



asceni  on

Life Sciences into Business

**Technology Transfer in academic
settings – Rijeka April 2013**

Dr. Sabina Heim, Senior Technology Manager,
Portfolio&Quality Management, Ascenion GmbH

- Founded in 2001
- Fully owned subsidiary of the Life-Science Foundation for the Promotion of Science and Research
- Focus on life sciences
- Marketing of around **750 technologies** and materials of public research institutions
- Closing an average of **80 agreements** p.a.
- Holding equity in **23 spin-offs**
- Team of 25 specialists with multiyear experience and sector specific expertise
- Offices in Munich, Berlin, Braunschweig, Hamburg, Hannover, Neuherberg



Academia



Ascenion



Industry



- Support of partner institutes in all aspects of *Intellectual Property* and successful commercialisation of inventions
- Transfer technologies to application
- Create revenues that are transferred back to partner institutes and their scientists for research purpose

Academia

- 400 universities, Medical Schools and universities of applied sciences (Fachhochschulen)

4 Public Research Organisations

- Helmholtz-Society (16 institutes); 2,8 bn Euros
- Max-Planck-Society (79 institutes); 1,8 bn Euros
- Fraunhofer-Society (56 institutes in Germany); 1,4 bn Euros
- Leibniz-Association (83 institutes); 1,2 bn Euros

Publicly funded interdisciplinary projects & initiatives

- Program for Medical Genome Research (among many others)

Before year 2000

- only few organized Technology Transfer Offices for IP management of Research Institutions



- university-integrated TTO's
 - small
 - integrated
 - inexperienced

Since year 2000

- more than 20 technology transfer offices were established
- publicly funded
- with regional focus
- in addition to the already existing TTOs (e.g. Max-Planck Innovation für MPG, EMBLEM for EMBL) and to Ascenion having a sectoral approach working for Life Science institutions of Helmholtz- and Leibniz Society



Technology transfer today

- Organisation
 - TTOs integrated in universities
 - external TT Organizations
- Focus
 - regional
 - sectoral

Biomedical Sciences

Biochemistry

Pharmacology

Life Sciences

Medical Engineering

Nutrition

Environmental
Engineering

Bioinformatics



Helmholtz and Leibniz Associations

IP Asset
Management

Medical Schools

IP Asset Management

NGFN-Plus/Transfer

Coordinating
Technology Transfer

Spinnovator

Tool for validation

Industry/Free Inventors

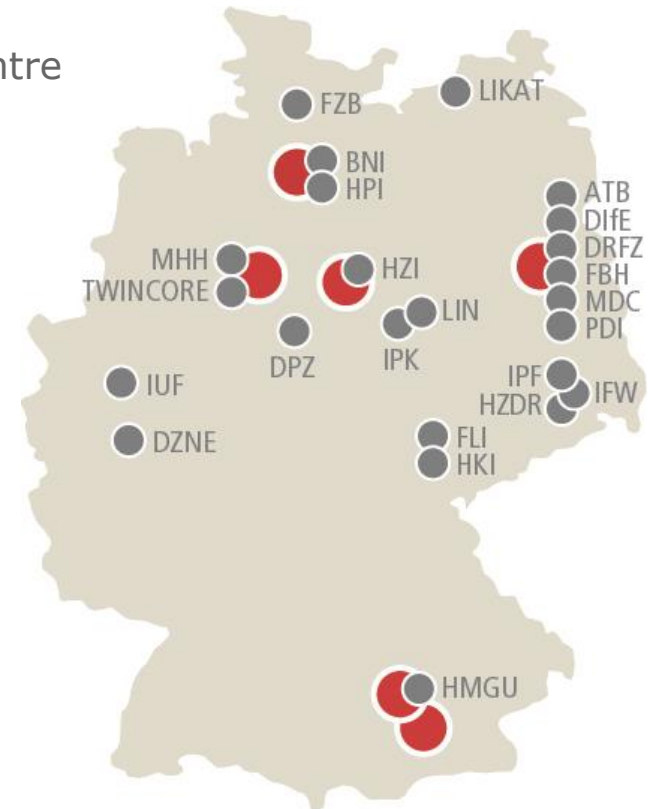
Consulting

Helmholtz Association

- **DZNE** German Center for Neurodegenerative Diseases
- **Helmholtz Zentrum München** – German Research Centre for Environmental Health
- **HZDR** Helmholtz Zentrum Dresden-Rossendorf
- **HZI** Helmholtz Centre for Infection Research
- **MDC** Max Delbrück Centre for Molecular Medicine

Leibniz Association

- **ATB** Leibniz-Institute for Agricultural Engineering
- **BNI** Bernhard Nocht Institute for Tropical Medicine
- **DIfE** German Institute of Human Nutrition
- **DPZ** German Primate Center
- **DRFZ** German Institute for research of rheumatic diseases
- **FBH** Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik
- **FLI** Leibniz Institute for Age Research – Fritz Lipman Institute
- **FZB** Research Center Borstel – Leibniz-Center for Medicine and Biosciences

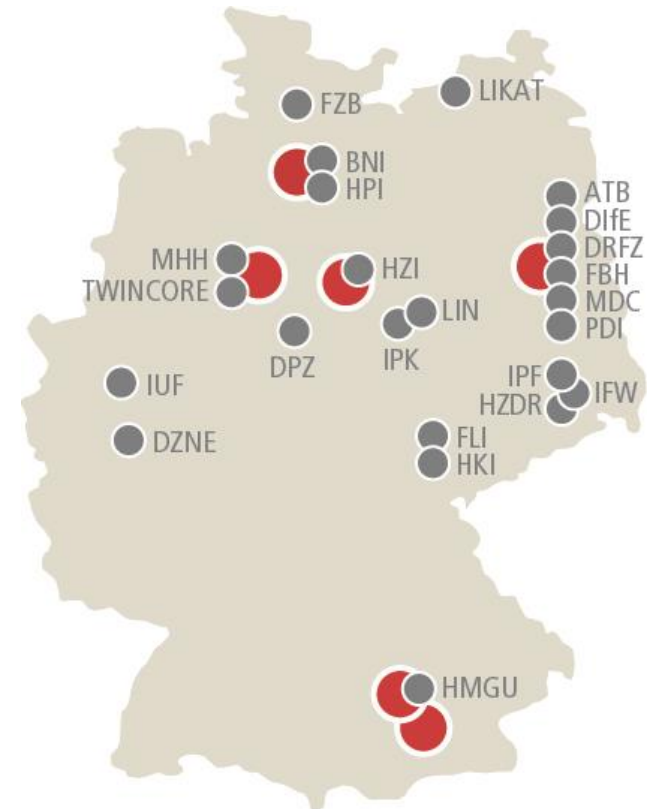


Leibniz Association / continued

- **HKI** Hans-Knoell-Institute - Leibniz Institute for Natural Product Research and Infection Biology
- **HPI** Heinrich Pette Institute for Experimental Virology and Immunology
- **IFW** Leibniz Institute for Solid State and Materials Research Dresden
- **IPK** Leibniz Institute of Plant Genetics and Crop Plant Research
- **IPF** Leibniz-Institut für Polymerforschung Dresden
- **IUF** Environmental Health Research Institute
- **LIKAT** Leibniz Institute for Catalysis
- **LIN** Leibniz Institute for Neurobiology
- **PDI** Paul Drude Institute for Solid State Electronics

Medical Schools / Associated

- **MHH** - Hannover Medical School
- **TWINCORE**





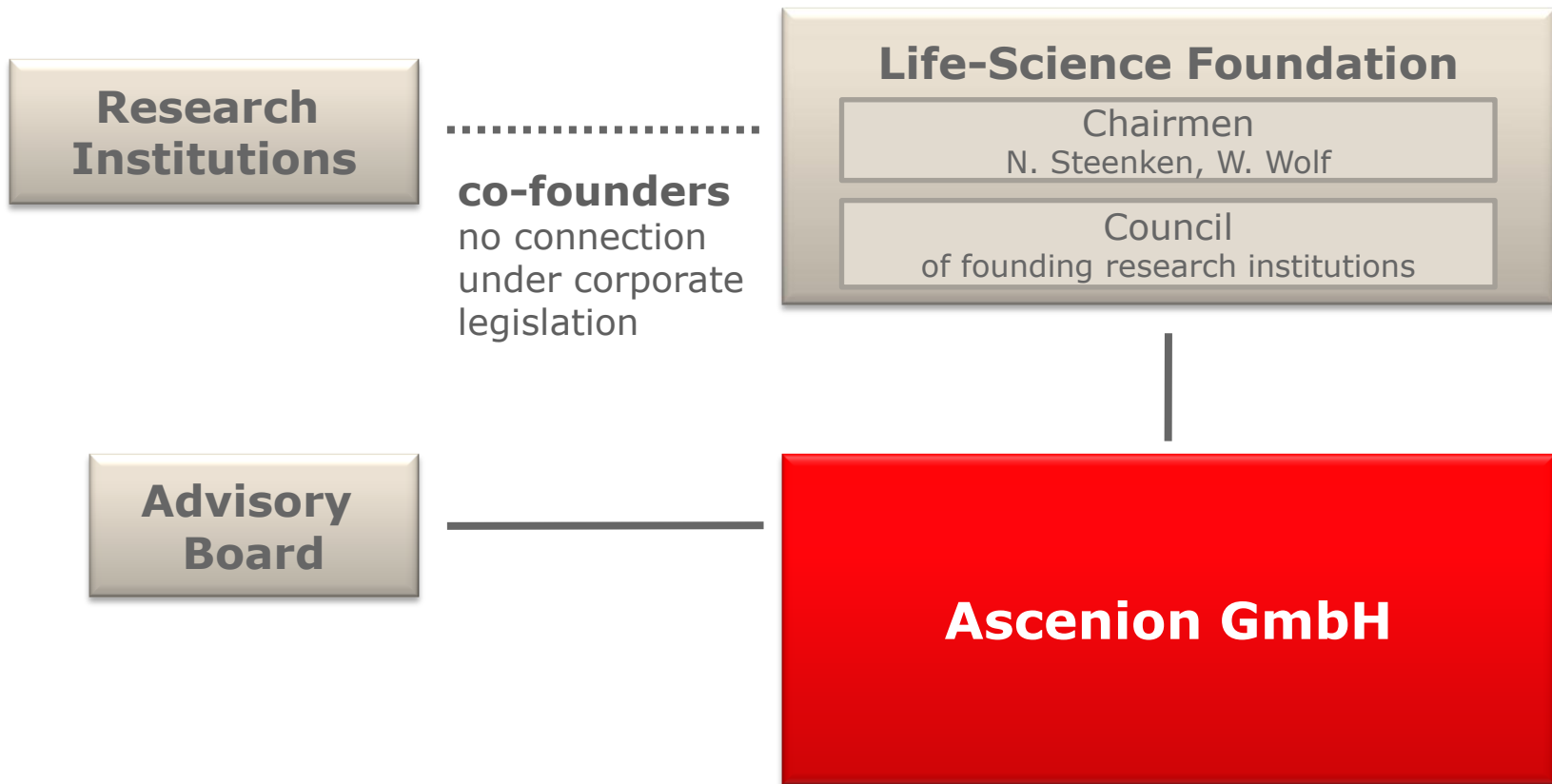
M. Baier (formerly Roche)
T. Jessen (Scienamics)
J. Rothe (Life Science Partners)

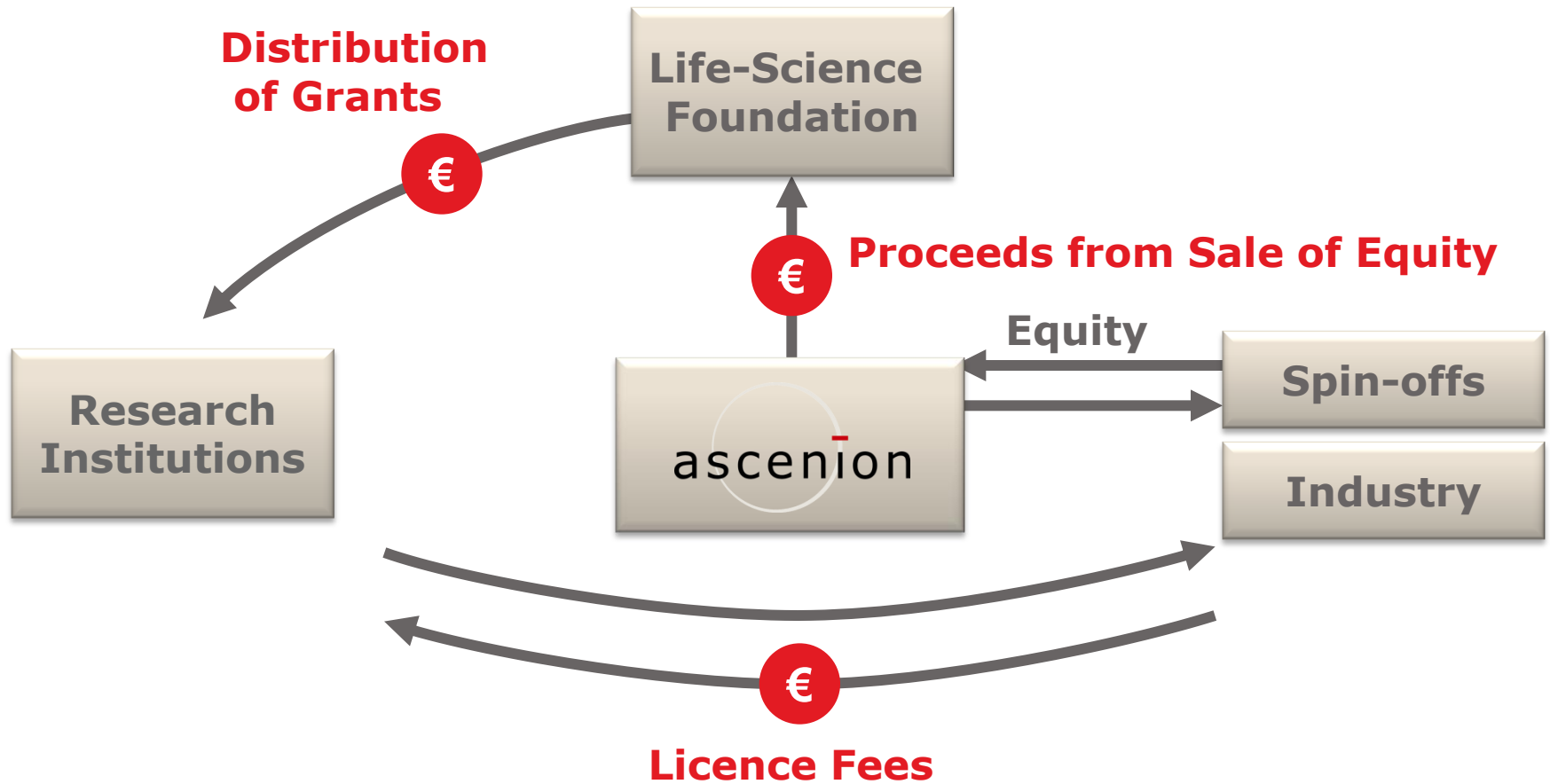
CEO: C. A. Stein

Directors:

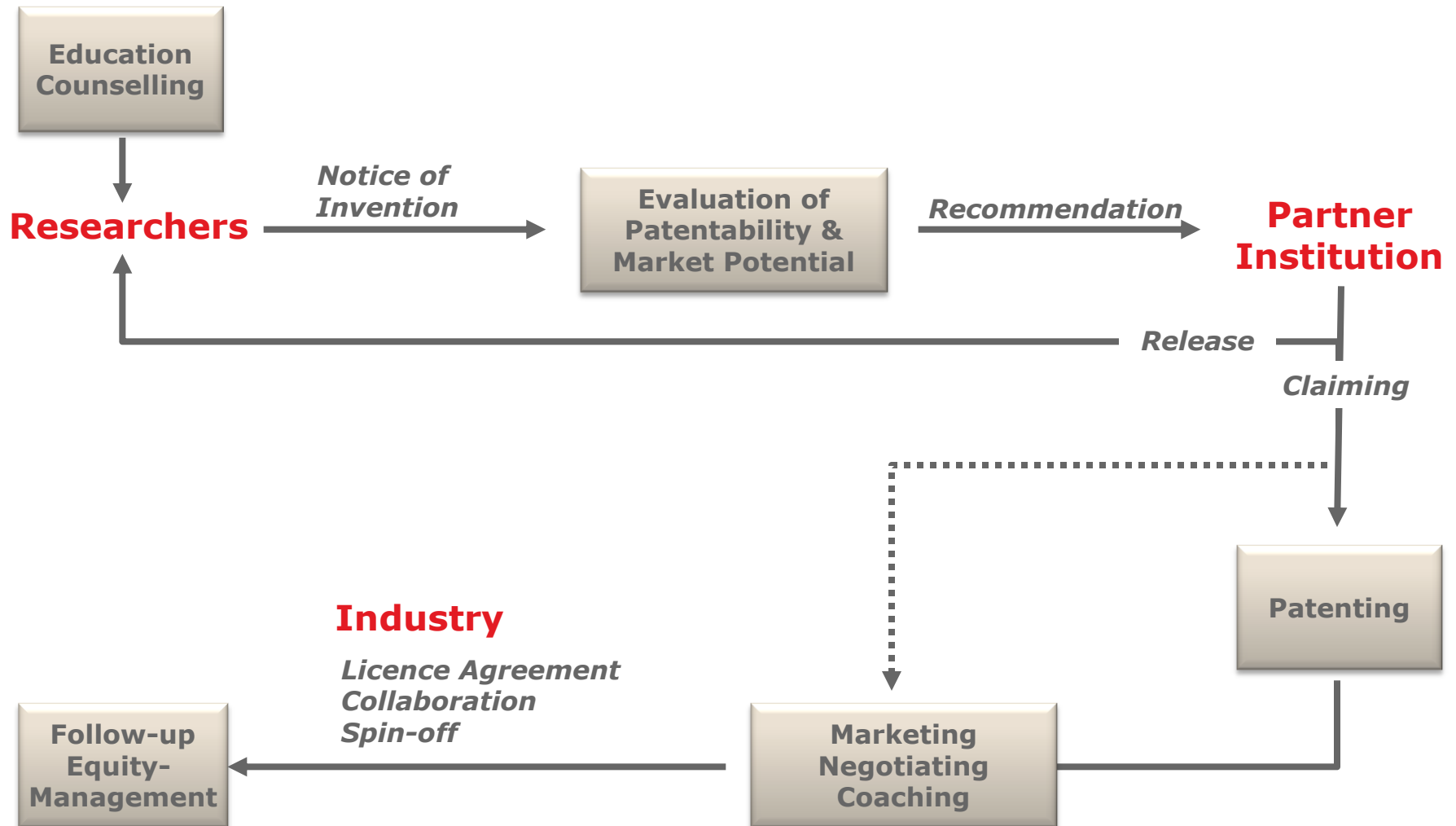
- T. Matzke (Legal)
- S. Possekel, C. Wunsch (Technology Management)

Team of analysts, technology scouts/
managers, legal advisors and project
management and assistants





Ascenion Supports throughout the Process



Approx. 5,000 scientists and 800 Mill. EUR budget p.a.

- From exclusive partners, NGFN not included

IP portfolio of over 400 technologies in 18 areas

- E.g., oncology, infection, bioinformatics

300 commercially attractive materials and research tools

- E.g. antibodies, animal models, vectors



Overview: Pipeline Therapeutics

	Research Center	preclinic	phase I	phase II	phase III	approval	market
Therapeutics							
Ixempra	HZI						●
Trifunctional Antibody (Removab)	Helmholtz Zentrum München		●	● ● ●	●		●
Coagulation factor	MDC				●		
MVA-Vector/BN	Helmholtz Zentrum München		● ● I/II	●			
MT103 (NHL, ALL)	MDC		●		● Pivotal		
TB vaccine	VPM			●			
Prostate Cancer Vacc.	VPM		● I/II				
BOL-148 (Cluster Headache)			●				
MALP-2S (Adjuvans)	HZI	●	●				
TB-Antibiotic	HKI	●					

Overview: Pipeline Diagnostics, Medtech, Other

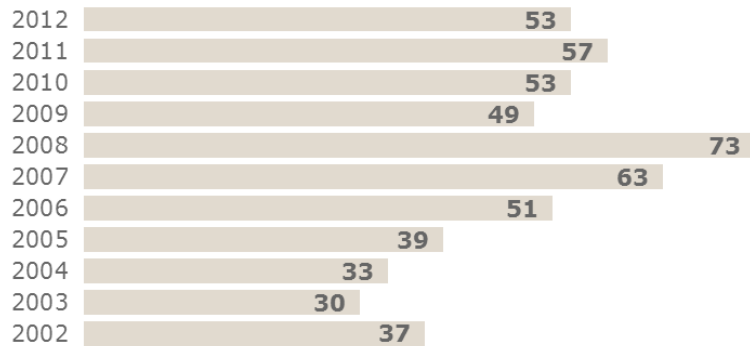


	Research Center	Status
Diagnostics		
Detection JC-Virus	DPZ	
Cardiomarker GDF-15	MHH	Exclusive license to Roche; product placement
Chikungunya-ELISA	BNI	Non-exclusive license to Novatec; (Market)
Medtech		
Watchhaler Inhalation System	Helmholtz Zentrum München	Market (Activaero GmbH)
Ventricular assist device	DLR	Successful longterm studies in mini-pigs and calves
High resolution CT	Helmholtz Zentrum München	License for material testing to Yxlon
Imaging technology	Helmholtz Zentrum München	Novel opto-acoustic imaging technology in preclinical phase (iThera GmbH)
Other		
Bitterblocker	DIfE	Market

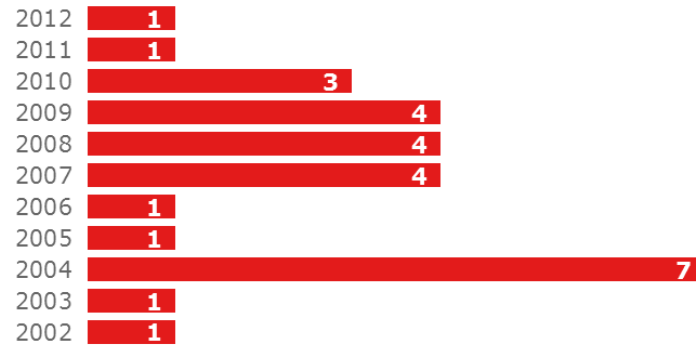
Results: Patents, Agreements, Spin-offs, Revenues

Since 2002 revenues of 39,6 Mill. EUR from more than 650 agreements

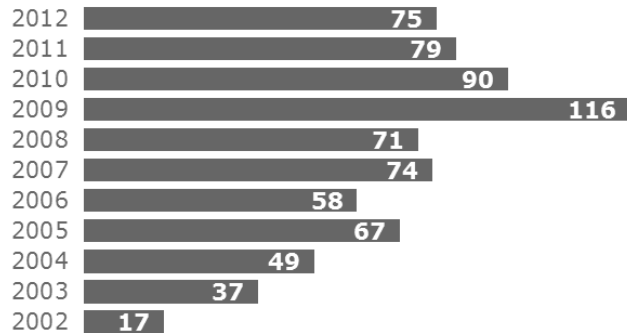
Patent applications



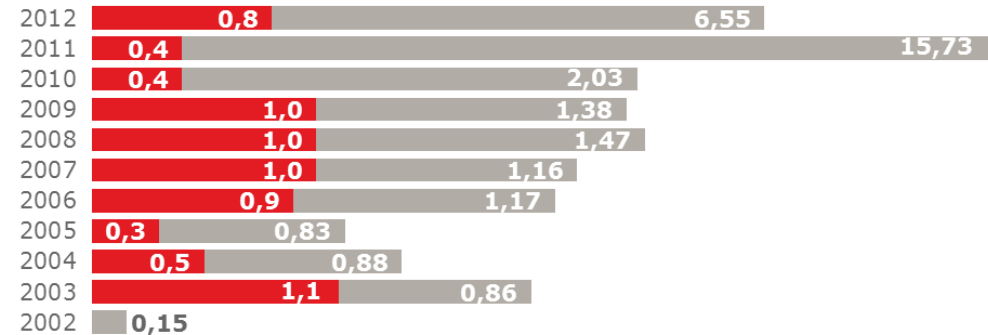
Spin-offs



Agreements



Total Revenue in Mill. EUR



■ Proceeds for LifeScience Foundation

■ Revenues from agreements

Equity in 23 Spin-offs

- Activaero GmbH
- Adakos GmbH*
- Amvac AG
- Biomax AG
- Bioregeneration GmbH*
- Bitz gGmbH
- Certus Pharmaceuticals Ltd
- Clueda AG
- Dualis MedTech GmbH
- eADMET GmbH
- Encepharm GmbH
- Entheogen Corp.
- Genomatix GmbH
- IBA Biologics GmbH*
- Inamed Research GmbH & Co KG
- Ingenium Pharmaceuticals GmbH*
- InSCREENex GmbH
- IsoDetect GmbH
- iThera GmbH
- KeyNeurotek AG*
- Kinaris Biomedicals GmbH*
- MBIotec GmbH*
- Medtherm GmbH
- NanoRepro GmbH
- Photonion GmbH
- Protectimmun GmbH
- R & D Biopharmaceuticals GmbH
- Trion Pharma GmbH*
- Tube GmbH
- Vaecgene GmbH
- Vakzine Projekt Management GmbH



Coordination of technology transfer in the NGFN:

- Large-scale research project linking teams across Germany



Mouse Genetics Cologne Foundation

- Exclusive marketing of more than 50 mouse models developed by Prof Klaus Rajewsky



Spinnovator

- Innovative instrument for the exploitation of innovative technologies



BioVaria

- European technology transfer conference for initiating of partnership between academic research and industry



Idea

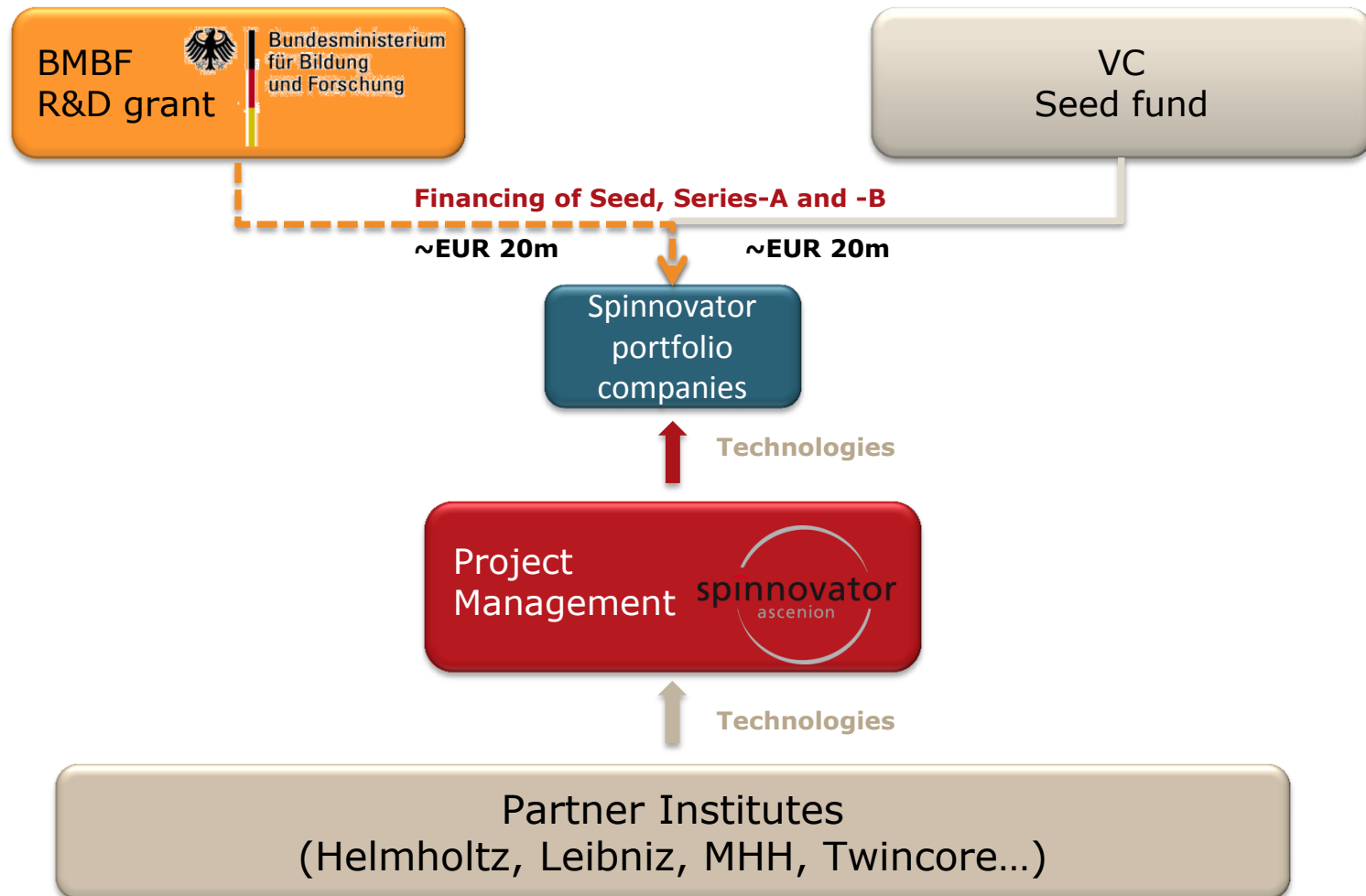
- **Alternative instrument** for the exploitation of innovative technologies
- **Optimisation of spin-off** development
- **Cooperation** with experienced **Venture Capital** partner
- **Smart Seed Money**
- Financing via BMBF **R&D grants** and VC **fund**: up to 7,5 Mill. EUR per spin-off



Aim

- Foundation and successful development of spin-offs
- Significant value increase through further internal development and late out-licensing of technologies

Spinnovator - Structure



Key features of BioVaria:

- One interactive day with an overview of licensing opportunities from publicly-funded research in Europe
- More than 50 commercially attractive, patent-protected technologies covering different indications
 - research tools,
 - diagnostics
 - therapeutics
- Unique format combining 10-min oral presentations with an all-day poster exhibition
- Ample space to discuss scientific details face-to-face with the inventors
- Jointly organized by Ascenion and a broad range of German and European technology transfer organizations



// BioVaria gathers exactly those European research institutes that are most likely to have interesting licensing opportunities to offer. //

Dr Erik Wade, Grünenthal

www.BioVaria.org

Accredited referee and coach

- MBPW, Munich's business plan competition
- HTGF, High-Tech Start-up Fonds
- HEF, fonds supporting spin-offs from research institutions
- Leibniz X, Leibniz Association's advisory service for entrepreneurs
- ExistGo-Bio, support program of the Federal Ministry of Education and Research (BMBF)

Expert

- OECD, Collaborative mechanisms for IPR in biotechnology
- European Commission

Partnership with BIO Deutschland

- Collaboration to accelerate the transfer of new findings from research to industry

- **One point of access** to an outstanding life-science IP portfolio
- Experienced and interdisciplinary **team of specialists**
- **Extensive network** to the international industry, investors, experts
- **Long-term** approach in structuring partnerships and licensing agreements
- Substantial **proceeds** for inventors and research institutions
- Tool for **validation** and **investment** of technologies

**Thank you very much for your
attention!**

contact for questions: heim@ascenion.de