or loss		-269,700.93	-12,720.00	282,420.93	0.00		0.00
not recognised in profit or loss			-25,000.00		-25,000.00		-25,000.00
As at 31 December 2022	3,600,000.00	4,228,898.36	1,197,310.22	3,036,540.21	12,062,748.79	0.00	12,062,748.79

Consolidated statement of changes in equity **FY 2023**

	Share capital EUR	Capital reserves EUR	Retained earnings EUR	Net profit for the year EUR	Total group share EUR	Non-controlling interests EUR	Total equity EUR
As at 1 January 2023	3,600,000.00	4,228,898.36	1,197,310.22	3,036,540.21	12,062,748.79	0.00	12,062,748.79
Loss for the year				-312,765.60	-312,765.60		-312,765.60
Changes in reserves							
recognised in profit or loss		-267,182.67	-12,720.00	279,902.67	0.00		0.00
not recognised in profit or loss			40,000.00		40,000.00		40,000.00
As at 31 December 2023	3,600,000.00	3,961,715.69	1,224,590.22	3,003,677.28	11,789,983.19	0.00	11,789,983.19

Notes to the consolidated financial statements for the financial year 2023 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 2023 and the company applies the Group's standard accounting and valuation policies.

The consolidated financial statements were prepared in accordance with the provisions of the Austrian Business Code 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 company 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 2023 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: 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	16.7 - 20
	(previous year: 5 - 6)	(16.7 - 20)
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 1,000.00 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 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 are 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 1.82% as at 31 December 2023 (previous year: 1.78%), a salary trend of 4.07% (previous year: 2.97%) 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 1.63% (previous year: 1.56%) 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 3(b) and allocations to provisions are stated in item 5 if they are attributable to staff costs; all others are recognised as other operating expenses in item 7(b) of the income statement.

Liabilities

Liabilities are recognised at the settlement amount 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 24,746,219.83 (previous year: kEUR 23,070.7) in total. In the financial year 2023 capital expenditure amounted to a total of EUR 5,895,546.11 (previous year: kEUR 6,617.2) and amortisation and depreciation amounted to EUR 4,213,536.67 (previous year: kEUR 3,687.0). In the financial year 2023 disposals at historical cost amounted to EUR 1,354,658.10 (previous year: kEUR 3,109.8).

Intangible assets include software and data transmission rights of a carrying amount of EUR 402,068.37 (previous year: kEUR 485.7). Additions of EUR 350,247.74 (previous year: kEUR 388.3) are attributable to the acquisition of licences and various software.

As at the balance sheet date **property, plant and equipment** amounted to EUR 20,791,878.27 (previous year: kEUR 19,046.2). 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 10,506,218.28 (previous year: kEUR 8,824.5) is made up of the net building value of EUR 3,504,936.00 (previous year: kEUR 3,628.4) and structural improvements worth EUR 3,751,092.00 (previous year: kEUR 3,222.5), which means that EUR 7,256,028.00 (previous year: kEUR 6,850.9) are attributable to buildings on land owned by the company and an amount of EUR 3,250,190.28 (previous year: kEUR 1,973.6) is attributable to capital expenditure on buildings owned by others. Additions in a total amount of EUR 5,531,798.37 (previous year: kEUR 4,707.5) 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 1,076,556.55 (previous year: kEUR 2,216.2) mainly concern disposals or, to a small extent, sale of scientific equipment, IT equipment and various office equipment. No write-downs were made.

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

Statement of Investments as at 31 December 2023

	Interest		Equity EUR	Net profit or loss in EUR	Balance sheet date
	EUR	%			
ACIB GmbH	29,500.00	9.00%	4,476,673.93	181,430.91	31 Dec 2022
ALP.Lab GmbH	9,100.00	20.00%	80,617.71	44,811.51	31 Dec 2022
BEST - Bioenergy and Sustainable Technologies GmbH	20,000.00	10.00%	2,089,870.19	1,854,516.26	31 Mar 2023
CBmed GmbH	25,000.00	12.50%	2,649,611.63	2,449,611.63	31 Dec 2022
decide Clinical Software GmbH	42,500.00	10.00%	48,434.10	-376,565.90	31 Dec 2022
DIH SÜD GmbH	9,100.00	26.00%	748,004.94	0.00	31 Dec 2022
EPIG GmbH	8,750.00	25.00%	369,407.93	334,407.93	31 Dec 2022
FH JOANNEUM Gesellschaft mbH	10,828.25	14.90%	4,000,000.00	0.00	30 Jun 2023
Geo5 GmbH	8,000.00	10.00%	186,587.87	106,587.87	31 Dec 2022
Holz.Bau Forschungs GmbH	3,500.00	5.98%	430,497.53	371,997.53	31 Dec 2022
Human.technology Styria GmbH	2,450.00	7.00%	219,656.02	-1,007.81	31 Dec 2022
Know-Center GmbH Research Center for Data-Driven Business & Big Data Analytics	14,540.00	10.00%	1,359,835.79	0.00	31 Dec 2022
Materials Center Leoben Forschung GmbH	51,100.00	17.50%	8,551,258.51	750,106.85	31 Dec 2022
Pacemaker Technologies GmbH	1,050.00	3.00%	25,892.79	-9,107.21	31 Dec 2022
Polymer Competence Center Leoben GmbH	34,000.00	17.00%	5,691,837.93	30,627.58	31 Dec 2022
Rebeat Innovation GmbH	80,000.00	1.70%	n.a.	n.a.	bankruptcy
Research Center Pharmaceutical Engineering GmbH	15,000.00	15.00%	5,624,731.26	769,835.26	30 Jun 2023
Virtual Vehicle Research GmbH	10,640.00	8.40%	7,282,905.69	1,213,701.36	31 Dec 2022

As at the balance sheet date the carrying amount of **investment securities** was EUR 3,264,484.94 (previous year: kEUR 3,264.5).

Write-up or write-down

In the reporting year the company refrained from recording a write-down of financial assets of EUR 378,616.50 (previous year: 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 2,842.44 (previous year: kEUR 3.1) 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 charged in the amount of EUR 10,393,685.35 (previous year: kEUR 2,832.5), under which administrative overheads of EUR 1,820,030.18 (previous year: kEUR 1,970.8) 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 6,946,914.29 (previous year: kEUR 7,127.4) were deducted. The excess amount of EUR 2,727,985.58 (previous year: kEUR 2,431.3) was recognised on the liabilities side.

Advances made on inventories amount to EUR 30,790.28 (previous year: kEUR 40.7).

Receivables and other assets

	Receivables as at 31 Dec 2023 (31 Dec 2022)	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	9,429,921.79 (7,230,217.40)	0.00 (0.00)	0.00 (0.00)	7,036,766.33 (5,063,753.21)	46,600.00 (38,000.00)
Receivables from undertakings with which the company is linked by virtue of participating interests or book-entry securities	159,655.52 (207,043.73)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	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	10,776,348.95 (6,732,574.86)	0.00 (0.00)	0.00 (0.00)	10,651,312.99 (6,155,355.38)	0.00 (0.00)
TOTAL	25,965,926.26 (19,769,835.99)	0.00 (0.00)	0.00 (0.00)	23,288,079.32 (16,819,108.59)	46,000.00 (38,000.00)

Trade receivables amounted to EUR 2,393,155.46 (previous year: kEUR 2,166.5), and itemised allowances in the amount of EUR 961,188.28 (previous year: kEUR 1,028.7) were made for doubtful receivables and deducted from the assets, on the one hand, whereas receivables from subsidies and project grants of EUR 7,036,766.33 (previous year: kEUR 5,063.8), which concern grant approvals from various funding agencies, were consolidated under this item for the first time as at 31 December 2023. Therefore, previous year's figures are not comparable.

Due to the fact that processing, including receipt of subsidies and project grants, takes more than three months, a discount in the amount of EUR 28,200.00 (previous year: kEUR 11.8) was made. The calculatory interest rate was 1.03% (previous year: 0.52%).

Accordingly, **trade receivables** amount to EUR 9,429,921.79 (previous year: kEUR 7,230.2).

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 for Large Enterprises, and receivables from the Tax Office for Large Enterprises from research allowances in the amount of EUR 10,573,949.1 (previous year: kEUR 6,270.6).

Cash and balances at banks

This item in the amount of EUR 7,648,676.13 (previous year: kEUR 14,109.0) is made up of **cash** in the amount of EUR 8,396.59 (previous year: kEUR 7.3) and **bank balances** of EUR 7,640,279.54 (previous year: kEUR 12,616.2). Pending transactions in the amount of EUR 8,961.07 (previous year: kEUR 9.0), which were recognised as other receivables in the previous year, have been recognised under the item 'balances at banks' for the first time in the reporting year, which means that the previous year's figures are not comparable.

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). In the balance sheet as at 31 December 2023 this item has been recognised under item "C" for the first time (previous year: item "D").

PREPAYMENTS AND ACCRUED INCOME

Prepayments and accrued income in the amount of EUR 3,330,076.20 (previous year: kEUR 3,130.0) include payments made in the financial year 2023 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 2,725,937.33 (previous year: kEUR 2,802.2). In the balance sheet as at 31 December 2023 this item is stated under item "D" for the first time (previous year: item "C").

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 and 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) are held by Wirtschaftsagentur Burgenland GmbH.

Taking into account the **loss for the year** of EUR 312,765.60 (previous year: profit for the year of EUR 88,727.92) and the reversal of capital reserves of EUR 267,182.67 (previous year: EUR 269,700.93), of retained earnings of EUR 12,720.00 (previous year: EUR 12,720.00) and the **profit carryforward** of EUR 3,036,540.21 (previous year: EUR 2,665,391.36), the resulting **net profit for the year** is EUR 3,003,677.28 (previous year: EUR 3,036,540.21).

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 2023 a shareholder contribution of EUR 40,000.00 by BABEG – Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. is carried forward to financial 2024 under other reserves.

SPECIAL ITEMS FOR INVESTMENT GRANTS FROM PUBLIC FUNDS

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

	As at 1 Jan 2023	Additions	Consumption according to depreciation	Reversal	Reclassi- fication or corrections	As at 31 Dec 2023
	EUR	EUR	EUR	EUR	EUR	EUR
Property, plant and equipment						
1. Buildings, including buildings on land owned by others	1,154,727.69	33,334.68	-129,383.68	0.00	259.31	1,058,938.00
2. Machinery, scientific equipment and electronic data processing systems	924,353.37	270,135.53	-334,000.32	0.00	-259.31	860,229.27
3. Other plant, furniture and fixtures	12,548.01	0.00	-3,101.59	0.00	0.00	9,446.42
Financial assets						
1. Financial assets	0.00	0.00	0.00	0.00	0.00	0.00
Total	2,091,629.07	303,470.21	-466,485.59	0.00	0.00	1,928,613.69

PROVISIONS

An amount of EUR 0.00 (previous year: kEUR 58.6) of the **provisions for severance pay** was used. In order to meet the cover requirement of EUR 6,656,293.00 (previous year: kEUR 6,012.1), an amount of EUR 644,163.00 (previous year: kEUR 296.4) was allocated to the provision.

An amount of EUR 373,975.41 (previous year: kEUR 346.5) of the **pension provisions** (former managing director) was used for pension payments. In order to meet the actuarial cover requirement of EUR 6,684,680.00 (previous year: kEUR 5,893.6), an amount of EUR 1,165,085.41 (previous year: kEUR 528.3) 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 3,254,200.00 (previous year: kEUR 2,658.4) 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 2,904,478.0 (previous year: kEUR 2,562.9), provisions for potential claims for refund of various

funding parties in the amount of EUR 942,000.00 (previous year: kEUR 1,220.3), the provision for working time credits in the amount of EUR 919,878.00 (previous year: kEUR 812.6) and the provision for anticipated losses or costs of work in progress in the amount of EUR 468,900.33 (previous year: kEUR 654.0).

This item also includes the **provision for the tax audit** by the Tax Office for Large Enterprises 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 2,275,615.15 (previous year: kEUR 1,389.1) includes an export fund credit line of EUR 712,193.77 (previous year: kEUR 712.2), a loan for the acquisition of the property EZ [folio number] 458 GB [Land Register] 60340 in Niklasdorf in the amount of EUR 576,861.42 (previous year: kEUR 675.3) and a loan for the acquisition of a usufruct right in W.E.I.Z IV at Franz-Pichler-Strasse 34, 8160 Weiz, in the amount of EUR 986,555.16 (previous year: kEUR 0.0).

The two investment loans amount to a total of EUR 1,563,416.58 (previous year: kEUR 675.3 only for the loan concerning the Niklasdorf property), with EUR 281,802.25 (previous year: kEUR 137.6) having a remaining term of up to one year, and EUR 1,281,614.33 (previous year: kEUR 567.8) a remaining term of more than one year.

Bank borrowings include liabilities with a remaining term of more than five years in the amount of EUR 0.00 (previous year: kEUR 537.7).

Advances received which cannot be deducted from inventories in the reporting year amounted to EUR 2,727,985.58 (previous year: kEUR 2,431.3) 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 2,614,540.18 (previous year: kEUR 2,672.4), predominantly to Austrian suppliers.

Trade payables include liabilities with a remaining term of more than five years in the amount of EUR 41,152.25 (previous year: kEUR 0.0).

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.

Other liabilities include expenses in the amount of EUR 2,143,545.52 (previous year: kEUR 1,730.4), 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 2024 to 2028
	EUR	EUR
Room rents	971,087.00	4,855,437.00
(previous year)	(1,013,405.00)	(5,067,027.00)
Equipment rents	51,199.00	255,994.00
(previous year)	(51,845.00)	(229,724.00)
Total	1,022,286.00	5,111,431.00
(previous year)	(1,065,250.00)	(5,296,751.00)

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). In the balance sheet as at 31 December 2023 this item has been recognised under item "E" for the first time (previous year: item "F").

ACCRUALS AND DEFERRED INCOME

Accruals and deferred income in the amount of EUR 8,908,454.90 (previous year: kEUR 9,593.2) concern advances made by funding parties, and royalties. In the balance sheet as at 31 December 2023 this item is stated under item "F" for the first time (previous year: item "E").

CONTINGENT LIABILITIES

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

NOTES TO THE INCOME STATEMENT

Revenues generated in the financial year 2023 are classified according to areas of activity and divided into domestic and international revenues:

Amounts in EUR	Financial year 2023	Financial year 2022
Domestic revenues		
Research	8,317,346.91	7,044,842.08
Royalties	490,480.34	1,274,811.77
Congress fees	4,858.15	8,528.57
Other	1,855,768.70	1,828,838.73
Total domestic revenues	10,668,454.10	10,157,021.15
International revenues		
Research	8,864,361.67	9,353,867.86
Royalties	136,511.00	54,002.87
Congress fees	920.00	62,301.67
Other	17,039.99	14,841.67
Total international revenues	9,018,832.66	9,485,014.07

As at 31 December 2023 several items were restated, which means that the previous year's figures are not comparable, namely:

Under item **1 Revenues** the items "Revenues" in the amount of EUR 19,687,286.75 (previous year: kEUR 19,642.0) and "Project-related other income" in the amount of EUR 19,223,485.78 (previous year: kEUR 19,081.4) were consolidated as at 31 December 2023.

Accordingly, item **1 Revenues** shows a total amount of EUR 38,910,772.53 (previous year: kEUR 38,723.4).

Item **3 Other operating income** presents "(a) Income from disposal of non-current assets, except for financial assets" in the amount of EUR 12,197.75 (previous year: kEUR 10.4), "(b) Income from reversal of provisions" in the amount of EUR 764,304.74 (previous year: kEUR 450.1), "(c) Income from reversal of investment grants" in the amount of EUR 466,485.59 (previous year: kEUR 411.3), "(d) Shareholder contribution" in the amount of EUR 13,056,300.00 (previous year: kEUR 9,743.5) and "(e) Other" in the amount of EUR 4,427,609.54 (previous year: kEUR 3,685.9) as at 31 December 2023.

Item **3 Other operating income** therefore amounts to EUR 18,726,897.62 (previous year: kEUR 14,301.1) in the aggregate.

The expenses of EUR 1,311,092.84 (previous year: kEUR 876.1) stated in item 5.(bb) include contributions to Severance Pay and Pension Funds in the amount of EUR 326,563.07 (previous year: kEUR 294.3) and expenses for severance pay in the amount of EUR 984,529.77 (previous year: kEUR 581.8).

OTHER DISCLOSURES

Shares in participating interests

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 2022 show equity in the amount of EUR 369,407.93 (previous year: EUR 348,718.13), which includes a net profit for the year of EUR 334,407.93 (previous year: EUR 313,718.13).

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 2022 show equity in the amount of EUR 748,004.94 (previous year: EUR 502,422.74), which includes a net profit for the year of EUR 0.00 (previous year: EUR 0.00).

The company also holds an investment in ALP.Lab GmbH, which as at the balance sheet date 31 December was 20% of the shares or EUR 9,100.00 (previous year: EUR 9,100.00). The financial statements for the year ended 31 December 2022 show equity in the amount of EUR 80,614.71 (previous year: EUR 25,264.91), which includes a net profit for the year of EUR 35,076.42 (previous year: net loss for the year of EUR 9,735.09).

All other participating interests are below 20%.

Staff

As at the balance sheet date the company had 535 (previous year: 508) employees; taking part-time employees into account on a pro-rata basis, the number of staff was 436.0 (previous year: 421.0). Taking part-time employees into account on a pro-rata basis, the average number of employees was 429.7 (previous year: 418.5).

In application of the provisions of Section 242(4) *UGB* the company has partly refrained from itemising salaries, severance pay or pensions for the management as defined in Section 239(1) *UGB*. As at the balance sheet date of the reporting year expenses for old-age provision in the amount of EUR 1,165,085.41 (previous year: kEUR 528.3) 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 116,953.62 (previous year: kEUR 112.3) 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 2023.

Bodies of the company in the financial year 2023:

SCIENTIFIC ADVISORY BOARD

Gerald SCHÖPFER
Chairman

Gerhard FRIEDRICH
Deputy Chairman

Gernot HANREICH
Deputy Chairman

Hansjörg ALBRECHER

Horst BISCHOF
(until 30 June 2023)

Michaela FRITZ

Günter GETZINGER

Franz HAAS
(from 1 February 2023)

Manfred HUSTY
(until 31 December 2022)

Mario MÜLLER

Michael PATAK

Reinhard PETSCHACHER

Thomas POCK
(from 1 July 2023)

Herbert RITTER

Karin SCHAUPP

Waltraud SCHINKO-NEUROTH

Caroline SCHOBER

Stefan TASCH

Frank UHLIG

SUPERVISORY BOARD

Martin WIEDENBAUER
Chairman

Fritz SPERL
Deputy Chairman

Erlfried TAURER
Deputy Chairman

Klaus HATZL

Werner HAUSER

Michaela KRENN

Rupert PICHLER

Bettina SCHRITTWIESER

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

Management:

Heinz Mayer

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 2,465.10) and SFL technologies Science Tower GmbH (EUR 36,000.00) as well as retention guarantees vis-à-vis Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (EUR 71,113.27) and a bid bond (*Vadium*) vis-à-vis VRT (Vlaamse Radio- en Televisieomroeporganisatie) Aankoopdienst, Belgium (EUR 2,500.00) were recognised.

In the previous year 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) were presented pursuant to Section 199 *UGB*.

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 19,724.00 (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, 14 March 2024

The Management



DI Dr. Heinz Mayer

Consolidated non-current assets movement schedule

JOANNEUM RESEARCH Forschungsgesellschaft mbH

FY 2023

DEVELOPMENT OF NON-CURRENT ASSETS		Cost of acquisition				Accumulated amortisation and depreciation				Carrying amounts	
	1 Jan 2023	Additions	Disposals	Reclassification	31 Dec 2023	1 Jan 2023	Additions	Disposals	31 Dec 2023	31 Dec 2022	31 Dec 2023
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
(I) Intangible assets											
Software, data transmission rights and other rights	3,791,312.76	350,247.74	278,101.55	15,655.50	3,879,114.45	3,305,658.45	449,489.18	278,101.55	3,477,046.08	485,654.31	402,068.37
Total intangible assets	3,791,312.76	350,247.74	278,101.55	15,655.50	3,879,114.45	3,305,658.45	449,489.18	278,101.55	3,477,046.08	485,654.31	402,068.37
(II) Property, plant and equipment											
(1) Land, rights equivalent to land and buildings, including buildings on land owned by others											
(a) Land value	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
(b) Building value	20,041,541.86	1,843,189.58	25,226.58	693,750.79	22,553,255.65	11,217,021.90	853,370.05	23,354.58	12,047,037.37	8,824,519.96	10,506,218.28
Subtotal land and buildings	22,919,335.88	1,843,189.58	25,226.58	693,750.79	25,431,049.67	11,217,021.90	853,370.05	23,354.58	12,047,037.37	11,702,313.98	13,384,012.30
(2) Machinery, scientific equipment and EDP systems	33,563,264.80	2,848,088.74	813,769.18	181,530.30	35,779,114.66	27,911,572.65	2,489,123.06	813,497.18	29,587,198.53	5,651,692.15	6,191,916.13
(3) Other plant, furniture and fixtures	4,148,422.43	360,815.14	97,949.78	4,650.31	4,415,938.10	3,391,001.55	282,663.37	94,347.78	3,579,317.14	757,420.88	836,620.96
(4) Advances made and construction in progress	937,721.33	340,813.90	720.00	-898,486.35	379,328.88	0.00	0.00	0.00	0.00	937,721.33	379,328.88
Offsetting of input tax on advances for non-current assets	-2,899.45	0.00	0.00	2,899.45	0.00	0.00	0.00	0.00	0.00	-2,899.45	0.00
Subtotal advances made and construction in progress	934,821.88	340,813.90	720.00	-895,586.90	379,328.88	0.00	0.00	0.00	0.00	934,821.88	379,328.88
(5) Low-value assets	0.00	138,891.01	138,891.01	0.00	0.00	0.00	138,891.01	138,891.01	0.00	0.00	0.00
Total property, plant and equipment	61,565,844.99	5,531,798.37	1,076,556.55	-15,655.50	66,005,431.31	42,519,596.10	3,764,047.49	1,070,090.55	45,213,553.04	19,046,248.89	20,791,878.27
(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	354,288.25	13,500.00	0.00	0.00	367,788.25	80,000.00	0.00	0.00	80,000.00	274,288.25	287,788.25
(3) Investment securities (book-entry securities)	3,300,335.30	0.00	0.00	0.00	3,300,335.30	35,850.36	0.00	0.00	35,850.36	3,264,484.94	3,264,484.94
Total financial assets	3,654,623.55	13,500.00	0.00	0.00	3,668,123.55	115,850.36	0.00	0.00	115,850.36	3,538,773.19	3,552,273.19
TOTAL NON-CURRENT ASSETS	69,011,781.30	5,895,546.11	1,354,658.10	0.00	73,552,669.31	45,941,104.91	4,213,536.67	1,348,192.10	48,806,449.48	23,070,676.39	24,746,219.83

GROUP MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2023

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz

The Management Report covers the reporting period of the financial year 2023 from 1 January 2023 to 31 December 2023 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 2023 JOANNEUM RESEARCH was organised in seven research units, which represent the main areas of activities.

Research units
DIGITAL – Institute for Digital Technologies
MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies
ROBOTICS – Institute for Robotics and Flexible Production
COREMED – Centre for Regenerative and Precision Medicine
HEALTH – Institute for Biomedical Research and Technologies
LIFE – Institute for Climate, Energy Systems and Society
POLICIES – Institute for Economic, Social and Innovation Research

In financial 2023 JR-AquaConSol GmbH (JR-AquaConSol), being a wholly-owned subsidiary of JOANNEUM RESEARCH, was divided into the areas of services in water resource management, laboratory analytics with a focus on measuring stable isotopes of the water cycle, and planning, construction and maintenance of lysimeter systems.

I.2 Branches

The Group has no branches.

I.3 Course of business

As at 31 December 2023 the orders on hand amounted to approximately EUR 95.9 million. Work on hand amounted to approximately EUR 52.2 million, the value of offers submitted was approximately EUR 35.7 million. The loss for the financial year 2023 amounts to -EUR 32,862.93 (previous year: kEUR 371.1).

In the financial year 2023 the operating result from contract research projects amounted to approximately EUR 20.5 million (previous year: EUR 18.7 million) and funded research projects generated an operating result of approximately EUR 19.7 million (previous year: EUR 19.6 million).

At an international level the Group generated revenues from contract research projects, and funded research projects of approximately EUR 16.9 million in the aggregate in the reporting year (previous year: EUR 16.1 million). An amount of approximately EUR 7.9 million thereof (previous year: EUR 6.8 million) is attributable to projects with the European Union, and contract research projects account for approximately EUR 9.0 million (previous year: EUR 9.5 million). Participation of the Group in calls for proposals by the European Space Agency (ESA) generated revenues of approximately EUR 0.7 million in the aggregate in the financial year 2023.

Under the Horizon Europe programme projects with a funding volume of approximately EUR 8.4 million were awarded to the Group, and in connection with ESA projects an order volume of approximately EUR 0.5 million was solicited.

In the financial year 2023 revenues of approximately EUR 7.6 million (previous year: EUR 7.9 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.

I.3.1 Financial position

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

As at the balance sheet date, 31 December 2023, the Group had a balance sheet total of approximately EUR 74.8 million (previous year: EUR 68.3 million). This is comprised

of non-current assets in the amount of approximately EUR 24.7 million and current assets (inclusive of prepayments and accrued income, and escrow funds) of approximately EUR 50.1 million.

As at 31 December 2023 the shareholders' equity including investment grants amounted to approximately EUR 13.7 million (thereof investment grants of approximately EUR 1.9 million) or 18% of the balance sheet total compared to EUR 14.2 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 7.0 million to approximately EUR 61.1 million (previous year: EUR 54.1 million) and amounted to 82% (previous year: 79%) of the balance sheet total.

In the financial year 2023 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 3.5 million (previous year: EUR 3.2 million). Working capital (current assets minus short-term borrowings) was approximately EUR 6.9 million (previous year: EUR 6.5 million).

No derivative financial instruments were used in the past financial year 2023. The financial instruments recognised in the balance sheet are part of general risk management, which is reflected in the bookkeeping and accounting policies.

1.3.2 Financial performance

In the financial year 2023 the operating result including own work capitalised and other operating income net of shareholder contribution and research allowance amounted to approximately EUR 40.7 million (previous year: EUR 38.5 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 6.9 million were deducted on the face of the balance sheet from services not yet chargeable in the amount of EUR 10.4 million.

The expenses of approximately EUR 58.3 million (previous year: EUR 51.8 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 40.3 million (previous year: EUR 35.7 million), cost of materials and other services purchased of approximately EUR 5.0 million (previous year: EUR 4.5 million), amortisation and depreciation of approximately EUR 4.2 million (previous year: EUR 3.7 million) and other operating expenses of approximately EUR 8.8 million (previous year: EUR 7.9 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 Group's mission.

The Group closed the financial year 2023 with a loss before taxes (formerly profit or loss on ordinary activities) of -EUR 306,463.83. Taking into account income taxes of EUR 6,301.77, reversal of reserves in the amount of EUR 279,902.67 and the profit of EUR 3,036,540.21 carried forward from the previous year, the net profit for the year is EUR 3,003,677.28.

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 2023.

1.3.3 Capital expenditure report

In the financial year 2023 approximately EUR 5.5 million (previous year: EUR 4.7 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)

At a global level, economic performance stabilised, even though the development is sluggish and there are no signs of acceleration yet.

Both in the EU and the Eurozone, economic stagnation still prevails. Compared to the previous quarter no GDP growth (0.0%) was recorded in the EU, and the Eurozone even recorded a slight decline of -0.1% (WIFO [Austrian Institute of Economic Research] Monthly Report 12/2023). However, the upsurge in prices was successfully controlled, as the inflation rate in the Eurozone was driven down to 2.9% in October, and to 2.4% in November.

In Austria, after a decline of -1.1% in the second quarter of 2023, GDP decreased by another -0.5% in the third quarter, with almost all lines of industry being affected by the recession. Economic forecasts of Austrian business enterprises continue to be dominated by slight scepticism. Contrary to pan-European developments, inflation decreases more slowly in Austria, being at 5.4% in November, according to a quick estimate by Statistics Austria.

On a positive note, the constant increase in Austria's research ratio has to be highlighted. The previous year's share of research expenditure in GDP was estimated at 3.22% (Statistics Austria press release: 13 050-078/23 of 21 April 2023), which means that Austria ranks third in the EU-wide ranking. Research and development expenditure amounted to EUR 15.5 billion in the aggregate, EUR 7.8 billion of which were raised by business enterprises (50%), EUR 5.1 billion were government funding (33%), and EUR 2.6 billion (17%) 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 2023	FY 2022	FY 2023	FY 2022
State of Styria	10,527.8	7,700.0		
State of Carinthia	2,064.0	1,579.0		
State of Burgenland	464.5	464.5		
BMK			2,641.1	2,566.9
Total	13,056.3	9,743.5	2,641.1	2,566.9

Risks and prospective developments of the Group

Financial 2024 will continue to remain tense because of inflation, in particular against the background of recent economic developments, which indicate an increasing reluctance on the part of industry and commerce. The landscape of non-university research is challenging *per se*; in addition, cost increases driven by inflation have a major impact on staff and energy costs. Those increases will need to be balanced on the research market. We intend to respond to those challenges by continuing with our targeted strategic focus. The situation on the labour market in the fight for top talent is not expected to ease significantly in 2024 either.

Against the background of these difficult framework conditions the Group will use all efforts to expand its excellent research output and achieve its envisaged goals in the best possible way.

Despite the result for the financial year 2023, which was slightly below expectations, there is a good basis for the financial year 2024. JR-AquaConSol expects stable development for 2024. In the area of water resource management the market is expected to develop favourably, and in the area of laboratory analytics a slight increase in sales is expected. In the area of lysimeters, after the expansion of production space, processing large-scale orders on hand will be a priority.

IT security within the Group

For 2023 a study on this subject (KPMG – Cybersecurity in Austria 2023) showed an increase in cyberattacks by 201% compared to the previous year.

Apart from the technological aspects of a cybercrime incident, be it due to security vulnerabilities or inadequately configured security systems, the human factor still constitutes the easiest way to attack. Often, 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 and cybersecurity awareness must be raised to reduce vulnerability to cyberattacks. The recent increase in use of AI models, which are also increasingly used for attacks, is one of the reasons why continuing awareness training alongside security measures are crucial elements of cyber resilience.

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. A cybersecurity policy must adequately take into account the ever increasing use of cloud services as well.

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 on a regular basis.

III. Report on research and development

III.1 Research units of the parent company

DIGITAL – Institute for Digital Technologies

Activities planned for financial 2024

DIGITAL sees itself as a product innovator and business enabler that supports business entities in developing new services and business models. Bespoke models for cooperation with customers are designed, reaching from concept studies via development projects up to the developing of prototypes or microseries. In this context the Institute takes up the topics of digital transformation, environment and climate, as well as security and defence. In 2024 successful and established products, such as AKUT, the imdas pro product family, disdrometres, tracking receivers, vislvis or VidiCert are being enhanced.

MATERIALS – Institute for Sensors, Photonics and Manufacturing Technologies

Activities planned for financial 2024

MATERIALS has been pursuing a strategy of interdisciplinary collaboration of its research groups for many years to use the strengths of the groups with higher critical mass. 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. Specific topics, which will become important in collaboration projects with the other Institutes in future, include: artificial intelligence, LCA, statistics, sensor fusion, organic and hybrid electronics, PyzoFlex, additive manufacturing, and visual light communication.

ROBOTICS – Institute for Robotics and Flexible Production

Activities planned for financial 2024

In financial 2024 the Institute will be further expanded towards an "Institute for Robotics and Flexible Production" in a second development stage (ROBOTICS 2.0), with the R&D portfolio being further enhanced in the area of production automation to cover all aspects of flexible production. The thread of automated production will constitute the supplementary basis for this thematic advancement and continue to establish new and application-oriented topics of sustainable production automation.

COREMED – Centre for Regenerative and Precision Medicine

Activities planned for financial 2024

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. In particular the area of in-vitro skin models is planned to be strengthened further in 2024. With respect to the pre-clinical in-vivo portfolio the Institute will continue to pursue establishing and characterising skin ageing models in financial 2024. Ageing will also be at the core of the work of the new Healthy Ageing and Sustainability competence group.

HEALTH – Institute for Biomedical Research and Technologies

Activities planned for financial 2024

The Institute's R&D portfolio is guided by the key topics of "dermato-pharmacological research", "neuro-pharmacological research", "metabolic research" and "digital healthcare". Accordingly, its activities in 2024 will be aligned with these key topics. The Institute's business model aims to balance contract research projects, funded research projects and its own research projects, as well as to gain medium to long-term income from licence fees and maintenance as a substantial funding source.

LIFE – Institute for Climate, Energy Systems and Society

Activities planned for financial 2024

LIFE combines research of scientific excellence with a strong focus on topics of practical relevance in the area of climate, energy and social systems. In 2024 the activities in the mobility segment will focus on traffic and infrastructure, public transport technologies and the areas of models, simulation and assessment. In its environment and sustainability segment, LIFE works on solutions contributing to the energy transition, climate-resilient and climate-neutral systems, as well as to recycling and sustainable utilisation of resources.

POLICIES – Institute for Economic, Social and Innovation Research

Activities planned for financial 2024

POLICIES' current research and services portfolio will prove to be very competitive also in 2024. For the next few years intensified activities are planned in the areas of 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.

III.2 JR-AquaConSol GmbH

Activities planned for financial 2024

In financial 2024 research activities will focus on the implementation of new management forms for regional and supraregional water supply companies by means of data- and model-based controlling of utilisation of resources and drinking water distribution and integration thereof in daily operation of several water suppliers under the KI-WAZU funded project. In the area of lysimeter systems, flow and heat transport modelling of the lysimeter cores is intended to improve the overall system. In the area of analytics, in cooperation with the HEALTH Institute, the methods for measuring energy consumption in the human body by means of the DLW method will be further validated and, if feasible, developed up to market maturity under a research project.

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DI Dr. Heinz Mayer

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Leonhardstraße 59 | 8010 Graz

+43 316 876-0 | info@joanneum.at

www.joanneum.at

Responsible for the contents:

DI Dr. Heinz Mayer, Managing Director

Contact and editor:

Mag.^o Gabriele Katz, Head of Corporate Communications

+43 316 876-1205 | gabriele.katz@joanneum.at

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