

JOANNEUM RESEARCH

Annual Report 2014/2015





JOANNEUM RESEARCH Forschungsgesellschaft mbH Leonhardstraße 59 8010 Graz

Phone +43 316 876-0 Fax +43 316 876-1181

prm@joanneum.at www.joanneum.at



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CEO's Message

Within the past financial year of 2014/2015, JOANNEUM RESEARCH has added the prospectively promising institute ROBOTICS — Institute for Robotics and Mechatronics to its research portfolio. The new institute was founded in December 2014 at the Carinthia site at Lakeside Science & Technology Park. ROBOTICS was established with the participation of Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. (BABEG) with 15 % of the share capital of JOANNEUM RESEARCH. A financing contract for basic subsidies was also concluded between BABEG and JOANNEUM RESEARCH in the annual amount of EUR 1,324,000, which substantially increases basic subsidies and ensures a broader basis for funding.

The new partner provides a strong »southern axis« and strengthens synergies with Styrian and Carinthian industry in the area of Smart production/Industry 4.0. JOANNEUM RESEARCH will receive and provide new impetus beyond the research area of ROBOTICS due to its newly established presence at the Klagenfurt site. The existing institutes MATERIALS, DIGITAL, HEALTH, RESOURCES and POLICIES will also profit from this new cooperation.

The research group geophysics and geothermics of the RESOURCES institute was outsourced as a spin-off »Geo5 GmbH« with participation from JOANNEUM RESEARCH in accordance with JOANNEUM RESEARCH's company goal to transition developed technologies towards marketable products. The research group geophysics and geothermics at the Leoben site was exposed to an increasingly strong competition from engineering offices as projects developed more and more in the direction of engineering services. The continuation of activities as a spin-off provides the best economic opportunities for the future.



Prof. Dr. Wolfgang Pribyl, MBA CEO

Competition on the research market remains a challenge for JOANNEUM RESEARCH, and framework conditions for research promotions are demanding. Funding rates will be further reduced nationally based on the new cost guideline from Österreichische Forschungsförderungsgesellschaft mbH (FFG), which will necessitate additional investment of own funds in the financing of research projects.

The close integration of JOANNEUM RESEARCH within a national and international research network, which includes universities, in particular on-site universities (KFU, TUG, MUL, MUG), universities of applied sciences and research institutes also strengthens our competitiveness and represents a substantial added value for the company.

JOANNEUM RESEARCH continually adapts its research portfolio in order to be well-equipped for the future as a responsible innovation partner for local industry. Instead of the three-year company concept, a strategic document with a five-year outlook will prospectively be the basis for annual company planning. With the new company strategy we will actively shape the future of research in Styria, Carinthia and beyond.



Foreword of the Styrian Minister of Science

Challenges for the future

The historic success achieved by the research area Styria is integrally linked to JOANNEUM RESEARCH. Continuous change remains a consistent driving force in the field of research — arguably more than in other areas. Reliability and trust are valued highly in this sensitive area, in the same way as professionalism and expertise are a prerequisite for successful partnerships. An apparent contradiction — and yet JOANNEUM RESEARCH continues to grow, positioning itself as a realisation partner between science and technology transfer, which is an eminently important role for our region.

We can only succeed as a research location — and as JOANNEUM RESEARCH — by competing internationally, which means, first and foremost, energy bundling, optimising synergies, gaining strong partners and investing our (always limited) funds in promising opportunities. The annual report offers a review of an eventful financial year that saw its share of success and challenges. A lot was achieved! These accomplishments would not have been possible without exceptional contributions from our employees at JOANNEUM RESEARCH — thank you for your impressive dedication and active participation.

Investments in research and development are the basis for prosperity and employment. The Province of Styria invests in JOANNEUM RESEARCH, and thus it expresses its trust in the organisation. I am especially delighted that we were able to gain a new partner in the Province of Carinthia for joint future expansions. Expanding beyond our state's boarders clearly indicates the strengthening of the southern axis and the joint expansion of prospective opportunities.



Christopher DrexlerStyrian Minister for Science and Research,
Health and Healthcare Management







JOANNEUM RESEARCH Present Worldwide

17. – 19.08.2014 and 21. – 23.08.2014	22.10.2014
European Forum Alpbach Health Talks and Technology Talks, Alpbach, AT	KIRAS Specialist Conference, Vienna, AT
	30.10.2014
24. – 29.08.2014	AAL Forum Styria, Graz, AT
International Mass Spectrometry Conference, Gene-	
va, CH	26.10. – 1.11.2014
	IEEE International Conference on Image Processing,
11. – 16.09.2014	Paris, FR
IBC – International Broadcasting Convention and	
Exhibition 2014, Amsterdam, NL	04.11. – 06.11.2014
	Annual Meeting of the American Association of Phar-
16. – 19.09.2014	maceutical Scientists 2014, San Diego, USA
i – Know International Conference on Knowledge	
Technologies and Data – driven Business, Graz, AT	06. – 08.11.2014
	MUTEC 2014, Leipzig, DE
17.09.2014	, 1 0,
Presentation Austrian Climate Report, Vienna, AT	10.11.2014
	INFRAplusGEO, Vienna, AT
22. – 25.09.2014	in in places, ricina, ri
International Training Conference for Crime Analysts,	11. – 13.11.2014
Bad Waltersdorf, AT	BrauBeviale 2014, Nuremberg, DE
	Draubeviale 2014, Nutritibery, DE
23. – 26.09.2014	02. – 05.12.2014
InnoTrans 2014, Berlin, DE	
	MOBIQUITOUS 2014, London, GB
24.09. – 26.09.2014	40 04 04 0045
ARCHIVISTICA 2014, Magdeburg, DE	19. – 21.01.2015
	10th International Colloquium Fuels, Stuttgart, DE
01. – 02.10.2014	
Austrian Water Management Conference 2014,	10. – 12.02.2015
Villach, AT	SPIE Photonics West 2015, San Francisco, USA
07. – 09.10.2014	18. – 22.02.2015
INTERGEO 2014, Berlin, DE	ATTD 2015, Paris, FR
,	
16. – 17.10.2014	11. – 13.03.2015
6th Congress of the Alps Adria Acoustic Association,	European Robotics Forum, Vienna, AT
Graz, AT	



JOANNEUM RESEARCH Present Worldwide

18.03.2015

Science and Applications of Laser Technology Conference and Brokerage Event, Burg Mauterndorf, AT

13. - 16.04.2015

NAB Exhibition, Las Vegas, USA

13. - 17.04.2015

Hannover Messe International, Hanover, DE

14. - 16.04.2015

ConhIT 2014, Berlin, DE

28. – 29.04.2015

Research Market Day 2015, Vienna, AT

05. - 08.05.2014

CONTROL 2015, Stuttgart, DE

06. - 07.05.2015

Civil Protection Forum, Brussels, BE

07. - 08.05.2015

AUSTRIAN ROBOTICS WORKSHOP, Klagenfurt, AT

12. - 14.05.2015

European Climate Change Adaptation Conference, Copenhagen, DK

02. - 05.06.2015

3rd IFToMM Symposium on Mechanism Design for Robotics MEDER 2015, Aalborg, DK

10.06.2015

AAL - Summit 2015, Vienna, AT

11. - 15.06.2015

VDI Specialist Conference: Industrial Robotics 2015, Baden – Baden, DE

15. – 19.06.2015

International Paris Air Show, Paris, FR

22. - 25.06.2015

LASER World of PHOTONICS, Munich, DE

23.06. - 24.06.2015

6th Dermatological Product Development Workshop, London, UK

Facts

- 6 Research units
- MATERIALS Institute for Surface Technologies and Photonics
- ▶ HEALTH Institute for Biomedicine and Health Sciences
- ▶ DIGITAL Institute for Information and Communication Technologies
- RESOURCES Institute for Water, Energy and Sustainability
- POLICIES Institute for Economic and Innovation Research
- ▶ ROBOTICS Institute for Robotics and Mechatronics

- Approx. 450 employees
- EUR 31.6 m operating performance
- EUR 11.5 m industry share
- EUR 39.9 m expenses
- EURO 8.2 m basic subsidies
- 79 % self-financing level



Highlights

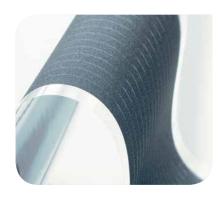


4.5 million euro from H2020-EU grants for the research site Weiz JOANNEUM RESEARCH and the NanoTecCenter Weiz brought approximately 4.5 million euro into Styria within the context of H2020 tenders, specifically for printing technology projects in the micro and nanometre range and smart surfaces from the tenders »NMP 4-2014: High definition printing of multifunctional materials« and »NMP 5-2014: Industrial scale production of nanomaterials for printing applications« for the research framework programme Horizon 2020 of the European Commission.



FLASHED – Development of bendable sensor foil for tablets

MATERIALS has developed the transparent sensor surface FlexSense for tablets
in cooperation with Microsoft Research in Cambridge and the Media Interaction
Lab of the University of Applied Sciences Upper Austria, Campus Hagenberg
within the context of the European project »FLASHED« (flexible large area sensors
for highly enhanced displays) and presented it at the international conference
UIST 2014. The foil provides intuitive interaction between man and computer
while exploring the third dimension. JOANNEUM RESEARCH received approximately three million euro for this research.



New production technology for photovoltaic foils

An entirely new technology for manufacturing flexible photovoltaic foils has been developed within the context of the research project »print.PV«. MATERIALS is substantially involved in the project, which receives almost 3.2 million euro in support from the Climate and Energy Fund. Highly-productive, cost-saving solutions from the printing industry in combination with the already patented photovoltaics foil are the basis for the research project »crystalsol GmbH«. These solutions provide significant product advantages.



Product innovation LED booster

Specialists from the research group light and optotechnologies from MATERIALS developed the innovative product »LED Booster« in cooperation with the University of Leoben for the light-guidance expert EcoCan GmbH. LED technology paired with intelligent energy controls optimises light quality, which is automatically adapted to requirements with sensors; the light is distributed at the desired location in a targeted and time-controlled manner. Whether with high or low-tech measures there is still much untapped potential in energy efficient lighting technology. The product »LED Booster« won the Fast Forward Award 2015.



MATERIALS





»We are able to further expand our scientific and technological competence and offer our customers decisive added value in joint R&D projects due to the pleasantly high success rate in essential national and international promotional programmes such as Research Studio Austria, Produktion der Zukunft or Horizon2020.«

Dr. Paul Hartmann, Director MATERIALSInstitute for
Surface Technologies and Photonics



Highlights



HEALTH receives the HTI prize from the Province of Styria

The HEALTH team led by the diabetes expert Dr. Martin Hajnsek received the research prize »HTI: Human-Technology-Interface« at Messe Congress Graz from the Province of Styria in the category »Economic applications« for the EU project »SPIDIMAN«. The prize was presented by the Styrian Minister of Science Christopher Drexler. The winning project has been up and running since 2012 and pursues the goal of simplifying everyday life for diabetes patients by developing a »single port device« for blood sugar monitoring.



Requirement analysis for health care 2025

In May of 2015, the Styrian Minister for Health Christopher Drexler submitted a first draft of the care requirements plan until 2025. The requirement analysis was performed by the competence group health sciences under the leadership of Dr. Wolfgang Habacher. The analysis is based on demographic, social-economic and health-related data as well as structural information and utilisation inquiries for nursing care and support services in Styria.



Partner session at the European Forum Alpbach 2014

The HEALTH institute invited relevant stakeholders to discuss the topic »How much evidence-based medicine can the health system cope with? — Example Austria« in the Eichensaal of the Böglerhof in Alpbach. In summary: Much has been accomplished in Austria in regard to »evidence-based medicine« (EbM) compared to other countries with at least 20 years of experience in EbM; yet, much remains to be done. Conclusion: Properly performed and applied EbM can lead to the advancement of knowledge in many areas.



CBmed – Centre for Biomarker Research in Medicine

In January of 2015, the new K1 competence centre for systematic biomarker research »CBmed — Centre for Biomarker Research in Medicine« in which JOAN-NEUM RESEARCH holds shares started its operations. The centre is located within the Medical University of Graz. HEALTH institute director Prof. Dr. Thomas Pieber CEO of CBmed. The primary goal of the discipline-transcending research is the advancement of personalised medicine.



HEALTH





»This year, HEALTH was able to once again strengthen its excellent position in the tension field between basic medical research and industrial application. The expertise and high level of dedication and motivation of our employees are the reasons why we were so successful this year.«

Prof. Dr. Thomas Pieber and Dr. Frank Sinner, Directors

HEALTHInstitute for Biomedicine and Health Sciences



Highlights



AeroChannel – error-free airplane Internet usage

As it presently stands, airplane passengers usually cannot use the Internet during flight. However, satellite connections will soon provide Internet access, provided that the extremely complex conditions for wireless transmission can be met. A software tool is being developed within the project »AeroChannel« that takes all these parameters into account and indicates how and where the signal quality is best on the airplane. JOANNEUM RESEARCH is realising the project »Aero-Channel« as commissioned by the European Space Agency ESA.



Fast Forward Award 2014

JOANNEUM RESEARCH, DIGITAL, won the Fast Forward Award 2014 in the category »Institutions of applied R&D« with the project »ReDeform«. The award ceremony for top Styrian innovations took place on 11 September 2014 at the Graz Civic Centre. »ReDeform« was promoted within the context of Future Lab with funds from the funding agreement with the Federal Ministry for Transport, Innovation and Technology (bmvit). »ReDeform« is a software for optimal planning of radiotherapeutic treatment for cancer patients.



Space technology:

Exhibition highlight during the special exhibition »Fascination space flight«

DIGITAL not only presented numerous research and development works for specific ESA missions within the context of the Graz Frühjahrsmesse 2015, but also the ESA measurement bus, which is equipped with state-of-the-art electronics and six antenna positions used for planning 3D flyover simulations over the earth's surface and operating a remote-controlled Mars Rover as used by the ESA Mission ExoMars on Mars.



Acoustic innovations: Trends in industry and everyday life

DIGITAL held a workshop on »Acoustic innovations« within the context of the technology talks of the European Forum Alpbach 2014. Expert speakers talked about the necessity for interdisciplinary technological developments in acoustics from the design of distinctive sounds and noise reduction to the optimisation of products and production processes. These interactions and the resulting challenges were discussed in relation to the areas of mobility, industrial application, humanity and culture.



DIGITAL





»DIGITAL was able to further expand its excellent position. The industry-oriented K-projects are running at top speed and utilisation endeavours are significantly contributing to the institute's success.

Involvement in projects at the European level (EU) and especially the increased demand in space related research (ESA) document the international position and are a direct result of the competence and motivation of each individual. «

Dr. Heinz Mayer, Director DIGITAL

Institute for Information and Communication Technologies



Highlights



Contract for hydro-geological measurements at the Semmering

Hydro-geological measurements and sampling of selected water samples have already been performed since 1989 within the context of the project Semmering Base Tunnel. ÖBB plans an EU-wide tender for all hydro-geological measurements and sampling above ground EU-wide until 2026. RESOURCES, together with its partners BGG Consult and forstinger+stadlmann zt GmbH, have applied for this project as Hydro Group Semmering. The group's application was evaluated as the best one and also won the bid within the context of the hearing.



Analysis of micro substances in Austria's ground and drinking water

A comprehensive study for the identification of relevant anthropogenic micro substances in Austria's ground water was performed, and a suitable monitoring system for these substances in drinking water was developed within the research project promoted by the Friedrich Flick Promotional Foundation. Additionally, examinations for modelling the distribution behaviour of micro substances in ground water were also performed. Data from experimental examinations was combined with results from numeric model calculations.



First environmental balance of the world-wide electric car fleet

The current worldwide developments relating to the broad market introduction of electrically operated vehicles was the focal point at this year's International Electric Vehicle Symposium EVS28, which took place in Korea at the beginning of May. More than 800 experts from 45 countries gathered for this event. Sustainability expert Dr. Gerfried Jungmeier presented the first environmental balance in the life cycle of the 700,000 electric vehicles that are in operation worldwide within the context of the international symposium.



Once upon a time or »The history of how to store energy«

The project »STORY STORage in distribution sYstems« deals with the storage of renewable energy. Small storage systems are tested to determine how and how much energy from photovoltaic systems can be stored. Three questions emerge: Is storage technically possible? What are the resulting costs? What is the environmental effect? RESOURCES performs both the demonstration and environmental evaluation within this EU project.



RESOURCES





»Despite difficult economic developments for RESOUR-CES in the economic year 2014/2015, we were able to achieve great success especially on account of the participation in international research programmes in the area of environmental system evaluations. The establishment of the competence centre ground water modelling is becoming more and more significant in the further development of unique selling propositions. Relevant projects were developed in cooperation with the industry in the scientific monitoring of large-scale infrastructure measures (Semmering Base Tunnel).«

Dr. Johann Fank and Sebastian Berka, Directors

RESOURCES

Institute for Water, Energy and Sustainability



Highlights



Research and Technology Report 2014

The Austrian Research and Technology Report 2014 was commissioned by the Federal Ministry for Science, Research and Economics as well as Transport, Innovation and Technology. The POLICIES institute at JOANNEUM RESEARCH, the Austrian Institute of Technology, the Economic Research Institute and the Centre for European Economic Research prepared the report in which specific national and international technological-political focal points are outlined.



Forum POLICIES

JOANNEUM RESEARCH held a discussion event within the context of »Forum POLICIES« on 22 June 2015 in the auditorium of the Alte Universität Graz. More than 100 interested persons attended the event »How much evidence can politics cope with?« upon invitation from JOANNEUM RESEARCH's CEO, Prof. Dr. Wolfgang Pribyl and Wolfgang Polt, director of POLICIES. Hypo investigative commission chairperson honorary Prof. Dr. Irmgard Griss gave an exceptional presentation, and Styrian Minister of Science Christopher Drexler introduced this exciting event.



Study »Economic factor church«

Commissioned by the financial chamber directors of the (arch)diocese and the Superiors Conference, the POLICIES institute and the Institute for Higher Studies (IHS) published a comprehensive and detailed study on »Church as an economic factor«, which was presented on 25 June 2015 at the Austrian Academy of Sciences (OeAW) within the context of a press conference. A team from the research group regional policy, risk and resource economics performed the scientific study.



CriPA – Crime Predictive Analytics

Can crime be predicted? The project »CriPA« shows to what extent crime can be predicted and which methods are suitable for prediction. Reliable prognoses and risk evaluations for spatial and temporal criminality developments are an indispensable instrument for the strategic fight against crime. Suitable predictive analytical methods are being explored within the KIRAS project »CriPA«, which is promoted by the Federal Ministry for Transport, Innovation and Technology. The analysis system was conceived in close cooperation with the Institute for the Sociology of Law and Criminology.



POLICIES





»POLICIES has asserted itself quite successfully in a very competitive national and international environment, recording one of its best financial years thus far. We see this as a confirmation of our work, which is closely oriented towards the requirements of our clients and cooperation partners and the high quality, reliability and objectivity of our research results.«

Wolfgang Polt, Director
POLICIES
Institute for
Economic and Innovation Research



Highlights



The founding of ROBOTICS – Institute for Robotics and Mechatronics

The contract between the province of Styria and the new partner, Kärntner Betriebsansiedelungs- und Beteiligungsgesellschaft m.b.H. (BABEG) was signed on 16 December 2014 in Klagenfurt. The framework conditions of the new owner structure envisaged the founding of a sixth institute at the Klagenfurt site. In the beginning of 2015, ROBOTICS, the Institute for Robotics and Mechatronics, moved into the premises at the Klagenfurt site at Lakeside Science and Technology Park. Prof. Dr. Michael Hofbaur is the head of the institute. The official inaugural celebration took place in September of 2015.



Robots can learn!

ROBOTICS as the youngest institute at JOANNEUM RESEARCH presented itself with the event »Forum ROBOTICS — Current Trends and Future Perspectives« on 21 January 2015. Keynote speaker at the forum, Prof. Jadran Lenarčič, Ph. D., director of the renowned Jožef Stefan Institute in Laibach, gave a presentation titled »Robots can learn!«. Industry robots are ubiquitous as essential components of automated production processes, and a vigorous expansion of robotics applications can be currently observed based on innovative information and robot technology.



ROBOTICS presents »Cuma«

The modular robot arm Cuma is the first of its kind worldwide and was presented by ROBOTICS within the context of the »Austrian Robotics Workshop«. This special robot can be structurally adapted depending on the task at hand. Within this context, the institute explores issues relating to the optimal robot structure for an already known task. The goal is to utilise the flexible construction design of Cuma in order to perform cost-effective and quick adaptations to the robot arm when switching to an entirely different task.



Kick-off of the first projects

The project »CollRob — Collaborative Robotics« began at the start of the year; it was conducted together with MATERIALS and DIGITAL. The goal of the project is the examination and development of new methods for collaboratively operating robots. The second project »RedRobCo Regulation of redundant robots« pertains to the construction and regulation of so-called redundant and thus versatile mobile robots. Both projects are promoted and implemented within the context of the funding agreement with the Federal Ministry for Transport, Innovation and Technology.



ROBOTICS





»JOANNEUM RESEARCH
has provided an impetus for
the professional expansion
of this promising research
area and its positioning as
a research partner in Southern Austria based on the
founding and establishment
of the institute at Lakeside
Park in Klagenfurt. The new
institute's focus on innovative robotics will act as an
important bridge between
university robotics research
and industrial applications.«

Dr. Michael Hofbaur, Director ROBOTICSInstitute for
Robotics and Mechatronics



Audit Certificate

Report on the financial statements

We have examined the attached financial statements for JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz for the business year from 1 July 2014 to 30 June 2015 and the company's accounting. The financial statements include the balance sheet as at 30 June 2015, the income statement for the financial year ending on 30 June 2015 and the notes to the financial statement.

Management's responsibility for the financial statements and for accounting

The legal representative of the company is responsible for the company's accounting as well as for the preparation of the financial statements that portray the asset, financial and profit situation of the company as accurately as possible while complying with the Austrian legal entrepreneurial stipulations. Areas of responsibility include: shaping, implementation and maintenance of an internal control system insofar as this is relevant for the preparation of the financial statements, a portrayal of the asset, financial and profit situation of the enterprise that is as accurate as possible and free of intentional or unintentional errors, the selection and application of suitable accounting and valuation methods and appropriate assessments while taking the given framework conditions into account.

Responsibility of the auditor of the accounts and description of mode and scope of the statutory audit

It is our responsibility to submit an annual audit opinion based on our examinations. We performed the audit while taking the legal stipulations in Austria and the principles of proper annual audits into account. These principles require us to comply with professional standards and to plan and perform the audit in such a manner so that a sufficiently certain assessment can be made whether the financial statements are free of essential misrepresentations.

The audit includes the performance of audit actions in order to obtain audit verifications in regard to amounts and other information in the financial statements. The selection of specific audit actions is decided by the auditor while taking his risk assessment for the occurrence of essential misrepresentations due to intentional or unintentional errors into account. The final auditor accounts for the internal control system when performing the risk assessment insofar as this is relevant for the preparation of the financial statements and the portrayal of the asset, financial and profit situation of the company that is as accurate as possible so that he can determine suitable audit actions while taking the framework conditions into account, but not in order to give an audit opinion about the effectivity of the company's internal controls. Furthermore, the audit includes an evaluation of the appropriateness of the applied balancing and assessment methods and the essential estimations performed by the legal representative as well as a total evaluation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a sufficiently sound basis for our audit option.



Audit Certificate

Audit opinion

The audit has not resulted in any objections. Based on the insights gained from the audit, our assessment has determined that the financial statements comply with the legal stipulations and supplemental regulations of the company contract and portray the company's asset and financial position on 30 June 2015 and the company's profit situation for the business year from 1 July 2014 to 30 June 2015 as accurately as possible in compliance with the Austrian principles for proper accounting.

Opinion on the management report

The management report is to be examined based on legal stipulations to determine whether it is in agreement with the financial statements and whether other information in the management report is a misrepresentation of the company's situation. The audit certificate must also include a statement indicating whether the management report is in agreement with the financial statements. According to our assessment, the management report is in agreement with the financial statements.

HÖTZL UND PARTNER GMBH

Wirtschaftsprüfer und Steuerberater

Graz, 21.09.2015



Balance Sheet

ssets	30.06.2015 €	Previous year €
A. Fixed assets		
. Intangible assets		
1. Rights and licenses	169,824.00	174,470.00
I. Tangible assets	·	,
Land and buildings, fixtures in buildings belonging to third parties	9,381,979.66	7,991,572.56
2. Technical equipment	2,585,060.01	2,678,878.01
3. Operating and office equipment	912,128.00	760,352.00
Advance payments and assets under construction	402,694.52	1,648,253.70
-	13,281,862.19	13,079,056.27
II. Financial assets		
Shares in affiliated companies	25,000.00	48,567.67
2. Equity interests	169,789.25	136,789.25
Securities and book-entry securities held as fixed assets	1,345,275.00	1,345,275.00
	1,540,064.25	1,530,631.92
	14,991,750.44	14,784,158.19
3. Current assets		 - -
. Inventories		
Raw materials, consumables and supplies	9,796.60	10,846.00
2. Work in progress	10,113,804.71	12,122,355.13
3. Advance payments	16,361.46	7,799.28
	10,139,962.77	12,141,000.41
I. Receivables and other assets		
1. Accounts receivable	1,215,463.67	1,444,257.26
Receivables from affiliated companies	3,341.81	23,699.79
of which trade receivables	3,341.81	23,699.79
Receivables from companies in which a participation interest is held	139,720.51	269,149.80
of which trade receivables	139,720.51	269,149.80
4. Receivables from subsidies and project grants	5,559,151.92	4,065,262.11
5. Other receivables and assets	3,609,269.69	3,556,269.34
	10,526,947.60	9,358,638.30
II. Securities and shareholdings		
1. Other securities and share holdings	1,981,000.00	1,981,000.00
V. Cash in hand and at bank	6,554,974.15	3,616,846.00
	29,202,884.52	27,097,484.71
C. Trust assets	1,089,929.03	3,445,210.62
D. Prepaid expenses and deferred charges	397,572.78	390,254.87



Balance Sheet

obilities	20.00.0045	Voviolen G
abilities	30.06.2015 €	Vorjahr €
A. Equity		
I. Share capital	3,420,000.00	3,230,000.00
II. Capital reserves		
1. Appropriated	3,957,261.61	0.00
2. Unappropriated	362,637.44	362,637.44
	4,319,899.05	362,637.44
III. Revenue reserves		
1. Statutory reserves	159,571.25	159,571.25
2. Other reserves (free reserves)	785,410.22	800,830.22
	944,981.47	960,401.47
IV. Net profit	94,628.00	340,817.29
of which brought forward	340,817.29	256,533.11
	8,779,508.52	4,893,856.20
B. Investment grants	1,972,418.33	856,740.94
C. Provisions		
1. Provisions for severance payments	4,011,900.00	3,967,100.00
2. Provisions for pensions	4,190,910.00	3,930,200.00
3. Other provisions	5,562,600.00	5,322,600.00
	13,765,410.00	13,219,900.00
D. Liabilities		
1. Due to banks	826,181.14	954,501.85
2. Payments received on account	12,473,440.35	15,250,293.13
3. Accounts payable	1,267,465.51	1,415,176.81
4. Due to affiliated companies	51,598.10	72,176.07
of which other	51,598.10	72,176.07
5. Due to companies in which a participation interest is held	0.00	82,940.55
of which other	0.00	82,940.55
6. Other liabilities	3,560,151.94	3,637,412.18
of which: tax-related	487,278.81	390,983.37
of which: related to social security	1,377,630.48	1,131,273.76
	18,178,837.04	21,412,500.59
E. Trust assets	1,089,929.03	3,445,210.62
F. Deferred income	1,896,033.85	1,888,900.04
Total liabilities	45,682,136.77	45,717,108.39
Contingent liabilities	234,017.29	72,625.46



Income Statement

Inc	ome Statement	2014/2015 €	2013/2014 €
1.	Sales revenues	15,347,259.02	15,373,403.67
2.	Changes in inventories of goods and work in progress	-2,008,550.42	-1,779,786.55
3.	Other own work capitalised	134,454.91	8,450.59
4.	Other project-related income	14,248,368.29	12,986,414.25
5.	Basic subsidies	8,175,385.06	7,539,764.99
6.	Other operating income		
	a. Income from the disposal of fixed assets	34,269.10	11,407.38
	b. Income from the release of provisions	250,999.55	141,333.18
	c. Other	3,631,768.62	3,716,187.13
		3,917,037.27	3,868,927.69
7.	Cost of materials and other purchased services		
	a. Cost of materials	1,160,595.11	1,577,401.68
	b. Cost of purchased services	1,845,423.90	1,835,533.53
		3,006,019.01	3,412,935.21
8.	Personnel expenses		
	a. Salaries	20,292,080.61	19,117,477.46
	b. Expenses for severance payments	782,506.32	603,526.78
	c. Pension costs	507,469.14	221,866.40
	d. Cost of statutory social security contributions and payroll-taxes and mandatory contributions	5,902,003.85	5,475,851.76
	e. Other social cost	119,966.37	92,282.65
		27,604,026.29	25,511,005.05
9.	Depreciation and amortization		
	a. of tangible assets	2,422,473.30	2,623,616.51



Income Statement

Income Statement	2014/2015 €	2013/2014 €
10. Other operating expenses		
a. Taxes unless on income	65,837.25	57,393.15
b. Other	6,809,036.63	6,092,027.11
	6,874,873.88	6,149,420.26
11. Subtotal of lines 1 to 10 (operating result)	-93,438.35	300,197.61
12. Income from other securities	59,863.52	62,053.90
13. Other interest and similar income	62,216.92	43,504.72
 Income from the disposal and addition to financial assets and securities classified as current assets 	23,566.67	0.00
15. Expenses incurred on financial assets	317,833.70	294,329.79
of which depreciation	0.00	6.00
of which expenses resulting from affiliated companies	223,567.67	203,600.00
16. Interest and similar expenses	23,661.74	37,625.25
17. Subtotals of lines 12 to 16 (financial result)	-195,848.33	- 226,396.42
18. Result from ordinary activities	-289,286.68	73,801.19
19. Taxes on income	2,061.00	501.00
20. Net profit/loss for the year	-291,347.68	73,300.19
21. Release of revenue reserves		
a. Other reserves (free reserves)	29,738.39	0.00
22. Release of revenue reserves		
a. Other reserves (free reserves)	15,420.00	15,420.00
23. Allocation to revenue reserves		
a. Statutory reserves	0.00	4,436.01
24. Net profit/loss for the year	-246,189.29	84,284.18
25. Retained income brought forward	340,817.29	256,533.11
25. Net profit	94,628.00	340,817.29



Accounting and valuation methods

General principles

The financial statements for JOANNEUM RESEARCH Forschungsgesellschaft mbH were prepared according to the regulations of the Austrian Commercial Code in the valid version while taking the principles of proper accounting and the general norm into account so as to portray the company's asset, financial and profit situation as accurately as possible.

The principle of completeness was observed while preparing the financial statements. The principle of individual valuation was taken into account for the evaluation of individual assets and liabilities, and a continuation of the company was assumed. The principle of caution was observed by only indicating the profits that were realised by the reporting date. All detected risks and pending losses were taken into account. Comparative values are stated in parentheses unless clearly identified.

Fixed assets

Intangible fixed assets

Intangible fixed assets are evaluated according to acquisition costs plus additional acquisition costs minus the applied discount and the scheduled deprecations calculated according to the straight-line depreciation method. A time frame of 3 to 5 years (20% - 33%) is assumed for the useful life.

Tangible assets

Tangible assets are evaluated according to acquisition costs plus additional acquisition costs minus the applied discount and the scheduled deprecations. Public subsidies for the fixed assets are identified as investment grants from public funds on the liabilities side. The consumption of investment grants is performed analogous to the scheduled depreciation and amortization.

Scheduled depreciation and amortization is calculated linearly based on the following useful life and depreciation rates.

Tangible assets	Useful life in years	Depreciation
Buildings and buildings on third-party land	10 – 33	3% – 10%
Machines, scientific equipment and electronic data processing equipment	3 – 10	10% – 33%
Other equipment, operating and office equipment	4 – 10	10% – 25%

Full-year depreciation is applied for attributions in the first half of the financial year; half-year depreciation is applied for attributions in the second half.

Low-value economic goods within the meaning of § 13 of

the Income Tax Act 1988 – individual acquisition value up to EUR 400.00 – are fully written off in the attribution year and are identified in the development of fixed assets as addition and disposal.



Financial assets

Shares in affiliated companies and interest are evaluated according to acquisition costs, possibly reduced in order to take depreciations for value decline into account.

Securities held as fixed assets are applied as acquisition costs or the possibly lower attributed value on the reporting date.

No unscheduled depreciations were performed in the reporting year for financial assets; there were no write-ups.

Current assets

Inventories

The evaluation of **consumables** is performed with acquisition costs while taking the lowest-value principle into account. **Work in progress** from commissioned research is determined based on the prepared operational settlement. The recording of project costs is performed according to cost centre and individual cost verifications. The evaluation is performed individually for manufacturing or acquisition costs within the meaning of § 203 of the Austrian Commercial Code. The manufacturing costs include, besides the costs assignable according to costs-by-cause, proportionate, activatable overhead costs for manufacturing as well as parts of social costs within the meaning of § 203 (3), next to last sentence of the Austrian Commercial Code. Interest expenses and research risk are not accounted.

Discounts from work in progress or provisions are formed for expected loss-incurring orders or for costs that are still expected from already invoiced services. Balance precautions in the form of a provision are performed for potential warranty obligations in connection with commissioned research. Proportionate overhead management costs are activated for orders whose execution extends beyond twelve months.

Receivables and other assets

Receivables and other assets are evaluated at nominal value, provided that the lower attributable value is not applied for detectable individual risks in the specific case. Fixed-rate corrections in the amount of 2% of the net claim sum are formed as a precaution for general credit risks.

Provisions

The **severance payment provision** is calculated according to financial-mathematical principles on the basis of the actuarial interest rate of 3.5 % (previous year: 3.5%) and a pension age of 65 according to the partial value procedure. The collective-contractual increases and contractual basic pay increases are taken into account with the inclusion of a 3% (previous year: 3%) salary increase. A fluctuation discount for employees for whom the severance payment regulation applies is included in the calculation in the amount of 6% (previous year: 6%) based on previous years.

The **pension provision** is classified as a liability according to the amount of the insurance-mathematical coverage requirement. Guideline tables according to Pagler & Pagler are used as a basis while taking the actuarial interest rate of 3.5% (previous year: 3.5%) into account. Other provisions account for all recognisable risks and

Other provisions account for all recognisable risks and liabilities that have not yet been determined according to the amount. Other provisions than those that are legally designated are not formed.

Liabilities

Liabilities are assessed with the repayment amount while taking the cautionary principle into account.

Currency conversion

Receivables and liabilities are evaluated with the average exchange rate at the time of occurrence or according to the strict lowest or highest-value principle on the reporting date.



Notes on the Balance Sheet

Assets

Fixed assets

Reference is made to the fixed assets movement schedule (annex to the notes) in regard to the development of individual items of the fixed assets and the itemisation of the annual depreciation. All fixed assets are valued on the reporting date at EUR 14,991,750.44 (previous year: kEUR 14,784.2). Investments in the financial year 2014/2015 amount to a total of EUR 2,743, 409.22 (previous year: kEUR 2,323.4) contrasted with on-going deprecations in the amount of EUR 2,422,473.30 (previous year: kEUR 2,623.6). Disposals for historic acquisition costs amounted to EUR 2,681,046.10 (previous year: kEUR 1,059.8) in the financial year 2014/2015.

Intangible assets include software and data transmission rights with a book value of EUR 169,824.42 (previous year: kEUR 174.5). Additions in the amount of EUR 114,824.42 (previous year: kEUR 136.0) are allotted for the purchase of licenses and various software.

Tangible assets amount to EUR 13,281,862.19 (previous year: kEUR 13,079.1) on the reporting date. The basic value amounts to EUR 2,656,523.66 (previous year: kEUR 2,651.3). EUR 3,068,961.00 (previous year: kEUR 3,177.2) of the building value for the developed buildings and buildings on third-party land in the amount of EUR 6,725,456.00 (previous year: kEUR 5,340.3) are purely allotted to the building value and EUR 1,343,005.00 (previous year: kEUR 1,170.7) to structural changes; thus EUR 4,411,966.00 (previous year: kEUR 4,347.9) are allotted for buildings on own land and EUR 2,313,490.00 (previous year: kEUR 992.4) for investments in third-party buildings. Additions in the total amount of EUR 2,595,584.80 (previous year: kEUR 2,187.4) first and foremost pertain to the provision of state-of-the-art scientific equipment for the company's research activity and the further expansion of the technological EDP infrastructure. Disposals for historic acquisition costs in the amount of EUR 2,353,090.05 (previous year: kEUR 871.0) essentially pertain to the discarding or, to a lesser extent, the sale of scientific devices,

equipment for electronic data processing and various office equipment. Partial value depreciations have not been performed.

Shares in affiliated companies in the amount of EUR 25,000.00 (previous year: kEUR 48.6) pertain to the shares in NanoTecCenter Weiz Forschungsgesellschaft mbH in Weiz. On the one hand, the disposals result from the liquidation of Waterpool Competence Network GmbH and, on the other hand, from the change in owner structure of BioNanoNet Forschungsgesellschaft mbH (transition to association BioNanoNet).

In alphabetical order, the item **equity interests**, totalling EUR 169,789.25 (previous year: kEUR 136.8) includes

- the interest in ACIB GmbH, Graz
- the interest in BIOENERGY 2020+ GmbH, Graz
- the interest in FH JOANNEUM Gesellschaft mbH, Graz
- the interest in Holz.Bau Forschungs GmbH, Graz
- the interest in Human.technology Styria GmbH, Graz
- the interest in Kompetenzzentrum Das virtuelle Fahrzeug, Forschungsgesellschaft mbH, Graz
- the interest in Kompetenzzentrum für wissensbasierte Anwendungen und Systeme Forschungs- und Entwicklungs GmbH, Graz
- the interest in Materials Center Leoben Forschung GmbH, Leoben
- the interest in Polymer Competence Center Leoben GmbH, Leoben
- the interest in Research Center Pharmaceutical Engineering GmbH, Graz
- the interest in CBmed GmbH, Graz
- the interest in Geo5 GmbH, Leoben

Securities held as fixed assets are valued at EUR 1,345,275.00 (previous year: kEUR 1,345.3) on the recording date. No unscheduled depreciations were performed in the reporting year for financial assets. Depreciations of other fixed assets result entirely from normal depreciations.



Current assets

Inventories

Consumables in the amount of EUR 9,796.60 (previous year: kEUR 10.8) were predominantly activated for paper, colour ribbons, PC network adaptors, spare parts for laser printers and various incidental materials.

The item contract research work in progress comprises work in progress and services not yet invoiced totalling EUR 10,113,804.71 (previous year: kEUR 12,122.4), of which administrative overheads of EUR 1,955, 033.72 (previous year: kEUR 3,130.4) for orders requiring more than twelve months to complete were capitalised.

Prepayments for inventories amount to EUR 19,403.46 (previous year: kEUR 7.8).

Liabilities and other assets

Individual value adjustments in the amount of EUR 134,801.98 (previous year: kEUR 222.0) were formed and actively deducted for prospective debtor losses of accounts receivable. The item receivables from affiliated companies pertains to accounts receivable.

Receivables from subsidies and project grants relate to assurances from various promotional bodies. Discounting in the amount of EUR 35,300.00 (previous year: kEUR 32.0) was performed since the execution and thus the receipt of payment extends beyond a time period of three months. The actuarial interest rate amounts to 2% (previous year: 2%). Basic subsidies via BABEG – Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H.

Receivables & other assets	Receivables as at 30.06.2015 (30.06.2014) EUR	Term to maturity more than 1 year EUR	Secured by bills of exchange	Capitalised accru- als as per § 225 (3) of the Austrian Commercial Code EUR	Valuation allo- wance for bad debts EUR
Accounts receivable	1,215,463.67	0.00	0.00	0.00	18,300.00
	(1,444,257.26)	(0.00)	(0.00)	(0.00)	(25,400.00)
Receivables from affiliated companies	3,341.81	0.00	0.00	0.00	0.00
	(23,699.79)	(0.00)	(0.00)	(0.00)	(0.00)
Receivables from companies in which an interest is held	139,720.51	80,565.12	0.0	0.0	0.00
	(269,149.80)	(0.00)	(0.00)	(0.00)	(0.00)
Receivables from subsidies and project grants	5,559,151.92	0.00	0.00	5,559,151.92	0.00
	(4,065,262.11)	(0.00)	(0.00)	(4,065,262.11)	(0.00)
Other receivables and assets	3,609,269.69	0.00	0.00	3,531,004.47	0.00
	(3,556,269.34)	(0.00)	(0.00)	(3,556,269.34)	(0.00)
Total	10,526,947.60	80,565.12	0.00	9,090,156.39	18,300.00
	(9,358,638.30)	(0.00)	(0.00)	(7,621,531.45)	(25,400.00)



are also identified under this item for the time period 01.01.2015 to 30.06.2015.

Other receivables and assets essentially include receivables from the insurance company acquired by insurance expenses, receivables from Finanzamt Graz-Stadt, various accrued and deferred interest, remuneration and allowances.

Securities held as current assets

Securities classified as current assets totalling EUR 1,981,000.00 (previous year: kEUR 1,981.0) relate to bank bonds.

No write-ups

Voting rights were utilised in the financial year in order to maintain the lower valuation and omit write-ups despite the fact that the reasons for an earlier performed non-scheduled depreciation are no longer valid.

The write-ups cease on account of a careful assessment. The omitted write-up to securities held as current assets is EUR 19,000.00 (previous year: kEUR 19.0).

Cash in hand and at bank

The item in the amount of EUR 6,554,974.15 (previous year: kEUR 3,616.8) consists of cash in hand of EUR 8,881.17 (previous year: kEUR 7.2) as well as bank deposits of EUR 6,546,092.98 (previous year: kEUR 3,609.6).

Prepaid expenses and deferred charges

Prepaid expenses and deferred charges in the amount of EUR 397,572.78 (previous year: kEUR 390.3) contain payments performed in the financial year 2014/2015 that are to be charged to the following year and essentially pertain to the advanced payments for maintenance expenses, various subscriptions, membership fees, insurances, travel costs and congress fees.

Trust assets

Trust assets include cash at bank for projects with Österreichische Forschungsförderungsgesellschaft mbH or the European Commission in which JOANNEUM RESEARCH Forschungsförderungs mbH acts as a coordinator and manages the payments for project partners as a trustee (see trust liabilities).

Liabilities

Equity

The company's **share capital** amounts to EUR 3,420,000.00 after the takeover of the TNO share (Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek) by BABEG - Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. and the increase by EUR 190,000.00 whereby 85% of the share capital, i.e. EUR 2,907,000.00 are allotted to the Province of Styria and 15%, i.e. EUR 513,000.00 of the share capital to BABEG.

A net profit of EUR 94,628.00 results while taking the loss for the year in the amount of EUR 246,189.29 and the profit brought forward in the amount of EUR 340,817.29 into account.

Appropriated capital reserve

The associates agreed that appropriated capital reserves in the extent of the usage determined in the participation and cooperation contract from 18.12.2014 are dissolved. This does not result in a disadvantage for creditors since the measure does not change the equity, but only constitutes a shift from appropriated capital reserves to the balance result. Profit distribution for a net profit is excluded according to § 6 of the company contract.

Special item

investment grants from public funds Investment grants from public funds have developed as follows in the reporting year:



Provisions

Of the **provisions for severance payments**, EUR 200,581.00 (previous year: kEUR 254.0) was utilised for severance payments and EUR 0.00 (previous year: kEUR 22.1) was dissolved. EUR 245,381.00 (previous year: kEUR 416.0) was added in order to reach the coverage requirement of EUR 4,011,900.00 (previous year kEUR 3,967.1). Of the **pension provisions** (of former CEOs), EUR 246,759.14 (previous year: kEUR 243.7) was utilised for pension payments. EUR 507,469.14 (previous year: kEUR 221.9) was added in order to reach the mathematical insurance coverage requirement of EUR 4,190,910.00 (previous year kEUR 3,930.2).

Other provisions include the provision for not yet consumed vacation days as essential items in the amount of EUR 2,499,800.00, (previous year: kEUR 2,340.6), provisions for contingent repayment demands by various grant providers in the amount of EUR 696,400.00 (previous year: kEUR 798,8), the provisions for time credits in the amount of EUR 868,300.00 (previous year: kEUR 811.7) as well as the provision for expected losses or costs from currently executed services in the amount of EUR 753,200.00 (previous year: kEUR 525.7).

Of the liabilities toward credit institutes, EUR 113,987.37 (previous year: kEUR 242.3) pertain to instalment credits for thermal restorations and EUR 712,193.77 (previous year: kEUR 712.2) to an export fund framework credit.

Investment grants from	as at 01.07.2014	Additions	Usage in line with deprecia- tion	Releases	Reallocation or corrections	as at 30.06.2015
public funds	EUR	EUR	EUR	EUR	EUR	EUR
Tangible assets						
Buildings including buildings on third-party land	436,245.00	1,325,166.57	-150,279.77	0.00	0.00	1,611,131.80
2. Machines, scientific equipment and EPD equipment	152,263.00	22,473.48	-55,831.00	0.00	0.00	118,905.48
Other equipment, operating and office equipment	225,382.94	35,044.94	-43,046.83	0.00	0.00	217,381.05
1. Shares in affiliated companies	42,850.00	0.00	0.00	-1,850.00	0.00	25,000.00
Total	856,740.94	1,382,684.99	-249,157.60	-17,850.00	0.00	1,972,418.33



	Liabilities as at		Term to maturity		Secured by collateral	llateral	Accrued liabi-
Liabilities	30.6.2015 (30.6.2014) EUR	up to 1 year EUR	between 1 and 5 years EUR	5+ years EUR	1+ year EUR	Type of collateral	of the Austrian Commercial Code / EUR
Due to banks	826,181.14 (954,501.85)	826,181.14 (840,541.17)	0.00 (113,960.68)	0.00)	0.00 (954,501.85)	Hypothek (Hypothek)	0.00
Payments on account	12,473,440.35 (15,250,293.13)	12,473,440.35 (15,250,293.13)	0.00	0.00	00.00	' <u>(</u>	0.00
Accounts payable	1,267,465.51 (1,415,176.81)	1,267,465.51 (1,415,176.81)	0.00	0.00	00.00	' ①	0.00
Due to affiliated com- panies	51,598.10 (72,176.07)	51,598.10 (72,176.07)	0.00	0.00	00.00	' ①	0.00
Due to companies in which an interest is held	0.00 (82,940.55)	0.00 (82,940.55)	0.00	0.00	00.00	· ①	0.00
Other liabilities	3,560,151.94 (3,637,412.18)	2,172,674.94 (2,138,475.18)	0.00 (111,460.00)	1,387,477.00	00:00	· ①	2,131,054.94 (2,138,475.18)
of which: tax-related	487,278.81 (390,983.37)	487,278.81 (390,398.37)	0.00	00.0)	00:00	- T	487,278.81 (390,983.37)
of which: related to social security	1,377,630.48	1,377,630.48	0.00	0.00	0.00	- I	1,377,630.48 (1,131,273.76)
Total	18,178,837.04 (21,412,500.59)	16,791,360.04 (19,799,602.91)	0.00 (225,420.68)	1,387,477.00	0.00 (954,501.85)	1 1	2,131,054.94 (2,138,475.18)



For the next financial year in EUR	For the next 5 financial years in EUR
997,581.00	4,926,803.00
(954,791.00)	(4,773,955.00)
31,020.00	155,100.00
(26,388.00)	(131,940.00)
284,163.00	1,457,172.00
(193,044.00)	(928,275.00)
1,312,764.00	6,539,075.00
(1,174,223.00)	(5,834,170.00)
	997,581.00 (954,791.00) 31,020.00 (26,388.00) 284,163.00 (193,044.00) 1,312,764.00

Prepayments received deductible from the inventories for orders in the financial year amount to EUR 8,412,957.03 (previous year: kEUR 11,085.0).

Accounts payable are valued at EUR 1,267,465.51 (previous year: kEUR 1,415.2) on the reporting date and, for the most part, apply towards domestic suppliers.

Among the item **other liabilities**, the shareholder loan granted by the Province of Styria as of 1.11.2004 is stated in the amount of 1,387,477.00 (previous year: kEUR 1,387.5) and loans from the Promotional Research Fund for Commercial Business in the amount of EUR 41,620.00 (previous year: kEUR 111.5). Furthermore, the item, first and foremost, consists of the settlement for Steiermärkische Gebietskrankenkasse as well as other necessary distinctions.

Other financial obligations

Based on the agreement for the establishment and promotion of NanoTecCenter Weiz Forschungsgesellschaft mbH between JOANNEUM RESEARCH Forschungsgesellschaft mbH and Graz University of Technology from 28.02.2006 and the financing agreement for the time period 01.07.2011 to 30.06.2013 from 21.03.2012 or the side letter for financing from 09.09.2013 for the time period 01.07.2013 to 30.06.2016 between JOANNEUM RESEARCH Forschungsgesellschaft mbH and NanoTecCenter Weiz Forschungsgesellschaft mbH, financial obligations result for the company in the amount of EUR 200,000.00 for the financial year 2014/2015. Obligations beyond this based on the promotional assurance do not exist. The existing obligations resulting from the usage of tangible assets not identified in the balance sheet amount to: (see above).

Accruals and deferrals

Deferred income of EUR 1,896,033.85 (previous year: kEUR 1,888.9) essentially pertains to basic promotions from the Province of Styria.

Trust liabilities

Trust liabilities are based on projects with Österreichische Forschungsförderungsgesellschaft mbH or the European Commission in which JOANNEUM RESEARCH Forschungsgesellschaft mbH acts as a coordinator and manages payments for project partners as a trustee (see trust assets).

Contingent liabilities

(Please refer to: Other disclosures, contingent liabilities).



Notes on the income statement

Sales revenues in the financial year are divided as follows according to activity areas and domestic and foreign sales:

Of the expenses identified under item 8.b) in the amount of EUR 782,506.32 (previous year: kEUR 603.5), EUR 170,969.20 (previous year: kEUR 151.9) pertain to services for the company's employee pension fund and EUR 611,537.12 (previous year: kEUR 451.6) for severance pay.

Domestic sales	2014/2015	EUR	2013/2014	EUR
Research		9,377,246.15	7,46	9,044.81
License revenues		368,900.81	20	9,185.55
Conference fees		9,238.90	1	0,999.31
Other		19,847.63	5	50,530.83
Domestic sales, total		9,775,233.49	7,73	9,760.50
Foreign sales				
Research		5,382,952.90	7,58	3,100.02
License revenues		189,072.63	5	60,422.62
Conference fees		0.00		0.00
Other		0.00		120.53
Foreign sales, total		5,572,025.53	7,63	3,643.17
Total sales revenue		15,347,259.02	15,37	3,403.67
			'	

Other disclosures

Shares in affiliated companies and equity interests

An equity interest of 67.3% or EUR 23,566.67 (previous year: kEUR 23.6) was held in BioNanoNet Forschungsgesellschaft mbH, Graz until 31 October 2014. The financial statements as of 31.10.2014 indicate equity in the amount of EUR 71,658.99 (previous year: kEUR 81.0), which includes a net loss for the year of EUR 9,363.82 (previous year: net profit kEUR 17.6).

An equity interest of 50% or EUR 50,000.00 (previous year: kEUR 50.0) is maintained in NanoTecCenter Weiz Forschungsgesellschaft mbH, Weiz on the reporting date of which half or EUR 25,000.00 has been deposited. The financial statements as of 30.06.2014 indicate equity in the amount of EUR 102,347.34 (previous year: kEUR 152.7), which includes a net profit of EUR 50,306.55

(previous year: net profit kEUR 35.3).

With the closing liquidation balance per 20 November 2014 for WATERPOOL Competence Network GmbH, Graz cancels the dissolution of the previously maintained equity interest of 77.5% or EUR 55,000.00. All other equity interests are below 20%.

Personnel

449 employees (previous year: 431) were employed on the reporting date with an aliquot consideration of 380.8 part-time employees (previous year: 355.9). The average employee status with aliquot consideration of part-time employees amounted to 369.2 persons (previous year: 354.0). An itemisation of wages, severances and pensions for business management according to § 239 (1) of the Austrian Commercial Code is disregarded according to the provisions of § 241 (4) of the Austrian Commercial Code.



Notes/Executive Bodies

The following executive bodies were active in the financial year 2014/2015:

Members of the Scientific Advisory Committee

Prof. Dr. Dr. Gerald **SCHÖPFER** *Chairman*

Prof. Dr. Gerhard **FRIEDRICH**

Deputy Chairman (as of 28.05.2015)

Dr. Freek **HEIDEKAMP**

Deputy Chairman (until 18.12.2014)

Prof. Dr. Horst BISCHOF

Prof. Dr. Günter GETZINGER

Prof. Dr. Manfred **HUSTY** (as of 28.05.2015)

Prof. Dr. Joachim KRENN

Prof. Dr. Markus MÜLLER

Prof. Dr.-Ing. Annette MÜTZE

Michael **PATAK**

Reinhard **PETSCHACHER**

Alexander **RADINGER**, MBA (until 28.05.2015)

Herbert **RITTER** (as of 28.05.2015)

Bruno **SAURER** (as of 28.05.2015)

Dr. Karin SCHAUPP

Dr. Stefan TASCH

Members of the Supervisory Board

Prof.Dr. Wolf **RAUCH** *Chairman*

Brigitte **HASEWEND**

Deputy Chairman

Prof. Dr. Werner HAUSER

Sonja JÖBSTL-FINDEIS

Prof. Dr. Jos **KEURENTJES**

(until 18.12.2014, registered on 20.12.2014)

Dr. Thomas KRAUTZER

Martin LATZKA

Martin **PÖLZL**

Ingolf SCHÄDLER

Appointed to the Supervisory Board by the Works Council:

Ferdinand GOLJA

Chairman of the Works Council

Clemens HABSBURG-LOTHRINGEN, MAS

Helen **HASENAUER**

Gerhard FANKHAUSER

Gerhard PROBST

Board of Management:

Prof. Dr. Wolfgang PRIBYL, MBA



Notes

Contingent liabilities

According to § 199 of the Austrian Commercial Code, payment guaranties are identified in the balance sheet towards the EACI Executive Agency for Competitiveness and Innovation (EUR 55,738.50) as well as rental deposits for oekopark Errichtungs GmbH (EUR 1,569.96), Zentrum für Wissens- und Technologietransfer in der Medizin GmbH (EUR 110,890.00), W. E. I. Z. Immobilien GmbH (EUR 35,554.36), Lakeside Science & Technology Park GmbH (EUR 14,947.47) and a liability relief guarantee towards Voestalpine Schienen GmbH (EUR 15,290.00).

In the previous year, payment guaranties were identified in the balance sheet towards EACI Executive Agency for Competitiveness and Innovation (EUR 55,738.50) according to § 199 of the Austrian Commercial Code as well as rental deposits for oekopark Errichtung GmbH (EUR 1,569.96) and a liability relief guarantee towards Voestalpine Schienen GmbH (EUR 15,290.00).

Other items

According to the goals determined in § 1 Section 3 of the company contract, the company exclusively and directly serves non-profit purposes and is not oriented towards profit gains. According to the decree from the Styrian financial state administration ref. 29/31-10/94 from 16 January 1995, JOANNEUM RESEARCH Forschungsgesell-schaft mbH is one of the beneficiaries according to § 4 (4) I 5 lit. e of the Income Tax Act 1988 in the version of Art I I 4 lit. a of the Tax Reform Act 1993.

Expenses for the auditor for the examination of the financial statements amount to EUR 12,000.00 (previous year: EUR 12,000.00). The auditor again examined the calculation basis for the promotional bonus according to § 108c of the Income Tax Act for the financial year 2014/2015 as a confirmation service, which amounted to EUR 2,000.00 (previous year: EUR 2,000.00). The auditor has not performed other confirmation services, tax consultation services or other services in the current or in the previous financial year.

Graz, 21.9.2015

Prof. Dr. Wolfgang Pribyl, MBAChief Executive Officer

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Fixed Assets Movement Schedule 2014/2015

Development of fixed assets	Acquisition/ Manufactu- ring costs 01.07.2014	Additions	Disposals	Realloca- tions	Acquisition/ Manufactu- ring costs 30.06.2015	Cumulative deprecia- tion	Book value as at 30.06.2015	Book value as at 30.06.2014	Deprecia- tion in the financial year
I) Intangible assets Software, data transfer and other rights	2,272,604.82	114,824.42	269,383.38	24,348.00	2,142,393.86	1,972,569.86	169,824.00	174,470.00	143,107.42
Summe immaterielle Vermögensge- genstände	2,272,604.82	114,824.42	269,383.38	24,348.00	2,142,393.86	1,972,569.86	169,824.00	174,470.00	143,107.42
II) Tangible assets 1) Real property and equivalent rights, including buildings on land owned by third parties									
a) Land value	2,651,317.56	5,206.10	0.00	0.00	2,656,523.66	0.00	2,656,523.66	2,651,317.56	0.00
b) Value of buildings	13,048,677.58	592,422.42	56,691.68	1,303,164.96	14,887,573.28	8,162,117.28	6,725,456.00	5,340,255.00	506,127.38
Total 1) Land	15,699,995.14	597,628.52	56,691.68	1,303,164.96	17,544,096.94	8,162,117.28	9,381,979.66	7,991,572.56	506,127.38
2) Machines, scientific equipment and electronic data processing equipment	22,124,796.42	1,343,994.24	1,759,896.67	2,773.50	21,711,667.49	19,126,607.48	2,585,060.01	2,678,878.01	1,398,669.74
3) Other equipment, operating and office equipment	3,440,165.92	324,524.76	492,996.15	201,204.45	3,472,898.98	2,560,770.98	912,128.00	760,352.00	331,063.21
4) Advance payments and assets under construction	1,896,512.10	287,336.73	00:00	-1,773,490.91	410,357.92	00:00	410,357.92	1,896,512.10	0.00
VAT Advance payment assets under construction	-248,258.40	-1,405.00	0.00	242,000.00	-7,663.40	00:00	-7,663.40	-248,258.40	00:00
5) Low-value assets	0.00	43,505.55	43,505.55	0.00	0.00	0.00	0.00	0.00	43,505.55
Total tangible assets	42,913,211.18	2,595,584.80	2,353,090.05	-24,348.00	43,131,357.93	29,849,495.74	13,281,862.19	13,079,056.27	2,279,365.88
III) Financial assets									
1) Shares in affiliated companies	83,572.67	00:00	58,572.67	0.00	25,000.00	0.00	25,000.00	48,567.67	0.00
2) Equity interests	170,788.25	33,000.00	00:00	0.00	203,788.25	33,999.00	169,789.25	136,789.25	0.00
3) Certificated and uncertificatedsecurities held as fixed assets	1,354,050.00	00:00	0.0	00:00	1,354,050.00	8,775.00	1,345,275.00	1,345,275.00	0.00
Total financial assets	1,608,410.92	33,000.00	58,572.67	0.00	1,582,838.25	42,774.00	1,540,064.25	1,530,631.92	0.00
Total fixed assets	46,794,226.92	2,743,409.22	2,681,046.10	0.00	46,856,590.04	31,864,839.60	14,991,750.44	14,784,158.19	2,422,473.30



The management report for the financial year 2014/2015 from 1 July 2014 until 30 June 2015 is divided into 3 sections: I. Report on the development of business and the economic situation, II. Report on the expected development of business and risks faced by the organisation and III. Report on research and development.

I.Report on the development of business and the economic situation

I.1 Corporate organisation

As of 30 June 2015, JOANNEUM RESEARCH is divided into six institutes that represent the focal points for the company's activities.

Research units	
MATERIALS	Institute for Surface Technologies and Photonics
HEALTH	Institute for Biomedicine and Health Sciences
DIGITAL	Institute for Information and Communication Technologies
RESOURCES	Institute for Water, Energy and Sustainability
POLICIES	Institute for Economic and Innovation Research
ROBOTICS	Institute for Robotics and Mechatronics

I.2 Equity holdings

As of 30 June 2015, JOANNEUM RESEARCH had equity in the following companies:

I.2.1 Shares in affiliated companies

NanoTecCenter Weiz Forschungsgesellschaft mbH, Weiz is identified in the balance sheet as an affiliated company.

Share	
NanoTecCenter Weiz Forschungsgesellschaft mbH	50.0 %

I.2.2 Corporate holdings

Share	
FH JOANNEUM Gesellschaft mbH	14.9%
Geo5 GmbH	10.0%
Holz.Bau Forschungs GmbH*	8.7%
Human.technology Styria GmbH	7.0%

^{*} COMET K-Projekt »focus_solid_timber_solutions«

► 1.2.3 Shares held in the COMET Competence Centres for Excellent Technologies Programme (K1 and K2 centres)

As of 30 June 2015, the company owns shares in the following companies, which are promoted by the competence centre programme COMET of the Federal Ministry for Transport, Innovation and Technology (bmvit) and the Federal Ministry for Science, Research and Economics (bmwfw): (see page 41). In the framework of the corporate shareholdings, turnover with companies in which an interest is held amounted to approx. EUR 0.5 m in the period 1 July 2014 to 30 June 2015 compared to expenses amounting to EUR 0.3 m. Besides a strategic function, the corporate stakeholdings of JOANNEUM RESEARCH also



Share	
ACIB GmbH	8.0%
BIOENERGY 2020+ GmbH	10.0%
CBmed GmbH	12.5%
Kompetenzzentrum – Das virtuelle Fahrzeug, Forschungsgesellschaft mbH	10.0%
Kompetenzzentrum für wissensbasierte Anwendungen und Systeme Forschungs- und Entwicklungs GmbH	10.0%
Materials Center Leoben Forschung GmbH	17.5%
Polymer Competence Center Leoben GmbH	17.0%
Research Center Pharmaceutical Engineering GmbH	15.0%

provide close research cooperation and the realisation of strategic projects and thus contribute to the fulfilment of JOANNEUM RESEARCH's central company tasks (innovation, networking and knowledge transfer task).

I.3 Branches

The company has no branches.

I.4 Development of business

On 30 June 2015, the order status amounted to EUR 56.0 m and has receded by approximately EUR 3.2 compared to the previous year. Work supply amounts to approximately EUR 30.0 m and expanded by approximately EUR 1.6 m compared to the previous year. The offer status is stated at approximately EUR 31.9 m. The net loss of the financial year 2014/2015 amounts to approximately kEUR 246.1 (previous year: annual profit approx. kEUR 84.3). A concomitant self-financing level (operating performance including other operational income/sum of expense) is calculated at 79% (previous year: 81%).

The operating performance for commissioned research is approximately EUR 14.8 m in the financial year 2014/2015 and has roughly remained the same compared to the previous year (approx. EUR 14.7 m). The operating performance in promoted research was increased by approximately EUR 1.2 m to EUR 14.5 m.

In the reporting year, JOANNEUM RESEARCH was able to realise international commissioned research and promoted research projects in the total amount of approximately EUR 9.7 m (previous year: approx. EUR 11.5 m). Thereof, approximately EUR 4.1 m (previous year: approx. EUR 3.9 m) is allotted to projects with the European Union and approximately EUR 5.5 m (previous year: approx. EUR 7.6 m) to commissioned research projects. JOANNEUM RESEARCH's participation in European Union programmes and European Space Agency (ESA) tenders has resulted in revenues in the total amount of approximately EUR 6.1 m in the financial year 2014/2015. Projects with a promotional volume of approximately EUR 0.8 m have been awarded within the context of Horizon 2020.

In the financial year 2014/2015, revenues in the amount of approximately EUR 6.4 m were achieved due to national cooperative research projects within the context of Österreichische Forschungsförderungsgesellschaft mbH (FFG) (previous year: approx. EUR 4.8 m).

Funds in the amount of EUR 4.3 m were granted due to the funding agreement 2013-2014 with the Federal Ministry for Transport, Innovation and Technology (bmvit). JOANNEUM RESEARCH has achieved revenues in the total amount of EUR 1.8 m from the Federal Ministry for Transport, Innovation and Technology (bmvit) in the reporting period. The funding agreement 2015-2018, which envisages promotional funds in the amount of approximately EUR 9.4 m, was signed on 13 July 2015.

The imputed economic share in the financial year 2014/2015 amounts to EUR 11.5 m and thus significantly exceeds the targets of the financing agreement with the Province of Styria.



New owner structure

On 18 December 2014, the Province of Carinthia acquired 15% of the shares in JOANNEUM RESEARCH's share capital via Kärnten Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. (BABEG). This acquisition was realised, on the one hand, via a capital increase in the amount of EUR 190,000 and, on the other hand, via the purchase of 10% of the company shares previously held by TNO.

The purchasing price for the shares via BABEG amounted to EUR 4.5 m of which TNO received EUR 323,000 for its previous shares. The share capital increased from EUR 3.23 m to EUR 3.42 m. Annual basic subsidies in the amount of EUR 1.324 m were also provided to JOANNEUM RESEARCH, primarily for the expansion and development of the Carinthia site.

Expansion of the research infrastructure and establishment of the prospectively strategic research focal point ROBOTICS

For the most part, the spatial concentration of the institute has already been implemented. MATERIALS has moved into a new laboratory building, W.E.I.Z. IV at the Weiz site; HEALTH is located at the Center for Knowledge and Technology Transfer in Medicine (ZWT).

The ROBOTICS institute was founded on 18 December 2014. The institute temporarily moved into the accommodations at Lakeside Science & Technology Park on 1 January 2015. Prospectively, JOANNEUM RESEARCH will move into a new building suitable to the requirements of JOANNEUM RESEARCH at the site Lakeside Science & Technology Park; the accommodations offer a total space of approximately 1,200 m2, including 650 m2 of office space and 550 m2 of laboratory space. Close cooperation with the institutes of the Alpen-Adria-University Klagenfurt is envisaged.

Spin-off »Geo5 GmbH« from the research group geophysics and geothermics of the RESOURCES institute

A detailed analysis of the research group's portfolio has revealed that a continuation of the activities of the research group geophysics and geothermics with a moderately changed orientation in the form of a spin-off offers better economic opportunities. Five employees from the former research group, JOANNEUM RESEARCH and two other associates form the core for the spin-off. The share capital amounts to EUR 80,000 and has been deposited in full; JOANNEUM RESEARCH has a 10% share.

»Geo5 GmbH« was founded on 17 June 2015 and is located in Leoben.

I.4.1 1 Financial position

The company's asset and financing positions developed as follows:

On the reporting date 30 June 2015, JOANNEUM RESEARCH indicates balance sheet assets in the amount of approximately EUR 45.7 m (previous year: approx. EUR 45.7 m), which consist of fixed assets in the amount of EUR 15.0 m, current assets (including accrued income) in the amount of approximately EUR 29.6 m and trust assets in the amount of approximately EUR 1.1 m.

On 30 June 2015, the equity including investment grants amounted to approximately EUR 10.8 m or 24% of the total assets on the balance sheet compared to approximately EUR 5.8 m or 13% of the assets on the balance sheet in the previous year. Third-party capital (including deferred income and trust liabilities) decreased by approximately EUR 2.4 m due to the decline in trust assets and payments received by approximately EUR 2.7 m to approximately EUR 35.0 m and amounts to 76% (previous year 87%) of the total assets on the balance sheet.

The cash flow from the result, as the sum of the generated annual profit and the income and expense items (internal financing potential of the company), amounts to approximately EUR 2.2 m in the financial year 2014/2015. The working capital (current assets minus short-term third-party capital) increased to approximately EUR 5.4 m (previous year: approx. EUR 0.5 m).

No derivate financing instruments were deployed in the past financial year 2014/2015. The financial instruments identified in the balance sheet are the object of the company's general risk management, which is recorded via bookkeeping and balancing methods.



I.4.2 I.4.2 Earnings position

The operating performance including activated own contributions and other operational income without basic subsidies amounts to approximately EUR 31.6 m in the financial year 2014/2015 and has increased compared to the previous year (approx EUR 30.5 m).

70% of the operating performance consist of domestic revenues and 30% of foreign revenues. The portion of operational performance allotted to Styria amounts to 17% and has decreased by 2% compared to the previous year.

The inventory of not-yet-chargeable services has decreased by EUR 2.0 m compared to the previous year and amounts to approximately EUR 10.1 m per 30 June 2015.

The expenses in the amount of approximately EUR 39.9 m (previous year: approx. EUR 37.7 m) consist of personnel expenses including statutory social security contributions, voluntary social contributions and the allocation for pension provisions (of former CEOs) and severance payments in the amount of approximately EUR 27.6 m (previous year approx. EUR 25.5), costs of materials and other purchased services in the amount of EUR 3.0 m (previous year: approx. 3.4 m), depreciations in the amount of approximately EUR 2.4 m (previous year: approx. EUR 2.6 m) as well as other operating expenses in the amount of approximately EUR 6.9 m (previous year: approx. EUR 6.1 m).

The self-financing level of 79% is consistently at a high level in an international comparison. Basic subsidies from the Province of Styria, the Province of Carinthia via Kärntner Betriebsansiedlungs- und Beteiligungsgesell-schaft m.b.H. (BABEG) and the funding agreement with the Federal Ministry for Transport, Innovation and Technology (bmvit) are essential components of company financing and ensure the fulfilment of the company contract.

The company closes the financial year 2014/2015 with a result of EUR -289,286.68 from ordinary activities. The net profit amounts to EUR 94,628.0 while taking income and tax on income in the amount of EUR 2,061.0 from the allocation to statutory revenue reserves of EUR 45,158.39 as well as the profit brought forward from the previous year in the amount of EUR 340,817.29 into account.

Especially significant procedures that might have affected

the asset, financial and income situation in the financial year 2014/2015 did not occur after the completion of the financial year.

I.4.3 Investments

Approximately EUR 2.6 m were invested in the financial year 2014/2015 in the area of tangible assets (scientific devices, equipment for electronic data processing, operating and office equipment, land including buildings) (previous year: approx. EUR 2.2 m).

I.4.4 Human Resources

The number of employees on the reporting date is 449 (156 women and 293 men), +4.18% (+6.12% women and +3.17% men) compared to the previous year, which corresponds to 380.8 full-time equivalents as of 30 June 2015 and thus indicates an increase of approximately 7% compared to the previous year. There were 69 entries (28 women and 41 men) and 55 exits (21 women and 34 men) in the reporting period; thus a fluctuation of approximately 12.25% (women 13.46% and men 11.60%) was recorded for active employees, a lower value compared to the previous year (21.58%).

The average employee age is 40.8 years and has thus slightly increased compared to the previous year (40.5 years).

As of June 30 2015, the proportion of university and university of applied sciences graduates amounts to 67.04%, 28.24% women; the proportion of Matura graduates is 21.38%.

On the reporting date, there were 6 apprentices, 2 females and 4 males in training at JOANNEUM RESEARCH. During the reporting time frame the company had a total of 20 interns (10 women, 10 men), who completed their mandatory internships within the context of their education at universities of applied sciences, universities and during international exchange programmes. Moreover, 16 students (6 women and 10 men) were given the opportunity to write their diploma thesis and dissertations within the context of their service at JOANNEUM RESEARCH in cooperation with the respective universities.



II. Report on the expected development of the business and risks faced by the organisation

Economic and political framework conditions for Research and Development (R&D)

The overall portrayal of the global economic development in 2015 is heterogeneous and reinforced by negative factors such as reserved private consumerism and weak foreign demand.

Individual countries such as India and Japan once again recorded increased growth, but especially Russia and Brazil had to accept a significant contraction in economic performance while economic expansion slowed in China.

The Austrian Institute of Economic Research (WIFO) expects a meagre recovery for the European economic zone, weaker even than for the recently struggling US economy. A slight increase in economic performance in the EU was recorded in the first guarter of 2015 (WIFO monthly report 6/2015), a positive development as this increase is apparently not only based on Germany's good performance, but can also be traced back to increases in several European countries such as Italy, France and Spain. As currently predicted, only a very weak real economic growth of +0.5% is to be expected for Austria, (WIFO press release, 17 June 2015). Thus, the development of the domestic economy remains below expectations as in previous years. Both national factors, such as the tense labour market situation and high taxes as well as international factors, such as stagnating foreign demand are to blame. An improvement in the form of increased economic activity (+1.3%) is only expected for 2016 due to a more optimistic international environment.

In the calendar year 2015, the gross domestic expenditures for research and experimental development (R&D) in Austria will, for the first time, exceed EUR 10 bn according to STATISTICS AUSTRIA; STATISTICS AUSTRIA specifically estimates (press release 11.013-073/15) that the expenditures for research and development will amount to EUR 10.1 bn this year. In relation to the gross domestic product (GDP), this results in a research rate of 3.01% and corroborates the continuous increase of this key figure over the last five years (from 2.74% in 2010 to currently

3.01%). The expenditure ratio from various sectors (companies, public sector, private non-profit sector and foreign) has essentially stabilised after above-average increases in company financing from 2011 to 2013. Almost half of all research expenditures (47.2%) are to be attributed to the corporate sector while the contribution from the public sector is about 10% lower (37.3%). The rest originates from expenditures in the private, non-profit sector as well as foreign research expenditures (total 15.5%).

Financing agreement with the Province of Styria

The current financing agreement with the Province of Styria for the granting of basic promotions in the maximum amount of EUR 7.5 m ends on 31 December 2016.

Financing contract with Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H. (BABEG)

BABEG has committed to the conclusion of a service/ financing contract for basic subsidies to JOANNEUM RESEARCH in the annual amount of EUR 1,324,000 in the participation and cooperation contract between the Province of Styria and Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft m.b.H (BABEG). The funds are primarily intended for the expansion and development of the Carinthia site. The realisation of the goals of the institutional concept ROBOTICS is the essential requirement for basic subsidies.

The financing agreement envisages a term until 31 December 2020.

Funding Agreement with the Federal Ministry for Transport, Innovation and Technology (bmvit)

The funding agreement 2015-2018 was signed on 13 July 2015 between the Federal Ministry for Transport, Innovation and Technology (bmvit) and JOANNEUM RESEARCH. The Federal Ministry for Transport, Innovation and Technology (bmvit) provides funds according to the funding agreement 2015-216 in the total amount of EUR 9.40 m for a total project cost of approximately EUR 11.02 m for seven basic research projects of which six have already been defined. Approximately EUR 1.84 m of



the promotional funds (total project cost EUR 2.16 m) are available for other projects that will be developed at the mid-point of 2016 within the funding agreement 2015-2018. For the first time, projects with a term of up to four years are also envisaged.

The financing agreement with the Province of Styria and the funding agreement with the Federal Ministry for Transport, Innovation and Technology (bmvit) remain an essential financing instrument for JOANNEUM RESEARCH.

Basic financing for JOANNEUM RESEARCH was sustainably and substantially increased based on the new financing contract with Kärntner Betriebsansiedlungs- und Beteiligungsgesellschaft (BABEG), thus placing the company's financing on a broad footing.

Risks faced by the organisation

Further reductions of promotional rates will occur on a national level based on the new cost guideline of Österreichische Forschungsförderungsgesellschaft mbH (FFG), which will require the usage of additional own funds for financing.

Expected development of business

A net loss was recorded in the financial year 2014/2015; it is assumed that the financial year 2015/2016 will be concluded with a balanced to slightly positive result due to the consolidation measures already introduced in 2014/2015.

III. Report on Research and Development

The annual research programme 2015/2016 is the third and last of the company concept period 2013-2016 and specifies the goals for the financial year 2015/2016 portrayed in the company concept.

III.1 Research units

MATERIALS – Institute for Surface Technologies and Phototonics

Activities planned for the financial year 2015/2016:: Important infrastructure projects will be concluded in the financial year 2015/2016. Laser tools with a 3 kW disc laser that also use micro-welding and generative deposit laser welding with dissolution in the hundredth micrometre range will enter into a new phase in the research area of laser production technology. PyzoFlex® technology (printable sensor technology for large-surface and precise recording of temperature and pressure changes for objects and their environment) will take an important step toward its industrial implementation with the activation of an automatic silkscreen system.

The process chain in the research area of roll-to-roll imprinting and mastering, from material development to punch manufacturing with high-resolution laser lithography and the manufacturing of large-surface imprint punches and micro and nanostructured functional foils, is to be complemented with a specially adapted step-and-repeat system in order to increase the existing developmental advantage.

An expansion of the simulation expertise to solve problems in the area of micro-fluids and imprint processes is to be performed, and material and process developments in national and international research projects are to be complemented within the course of the strategic advancement of the research area sensor systems from chemical sensors to bio-sensors and lab-on-a-chip applications.

Hard material coating and functional coating of carbon fibre reinforced plastics (CRP) remain an important topic. Wear protection and low-friction layers for ultra-light compressed-air cylinders and pistons as well as thermal



insulation and infrared reflection layers for CRP materials are to be developed. In addition to the established high and fine-vacuum coating procedure, atmospheric plasma procedures for coating and the functionalisation of surfaces are being explored as a new interesting and cost-efficient technology expansion.

HEALTH – Institute for Biomedicine and Health Sciences

Activities planned for the financial year 2015/2016: In the coming financial year, HEALTH will further develop and strengthen its research services and positioning as a qualitatively secure special provider. The clinical evaluation of dermal open micro-perfusion (dOFM), which is to be used in authorisation studies for topical generics in cooperation with the FDA (US Food and Drug Administration), is to be concluded. Increased external recognition and concomitant increases in project acquisitions in the area of dOFM are expected.

Three essential basic technologies from HEALTH, open micro-perfusion (OFM), GlucoTab and SPIDIMAN (single port glucose sensor) will be further developed into marketable technologies and brought to market maturity; respective utilisation concepts are being developed.

The newly established scientific and methodical expertise in the area of metabolomics should result in new research services based on increased cooperation with universities, in particular the Medical University of Graz and the K1 competence centre CBmed GmbH.

The current research group health sciences is to be expanded further. From a social-political view, the reforms in the area of health sciences remain topically relevant for the present and the future. HEALTH will develop new concepts for basic medical care and implement these in models. The research group health sciences is not only the point of contact for the public sector, but also for private companies.

HEALTH will strategically support the establishment of a realisation concept for a clinical research centre by the Medical University of Graz and a medical-technical cluster in order to strengthen the institute and thus the location.

DIGITAL – Institute for Information and Communication Technologies

Activities planned for the financial year 2015/2016: The research work in the on-going K-projects will also provide a content-related focal point for DIGITAL in the coming financial year. Intelligent, acoustical solutions are explored in the project »ASD — Acoustic Sensing and Design«; new application scenarios with RFID technology are developed in the project »SeCoS — Secure Contactless Sphere«, and new algorithms for machine learning are linked with additional expert knowledge and information from other sectors in the project »Vision+ — Integrating visual information with independent knowledge«.

In the area of remote sensing, the integration of a laser scanner system will be concluded at the beginning of the financial year 2015/2016, and further steps will be achieved in the development of a prototype for a flight platform-based catastrophe management system. A frequency-agile powerful sight radio connection is being developed in the area of communication technologies for real-time sensor data transmission from the aircraft to the ground. The developments of the promising satellite communication technology Q/V band are highly relevant for air traffic and will be pursued in the medium term up to the development of components.

In the next years, DIGITAL will occupy an essential role based on its technological portfolio in the new topical field of robotics and predominantly develop technologies for collaborative robotics relating to the optimisation of safety aspects and cooperation between man and robots via the institutes ROBOTICS and MATERIALS.

Moreover, the topics »Industrial Internet« (Industry 4.0, Smart Production & Services) as well as the development of solutions for social challenges relating to safety aspects in information technology will represent essential focal points. Intensive cooperation with universities, especially with Graz University of Technology is also envisaged in this area.



RESOURCES – Institute for Water, Energy and Sustainability

Activities planned for the financial year 2015/2016: Participation in international programmes will be accelerated in the area of environmental system assessments, and the deployment of developed technologies will be sought on a national level. The unique selling proposition in the area of application-oriented, transient ground water modelling, which is promoted via the project »Competence Centre Ground Water Modelling« within the context of the funding agreement with the Federal Ministry for Transport, Innovation and Technology (bmvit) for a term of four years, is to be expanded further and supplemented with additional components.

A new market segment is to be explored in cooperation with HEALTH in medical research, specifically the field of isotope analytics.

Life cycle sustainability assessment, LCSA, is to be expanded in the area of footprint methods by adding the topical fields water, energy, material and land utilisation; it is to be established as a total system for sustainability assessments for technologies, energy systems, products and services.

POLICIES – Institute for Economic and Innovation Research

Activities planned for the financial year 2015/2016: In the financial year 2015/2016, POLICIES will continue its successful developments, in particular in the areas of "weather driven demand analysis" WEDDA), the exact geographic determination of the origin of foodstuffs (ingredients), predictive analytics (project "CriPA" Crime predictive analytics") and production optimisation (project eRAMP" Excellence in speed and reliability for more than Moore technologies). On the one hand, market penetration is to be increased and, on the other hand, new technologies are to be brought to market maturity.

Moreover, a focal point in the establishment of competences and the development of methods for the social-scientific accompaniment of technology developments and innovation is to be established. In this area, POLICIES is striving for the company-internal interlinking with all other institutes at JOANNEUM RESEARCH. At the same time, POLICIES is accelerating a qualitative further development of its offer in the area of regional economic analysis and will assess and align the existing activity portfolio based on the prospective growth of strategic markets.

ROBOTICS – Institute for Robotics and Mechatronics

Activities planned for the financial year 2015/2016: The content-related and associated personnel structure of the research groups also provides an essential focal point for the institute's activities in the financial year 2015/2016. The structuring takes place, on the one hand, via consistent filling of key positions with key researchers and, on the other hand, via the initiation or execution of accompanying basic research in relevant thematic areas of collaborative and functionally safe robotics.

The site development is to be initiated and deepened through close cooperation with research partners and universities, such as Lakeside Lab GmbH, Alpen-Adria-University Klagenfurt, University of Applied Sciences Carinthia, CTR Carinthian Tech Research AG and industry cooperation. Networking within the relevant interest repre-



Contact Information

sentations, such as Österreichische Gesellschaft für Mess-, Automatisierungs- und Robotertechnik (GMAR), VDI (Association of German Engineers) and EU expert committees (euRobotics) is sought as a measure to reinforce and make the institute visible as an emerging non-university research and innovation partner for robotics and mechatronics.

Apart from the realisation of the R&D infrastructure, in particular the robotics laboratory at the site Lakeside Science & Technology Park, planning for the new ROBOTICS research house at Lakeside Science & Technology Park is also part of the active site development for the coming financial year.

Graz, 21.09.2015

Prof. Dr. Wolfgang Pribyl, MBA
Chief Executive Officer

Chief Executive Officer

Prof. Dr. Wolfgang Pribyl, MBA

Leonhardstrasse 59 8010 Graz

Phone +43 316 876-11 90 Fax +43 316 876 9-11 30

gef@joanneum.at

Corporate services

- AGF Assistant to the CEO
- INR Internal Audit
- IUR Legal
- PEM Personnel
- SFE Safety, Health and Ergonomics
- ZQS Central Quality Assurance

Corporate departments

- FCO Finance and Controlling
- FLA Future Lab
- IFS Infrastructure und Facility Services
- IMM Innovation Management and Marketing
- PRM Public Relations & Marketing
- RJZ Data Centre
- STP Strategic Planning



Contact Information

DIGITAL

Institute for Information and Communication Technologies

- FER Remote Sensing and Geoinformation
- MVA Machine Vision Applications
- WKT Space and Communication Technology
- AVM Audiovisual Media
- IIS Intelligent Information Systems
- IAL Intelligent Acoustical Solutions

Steyrergasse 17 8010 Graz

Phone +43 316 876-5000 Fax +43 316 876-5010 digital@joanneum.at

MATERIALS

Institute for Surface Technologies and Phototonics

- MNS Micro- and Nanostructuring
- LOT Light and Optical Technologies
- LPT Laser Processing
- SEN Sensor Systems
- FOB Functional Surfaces

Franz-Pichler-Strasse 30 8160 Weiz

Phone +43 316 876-3000 Fax +43 316 876-3010 materials@joanneum.at

RESOURCES

Institute for Water, Energy and Sustainability

- WRU Water Resources and Environmental Analytics
- EUB Energy and Bioresources

Elisabethstrasse 18/II 8010 Graz

Phone +43 316 876-60 00 Fax +43 316 876-60 10

resources@joanneum.at

HEALTH

Institute for Biomedicine and Health Sciences

- BTM Biomedical Technologic and Monitoring
- BAM Bioanalytics and Metabolomics
- KGW Core Unit Health Science

Neue Stiftingtalstrasse 2 8010 Graz

Phone +43 316 876-40 00 Fax +43 316 8769-40 00

health@joanneum.at

Vienna Office

Haus der Forschung Sensengasse 1, 1090 Wien

Phone +43 316 876-40 00 Fax +43 316 876 9-40 00 health@joanneum.at

POLICIES

Institute for Economic and Innovation Research

- TIP Technology, Innovation and Policy Consulting
- STA Statistical Applications
- RRR Regional Science, Risk and Resource Economics

Leonhardstrasse 59 8010 Graz

Phone +43 316 876-1488 Fax +43 316 876-1480 policies@joanneum.at

Vienna Office

Haus der Forschung Sensengasse 1 1090 Wien

Phone +43 1 581 75 20 Fax +43 1 581 75 20-28 20 policies@joanneum.at

ROBOTICS

Institute for Robotics and Mechatronics

- COR Collaborative Robotics
- RSY Robot Safety

Lakeside B08a, EG

9020 Klagenfurt am Wörthersee

Phone +43 316 876-2000 Fax +43 316 876-2010 robotics@joanneum.at

JOANNEUM RESEARCH Forschungsgesellschaft mbH **Executive Board, Corporate Staff and Departments**



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Institutes

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Technologies and Photonics Institute for Surface

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Sensor Systems

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and Health Sciences Biomedical Technology and Monitoring

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Institute for Robotics

ROBOTICS

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DIGITAL

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Statistical Applications

Robot Safety

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- Human.technology Styria GmbH
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- Materials Center Leoben Forschung GmbH²

¹ COMET K1 Centre



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JOANNEUM RESEARCH
Forschungsgesellschaft mbH
Leonhardstrasse 59
8010 Graz
Phone +43 316 876-0
Fax +43 316 876-1181
prm@joanneum.at
www.joanneum.at

Responsible for content: Prof. Dr. Wolfgang Pribyl, MBA

CE₀

Contact for editorial queries:

Gabriele Katz

Phone +43 316 876-1205 Fax +43 316 8769-1205 gabriele.katz@joanneum.at

Alexandra Reischl

Phone +43 316 876-1170 Fax +43 316 8769-1170 alexandra.reischl@joanneum.at

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JOANNEUM RESEARCH
Forschungsgesellschaft mbH
Leonhardstraße 59
8010 Graz
Phone +43 316 876-0
Fax +43 316 876-1181
prm@joanneum.at
www.joanneum.at

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