

30 YEARS
FOCUSED ON
INNOVATION

30 Years of Heidelberg Technology Park

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Ladies and Gentlemen,

There is scarcely another city in the State of Baden-Württemberg as world-famous as Heidelberg. Heidelberg is therefore a major asset in Baden-Württemberg's efforts to promote itself as an economic location.

In the field of biotechnology Heidelberg is the best example of a modern economic location. As the hub of the Rhine-Neckar biotechnology region the city operates one of Germany's largest biotechnology centers. Thus Heidelberg's claim to fame is not just as a major tourist attraction but also as a prime high-tech location in Baden-Württemberg. A modern, cosmopolitan city that can boast technical progress, highly qualified and motivated people, and a forward-looking economic structure – all bang in the middle of a highly attractive living environment.

Heidelberg Technology Park was founded thirty years ago with the support of the State of Baden-Württemberg and was de facto the first biopark in Germany. Even back then Baden-Württemberg had a very far-reaching vision of the competences and potential of this location in the field of red biotechnology and sought to promote it with targeted research funding. At the same time, Heidelberg University with its renowned Center for Molecular Biology (ZMBH) and university hospitals, in combination with the German Cancer Research Center (DKFZ), and the European Molecular Biology Laboratory (EMBL), provided a fertile breeding ground for the enormous scientific and economic potential of biotechnology.

These life sciences and medical institutions with their outstanding national and international reputations no doubt had a major role to play in the selection of the Rhine-Neckar Bioregion as one of the three winning regions in the legendary BioRegio competition staged by the Federal Ministry of Education and Research. The impetus triggered by winning the BioRegio competition in 1997 and the achievements this generated speak for them-

selves: today the BioRN Network embraces approximately 200 life science companies and academic research facilities that altogether employ almost 35,000 people in the life sciences.¹

Under the slogan "Strengths must be strengthened" and with the goal of supporting the rapid translation of research findings into industrial applications, the State of Baden-Württemberg has played a major role in the further expansion of the startup scene, especially in the field of biotechnology. In 1997/1998 we used resources generated from privatizations to fund the second phase of construction in the Heidelberg biopark. This provided well over 8,000 square meters in laboratory and office space exclusively for young biotech companies, coinciding precisely with the startup boom. Even before construction was completed these new premises were already fully spoken for. Finally, in mid-2000, with the support of the State of Baden-Württemberg the third and largest phase of construction, yielding 30,000 square meters of new laboratory and office space for biotechnology companies, got under way. Ultimately, the achievements of the top cluster BioRN are due in no small measure to the success of Heidelberg Technology Park.

I would like to extend my heartfelt thanks to all those who have contributed to the Heidelberg Technology Park project and who are continuing to do so. And I wish the many innovative companies that this Technology Park has generated continuing enjoyment of their interesting work combined with the necessary economic success.

Dr. Nils Schmid MdL

Deputy Prime Minister and Minister of Finance and Economics of the State of Baden-Württemberg

¹ BioRN Network e.V., Rhine-Neckar Biotech Cluster



The City of Heidelberg recognized very early on and as one of the first cities in Germany to do so that innovation and the spirit of enterprise are part of the value chain – from excellent fundamental research conducted in a free atmosphere all the way to its utilization for the benefit of people and society. Thirty years ago, together with other players such as the Rhine-Neckar Chamber of Industry and Commerce and Heidelberg University, it initiated the founding of Heidelberg Technology Park.

Today, the Technology Park enjoys a high measure of respect worldwide. It stands for innovative industry, technology transfer, and support for research spinoffs and portfolio companies. In an area now encompassing 80,000 square meters researchers are busy developing modern solutions in the field of renewable energy or investigating new drugs to fight cancer. They are thus making an important ecological and social contribution.

Heidelberg Technology Park supports young and innovative companies, particularly in the fields of medicine, biotechnology, the environment, IT, and organic electronics. Many of them have high levels of R&D expenditure and conduct complex and costly clinical studies or studies on how to avoid environmental toxicity. The Technology Park offers them both affordable premises tailored to their special needs and nonmaterial support in developing networks and cooperative ventures or in their search for funding and ways of marketing their ideas and products.

Intensive cooperation with numerous partners – alongside the initiators we should certainly mention the European Molecular Biology Laboratory (EMBL), the German Cancer Research Center (DKFZ), the Center for Molecular Biology (ZMBH), the University of Education, the SRH University Heidelberg and the university hospital – has always been a prominent feature of the Heidelberg Technology Park.

Heidelberg has a dense concentration of excellent research facilities. The Technology Park makes a major con-

tribution toward utilizing this enormous potential. Over the past thirty years it has provided the impetus for many things. Not only has the Technology Park itself grown steadily, now comprising five sites, but it has also enabled numerous companies to be founded and has sparked important initiatives, such as the Heidelberger Startup Partners or the two leading-edge clusters Forum Organic Electronics and Biotech Cluster Rhine-Neckar (BioRN). These achievements stem primarily from the exchange between science and industry in which the Technology Park can take pride.

The development of the Technology Park is going so well that we believe the prospects are excellent for establishing an organic electronics production park in redevelopment areas, specifically on the Patton Barracks site. This site would locate the park in the immediate vicinity of the leading-edge cluster Organic Electronics, the SkyLabs, and the production park in the Old Slaughterhouse – all facilities in Heidelberg's new Bahnstadt.

The Technology Park is thus continuing to grow. With our own and our children's future well-being in mind we will continue to invest in research, education, sustainability, environmental protection, and health. I would like to extend my heartfelt thanks to all those involved for their outstanding work and their continuing engagement.

Dr. Eckart Würzner

Lord Mayor of Heidelberg

30 Years of Heidelberg Technology Park

From Idea to Product

Technology parks and innovation centers were established in Germany in the early 1980s as a special instrument to promote business and further regional development. They support spinoffs from universities, network academic institutes with industry, and facilitate entry into the German market for foreign companies. Over the past thirty years, almost 27,000 companies have been established in Germany's technology parks and innovation centers, generating more than 250,000 jobs. In mid-2010, there were around 350 technology parks and innovation centers of all shapes and sizes, home to around 14,000 companies engaged in a broad spectrum of fields. At 90% the success rate for companies that started life in such centers is significantly higher than for those founded elsewhere. Of the remaining 10%, 5% failed to achieve sufficient growth and only 5% were declared insolvent¹ and hence forced to leave the centers. In other words, the technology park concept has been an enormous success.

Over the past thirty years, Heidelberg Technology Park has kept pace with its tenants' needs, expanding in several phases of construction at five different sites. Although the Technology Park was planned from the outset with a far-sighted perspective and a great deal of optimism, even those 1980s visionaries find its current size and its status as an international model extremely impressive.

The chief site is still Neuenheimer Feld on the university campus, just a stone's throw away from the university hospital and the German Cancer Research Center (DKFZ). Offering laboratories and offices for medical and biotechnology companies, it is an impressive symbol of the successful concept. The space provided here by the university and the City of Heidelberg gives high-tech companies room to put down roots and grow. The power to choose tenants resides with the public authorities while the practical side of rentals is handled by Technologiepark Heidel-

berg GmbH, a joint venture of the City of Heidelberg and the Rhine-Neckar Chamber of Industry and Commerce. The buildings themselves are all owned by Technology Park limited partnership in which the Sparkasse Heidelberg holds a 100% stake. This has the dual advantage of both sharing the risk and providing complementary functions – property management on the one hand and specialized services for users on the other.

According to Ernst & Young's 2013 report on the biotechnology sector, German biotech companies employ on average twenty-five staff. Data held by the BioRN Network Verein, an umbrella organization that has represented the interests of the biotech clusters in the Rhine-Neckar region since 1996, show that the almost 100 biotech companies currently employ nearly 4,000 people. Altogether the Technology Park has offered a home to almost 230 companies, and while it is difficult to say precisely how many jobs this has created, on the basis of national and regional data I would assume a figure of between 6,000 and 10,000. This core of highly-qualified personnel employed by Technology Park tenants has in turn led to other jobs being created by external service providers and partners affiliated with the network. The number of such jobs is likely to be two or three times higher than those created directly in the high-tech companies.

Another plus is the great many patents that have been approved and the licenses that have been granted, leading to the creation and marketing of products and services. LION bioscience was floated on the stock exchange on July 26, 2000, becoming the first Technology Park company to have its shares traded on Germany's Neuer Markt.

¹ G. Baranowski, B. Dressel, A. Glaser, *Innovationszentren in Deutschland 2010/11*, ADT – Bundesverband Deutscher Innovations-, Technologie-, und Gründerzentren e.V. . Berlin, 2010



Like many other tenants at the Technology Park, LION has gone through some turbulent times with many highs and lows. Indeed, the ups and downs that are a fact of life for any business are especially typical for companies developing new drugs or innovative methods of medical treatment. Yet viewed in retrospect, it would be wrong to equate even the liquidation or downsizing of large tenant companies with complete failure: staff who are laid off take with them a wealth of knowledge and experience and have either found new jobs with other local companies or started companies of their own – and in some cases have even become sought-after international experts. At any rate, all have contributed to the Technology Park's enormous global network, doing a tremendous amount to facilitate new cooperation projects and international business relationships.

The key to the success of the tenant companies at Heidelberg Technology Park is twofold: on the one hand, the physical infrastructure, consisting of technically well-equipped laboratory and office space; on the other, the assistance provided to companies in their actual work in the form of business development aids and international networks. The buildings' outstanding infrastructure provides a base for young companies and lightens the burden of investment. Laboratories, workshops, clean rooms, storage space, and access to shared large-scale technology are crucial to the success of research-intensive companies and are supplemented by companies' own special equipment.

The Technology Park's networks connect decision-makers all over the world, qualifying scientists' ideas and setting up personal contacts with market experts to evaluate projects, hence putting companies in a position to acquire international funding.

Heidelberg Technology Park is primarily an association of specialists and persons in positions of responsibility and

hence far more than simply a piece of real estate full of machines and equipment. What matters, after all, is being able to talk to the right people in the right place at the right time. Networks are "soft facts," but they pay off in hard cash. Another feature of the Technology Park is its critical mass of companies and research institutions existing cheek by jowl and constituting a complete value chain – from top-flight research to versatile, small companies, through to powerful investors and international giants operating in the region.

I would therefore like to extend my sincere thanks, on behalf of my fellow partners and the former management of Heidelberg Technology Park, to all those who have actively contributed to our achievements with such dedication and passion over these past decades. I wish all of us a future of continuing superlatives and many more anniversaries on which to commemorate tradition and foster new ideas.

Dr. André H.R. Domin

CEO of Technologiepark Heidelberg GmbH

The History of the Technology Park

Idea, Concept, Development

Heidelberg Technology Park was founded in 1984 as Germany's first science park with a focus on the life sciences. It subsequently broadened its scope so that today it also covers the fields of biotechnology, pharmaceuticals, environmental technology, IT, and Internet services.

The Technology Park was founded to support and accelerate the translation of R&D in the field of biotechnology into commercially viable products. Originally the idea was to base R&D companies at the Neuenheimer Feld site, moving them to the Czernyring production park, located on the site of the former slaughterhouse, once they reached the production phase. The Czernyring production park today forms part of Campus II in the new Bahnstadt neighborhood.

Heidelberg Technology Park to this day continues to offer companies in all phases of development – from the startup to the mature company of international standing – support and premises to match their needs. Over the past thirty years, more than 230 companies and institutions have rented premises at the Technology Park's various sites. Biotechnology companies in Germany employ an average of twenty-five staff, which means the Technology Park has been home to 6,000-10,000 highly qualified people in the field of R&D.

Right from the start, a key element in its successful concept has been the proximity of its principal site on the

Heidelberg University campus to research centers and hospitals. The world-famous German Cancer Research Center is located in the immediate vicinity as are the science faculties of Heidelberg University, the many clinics and institutes of Heidelberg University Hospital, the Max Planck Institutes, and the headquarters of the European Laboratory for Molecular Biology. This is an environment generating patents, licenses, product ideas, and spinoffs and at the same time one that gives scientists the chance to work with both young and established corporate cooperation partners in the Technology Park. Around 25,000 scientists, doctors, and other health professionals are engaged in health promotion work at the Neuenheimer Feld Campus, where the potential in terms of expertise, creativity, and academic prowess is outstanding even by international standards.

Alongside what might be called the "hardware" – the buildings themselves with their multifunctional and flexible laboratory and office space – the range of "software" in the form of specific services has also been expanded continuously. Tenants and their partners or clients not only have a conference center at their disposal but also a canteen and cafeteria, childcare facilities, the Association of Local Technology Transfer Offices, the Heidelberg Startup Partners, the main offices of BioRN Network Verein (the regional biotech networking association), attorneys' offic-



Construction phase 1 at Neuenheimer Feld

es, marketing and IT companies, a travel agency, and a car sharing station, all within walking distance. Still more services are offered by the many Associate Members of the Technology Park and a network consisting of international technology parks and close contacts with pharmaceuticals and biotechnology companies.

One big advantage of cooperating with other technology parks and their tenants and local networks is the excellent opportunity it provides to forge links with researchers and companies in other regions and to share experiences regarding scientific and economic parameters. Via these steadily growing networks accessible to all, combined with the requisite spatial infrastructure, the Technology Park helps its tenants to transfer technology from academia to industry and ultimately to the clients and product users.

Most of the buildings in the Technology Park are owned by private companies or independent institutions, which guarantee maximum flexibility regarding both the furnishing of the premises and the length of tenancy.

The buildings at the main Neuenheimer Feld site on the university campus are owned by TP II GmbH & Co. KG, a real estate subsidiary of the Sparkasse Heidelberg group, but Technologiepark Heidelberg GmbH, a joint venture of the City of Heidelberg and the Rhine-Neckar Chamber of Industry and Commerce, is responsible for choosing ten-

ants on the basis of criteria such as a promising business model or a company's potential to strengthen the existing cluster. A fitting profile, cooperation, and synergy effects are hence right at the top of the list of criteria designed to promote sustainable growth of all the companies based at the Technology Park.

For thirty years now Heidelberg Technology Park has been a vibrant, creative location where science and industry team up to generate new ideas and translate them into successful products and services that benefit people and heal patients. Here the cycle of public financing of fundamental research, application-oriented science, patenting, licensing, product approval, production, and medical treatment – all geared to health – comes full circle.



Fig.1: The partners sign the contract on May 3rd, 1984: Mayor Reinhold Zundel explains the plans

30 Years of Heidelberg Technology Park

Timeline

1980

Initial discussions between the city and the university about new ways to integrate fundamental research and application-oriented development in Heidelberg.

March, 1982

- During preliminary discussions about a construction plan for a special technology area Lord Mayor Reinhold Zundel sees three possible sites:
 1. The Langgewann extension.
 2. The 6.5-hectare site on Klausenpfad in the Handschuhsheimer Feld area earmarked as a reserve site for the Gesamthochschule (polytechnic).
 3. Development of a site in the Pfaffengrund between Speyerer Schnauz and the School of Horticulture.
- A commission to be chaired by Mayor Dr. Karl Korz is founded in agreement with Heidelberg University Rector Prof. Dr. Dr. h.c. Adolf Laufs, University Chancellor Siegfried Kraft and Prof. Dr. Dr. Heinz A. Staab (co-director of the Max Planck Institute) are asked to find answers to the questions: What is technology exchange? What kinds of companies will be supported by a technology park of this kind?

April, 1983

Lord Mayor Reinhold Zundel appoints Dr. Fränkel, Walter Lenz, Dr. Klaus Plate, Karsten Schröder, and Dr. Wolfgang Wagner from the Legal Office to a technology park team charged with coordinating the necessary activities for a "Technologiepark Heidelberg GmbH" between the city's various offices and departments. Dr. Fränkel is chosen to lead the team. The first meeting takes place on April 27, 1983. In the following months the team drafts a concept, Articles of Association for the Technologiepark Heidelberg GmbH, and rules of procedure.

July 21th, 1983

The city council decides that the City of Heidelberg will hold a DM 500,000 stake in the planned Technologiepark Heidelberg GmbH.

1984

- In the summer the first companies apply to rent premises at the Technology Park (TP). Decisions on rental agreements are taken by Technologiepark Heidelberg GmbH on the basis of expert advice from its Advisory Board.
- The TP becomes a founding member of the International Association of Science Parks (IASP), a global network.

May 3rd, 1984 — Fig.1 / P.10; Fig.5

The Articles of Association establishing the Technologiepark Heidelberg GmbH are signed at Heidelberg City Hall. As the majority shareholder the City of Heidelberg holds DM 500,000 of the company's nominal capital and the Rhine-Neckar Chamber of Industry and Commerce DM 10,000. The company's first Director is Karsten Schröder from the City of Heidelberg's Business Development Department. The headquarters of Technologiepark Heidelberg GmbH are in the Palais Graimberg on Kornmarkt in Heidelberg's old town. The company has four organs: the management, an eleven-member advisory board, a five-member board of trustees, and the shareholders' meeting.

July, 1984 — Fig.6

The State of Baden-Württemberg releases a 1.2-hectare plot of land on the science faculties' campus at a peppercorn ground rent. On July 26, 1984, the leasehold agreement between the State of Baden-Württemberg and the City of Heidelberg is signed and a subsidiary leasehold agreement is concluded for plot No. 5932/11 for the Roland Ernst development company Technologiepark Heidelberg I KG.

July 26th, 1984

Planning permission is granted for the buildings numbered 1 to 6 and for outdoor and ancillary facilities including 83 parking spaces.

August 3rd, 1984 — Fig.2-4

- The first phase of construction at the Neuenheimer Feld site begins.
- Articles of Association are prepared for the Roland Ernst development company Technologiepark Heidelberg I KG, headquartered in Eschelbronn, and entered in the Commercial Register of Heidelberg District Court. Roland Ernst becomes the personally liable partner with a fixed equity interest of DM 700,000. The Bezirkssparkasse Heidelberg becomes a limited partner with 74 % of the limited liability capital. The company's fixed capital amounts to DM 2,700,000. To enable companies to locate at the site Roland Ernst KG is charged with constructing the approved buildings within the space of twelve months and then managing them.



Fig.2: Groundbreaking ceremony for construction phase 1 at Neuenheimer Feld on August 3rd, 1984; Mayor Reinhold Zundel delivers a speech



Fig.3: Symbolically, the first digger goes on site



Fig.4: Official groundbreaking ceremony for construction phase 1 on August 3rd, 1984



Fig.5: The partners sign the articles of association on May 3rd, 1984



Fig.6: Signing the leasehold agreement on July 26th, 1984



Fig.7: Topping-out ceremony for construction phase 1 on March 15th, 1985: the shell



Fig.9: Traditional topping-out speech for construction phase 1



Fig.8: TP CEO Karsten Schröder gives a speech at the topping-out ceremony for construction phase 1



Fig.10: Guests at the topping-out ceremony



Fig.11: Construction phase 1: progress of work, September 1984



Fig.12: Progress of work, November 1984



Fig.14: Progress of work, February 1985



Fig.15: Completed construction phase 1, INF 517-519



Fig.17: Official opening by Prime Minister Lothar Späth on November 26th, 1985



Fig.18: Speech at the official opening



Fig.13: Progress of work, February 1985



Fig.16: Completed construction phase 1 with nameplate of the first firms



Fig.19: Prime Minister Lothar Späth inspects the new laboratories

March 15th, 1985 — Fig.7-10 / P.14-15

Topping-out ceremony for the first phase of construction.

1985 — Fig.11-16

In the summer the first phase of construction of the Technology Park costing around DM 12 million is completed and the first premises are handed over to tenants on July 1. The flexible building complex INF 517-519, comprising six sections, provides a gross floor area of approximately 6,000 m². It consists of one four-storey and several two- and three-storey tracts built around a small park with a pond. The architects are Dipl.-Ing. Kuhlmann und Bau-Ing. Hirschfeld of Heidelberg.

The TP is Germany's first biopark and is launched with eleven biotechnology companies: Denagen GmbH, Fermigen GmbH, Gen bio tec Gesellschaft für gentechnologische und biotechnologische Forschung mbH, Heidelberg Instruments GmbH, IBL International Biotechnology Laboratories GmbH, IBT Institut für Biochemische Technik Serva-Technik GmbH, Organogen Medizinisch-Molekularbiologische Forschungsgesellschaft mbH, OXO Chemie GmbH, Progen Biotechnik GmbH, TCH Thermo-Consulting-Heidelberg GmbH, Technoma GmbH

November 11th, 1985 — Fig.17-19

Following completion of the first construction phase the new buildings are officially opened by Baden-Württemberg's Prime Minister Lothar Späth and celebrated in a reception at the Europäischer Hof hotel.

IBL UMWELT- UND BIOTECHNIK GMBH –

Thirty years at Heidelberg Technology Park

IBL Umwelt- und Biotechnik GmbH was founded in 1984 as International Biotechnology Laboratories GmbH. It was one of the first eleven companies to locate at the Technology Park.

From the start, IBL's R&D focus has been primarily on biotechnical products for environmental purposes. They include preventive environmental protection and technologies for eliminating hazardous substances in the soil and ground water using natural microorganisms. Since 1989 IBL has been active worldwide as an engineering and service company in damage remediation, land recycling, and production-integrated environmental protection: It has also offered a complete package of services from preventive environmental protection to damage assessment, analysis and planning, and damage remediation.

The so-called UMWELT FACTORY concept provides the basis for delivering these services. It consists of four complementary fields of specialization – planning and expertise, remediation and process engineering, recycling and waste management, and IBL laboratories. The company thus offers planning and rapid implementation of technical solutions from a single source, allowing the various steps – whether they involve analysis, engineering, construction or remediation technology – to be accomplished as a single process without having to take a circuitous route.

IBL moved to Heidelberg Technology Park in 1985, shifting its headquarters to the Technology Park's UmweltPark im Heinsteinwerk when the latter was founded in 2005. It also has sites in Ludwigshafen, Walldorf, and Pirmasens. IBL is represented by its Director Eberhard Kohlmeier.

GLYCOTOPE BIOTECHNOLOGY GMBH –

Founded in 2008, Glycotope Biotechnology GmbH is a subsidiary of Glycotope GmbH, a company founded in 2001 on the MDC Campus, Berlin-Buch, by Dr. Steffen Goletz. It specializes in the humanization and optimization of glycosylation structures in therapeutic proteins. Its core technology GlycoExpress™ helps to increase the efficacy and tolerability of drugs. The protein therapeutics product pipeline also includes antibodies used for treating cancer.

As part of an asset deal, Glycotope in 2008 acquired the biopharmaceutical production facility and the diagnostics business of ORPEGEN Pharma GmbH (originally Organogen), founded in 1982 by Prof. Christian Birr at the Czernyring production park. ORPEGEN was one of the first eleven companies to locate at the Technology Park. Its acquisition was financed through a capital increase signed by the investor Jossa Arznei GmbH. Behind Jossa Arznei GmbH stands Athos GmbH, owned by the Strüngmann brothers, which strategically makes its know-how available to selected companies in the biotech sector.

Although Glycotope's research is still based in Berlin, production has been transferred to Heidelberg, where four separate GMP suites initially provided a perfect environment for the further development of glycosylation technology. Since then this site has been steadily expanded, increasing production capacity from 3,000 l to 7,000 l per batch and more than doubling the number of staff. Glycotope GmbH now has 150 employees and is one of Germany's largest biotechnology companies.

Development and production of peptide agents, amino acid derivatives, and small molecules is now carried out independently by ORPEGEN Peptide Chemicals GmbH at the same site.

A look back at where Professor Birr started thirty years ago provides a good illustration of the lengthy time-frame required to develop biotechnological products. Having begun his activities in his own home, Glycotope is now able to translate his ideas into products involving a specialized infrastructure and know-how acquired over several decades.

From 1985

— Fig. 20-25

Companies gradually move into the production park, initially known as the Technology Factory, on the site of the former slaughterhouse at Czernyring 22. This is the Technology Park's second location. The first companies to move into this site are Organogen GmbH (later ORPEGEN) and Gen-Bio-Tec GmbH. A major investment by Deutsche Shell AG enabled ORPEGEN to expand parts of its production park and hence to accelerate growth.

The timeline continues on p.22



Fig. 20: The Old Slaughterhouse at Czernyring in its original condition, 1985



Fig. 21: Gen-Bio-Tec founder Dr. Sommer and team on the slaughterhouse site in 1985



Fig. 22: Hall in the Old Slaughterhouse in 1985



Fig. 23: IBL founders in their first laboratory

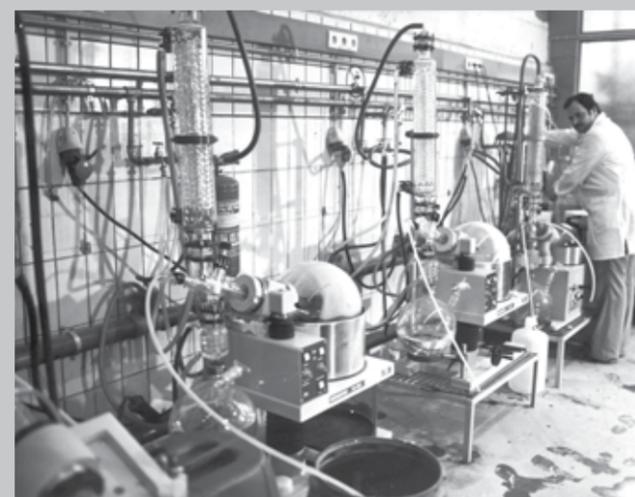


Fig. 24: One of the first ORPEGEN laboratories in the Old Slaughterhouse



Fig. 25: The Glycotope company's modern laboratory in the Old Slaughterhouse



A Man of the First Hour

Dr. Klaus Plate, CEO of Heidelberg Technology Park GmbH from 1994 to 2010

How did the idea of founding a technology park come about back in the 1980s?

That's actually a rather undramatic story: Reinhold Zundel, Lord Mayor of Heidelberg at the time, showed up at our administrative conference one Monday morning, having just returned from a trip to Japan. He put down a pile of English-language brochures on the table and said, "I saw the kind of technology parks the Japanese have, and they are the perfect thing for us. So let's get together a small team of executives to come up with a concept. Our goal is to open a technology park in Heidelberg!" So what started out as an internal idea inspired by comparison with another leading location soon took shape with the founding of a limited liability company.

Was it difficult to get the first companies you approached excited about the project?

No, not at all! The first eleven companies were really all there already, even if some of them had yet to be founded in the legal sense. Professor Birr, the founder of ORPEGEN Pharma GmbH, was already working on his first company at home and he was a real driving force behind the project.

How has the Technology Park concept changed over time?

We increasingly began to realize that premises weren't the only important thing but that companies also needed networks, connections, partners to help get a business going on the basis of a scientific idea. This development of course attracted companies offering these kinds of services to the park, and it was this line of thinking that gave rise to the idea of associate membership.

The Technology Park as a vibrant place for people to meet up, share ideas, and enter into cooperation projects will certainly gain in significance in the future.

Why did companies from elsewhere choose Heidelberg?

That has to do with Heidelberg's international reputation as a prestigious science location. If a research or indeed business location has this kind of standing, then it will encourage companies to take a closer look at what is currently going on there and the potential it offers. That's why the International Partnerport was established at the Technology Park to offer interested parties intensive support on the spot.

What were the most memorable moments during your years at the Technology Park?

After we won the first BioRegio competition. We were all raring to go, and winning the competition finally brought us the external recognition we so badly wanted. It motivated us to redouble our efforts to live up to the standards set by the competition and to show just what this location is capable of. The Excellence Cluster competitions gave us a similar kind of boost.

How do you imagine the future of the Technology Park?

It will need to go beyond the life sciences and tap into other fields and offer the services to match. Organic electronics, for example, is a very important new area of focus, but a number of other fields are emerging as different disciplines converge. There are some highly creative and competent people working in the fields of virtual reality and IT. The Technology Park should be a hub for an ongoing creative dialogue between researchers and people from business and politics.

What is your advice to young companies when it comes to financing?

That's a very difficult question, because classic startup financing is no longer a viable option. And I reckon the venture capital scene still isn't prepared to take risks but usually comes on board much later – in many cases too late. So we will need to come up with other, more business-oriented models. I could, for example, imagine taking the following approach: a major pharmaceuticals company starts its own business incubators and puts together teams. After letting them work together for a while, it decides whether they are successful and convincing and provides more funding as appropriate.

Another exciting concept is the one employed by BioMedX, a company based at the Technology Park that allows companies to outsource, so to speak, certain segments of research they are interested in and have other research teams work on them. From the point of view of company development it's really the opposite route to classic startup financing, which primarily looks for scientific innovation and general market potential. Nowadays R&D teams are gearing their research work and product development to the requirements and product ideas of their potential future clients right from the start. Startups are therefore much closer to future markets and economic success.

1988

At the initiative of numerous innovation and startup centers, the organization now known as the ADT – the German Association of Innovation, Technology and Business Incubation Centres – is founded. Heidelberg Technology Park is still a member.

June, 1988

Almost 70 delegates from all over Europe attend a meeting of European technology parks hosted by Heidelberg.

1991

Planning permission is granted for the next phase of construction on an area of 5,800 m², but financing for the project has yet to be secured.

January, 1994

The shareholders' meeting held on December 21st, 1993, appoints Dr. Klaus Plate Chief Executive Officer of the TP. He assumes office in January 1994.

1994

The first BioEurope conference takes place in Heidelberg and is attended by 200 delegates.

1995

- An interim assessment after 10 years: Of the 11 original companies one went bankrupt, two were dissolved, six were successful but moved away, and two are still tenants at the TP. Ten companies and three research facilities (DKFZ, MPI, Steinbeis-Stiftung) now work in the TP. In the production park, which is part of the TP organization, six companies are engaged in developing and producing biotechnological products.
- As the second phase of construction gets under way a new structural concept for the TP is developed together with the shareholders (the City of Heidelberg and the CIC), the university, and the DKFZ. In future the TP is to play a more active role in bringing together research and industry. The TP's remit is enlarged to include environmental economics and technology and IT, in addition to biotechnology. Being a member of the TP will now mean sharing not only a particular building but also the same professional and communications network as well as an information network and the services offered by the TP.
- For the planned second phase of construction at the TP the Baden-Württemberg government approves funding to the tune of DM 4 million.

November, 1996

The BioRegion Rhine-Neckar Triangle wins the BioRegio competition staged by the Federal Ministry of Education and Research (BMBF): The BMBF allocates a total of DM 50 million over a period of five years to the Rhine-Neckar Triangle BioRegion for innovative, application-oriented R&D projects in the field of biotechnology. To coordinate the projects the BioRegion Rhein-Neckar-Dreieck e.V. (now BioRN Network e.V.) is founded on October 21st, 1996. Alongside the TP the 14 founding members include the City of Heidelberg, the CIC, the Verein Zukunft Metropolregion Rhein-Neckar, the DKFZ, Heidelberg University, Mannheim University, Roche, Merck, BASF, Biomeva, and Ernst & Young.

1997

- To realize the BioRegio concept the Biotechnology Center Heidelberg (BTH) is established, offering funding and support from research idea to assessable business project through to the founding and development of companies, all from a single source. The organization consists of three legally separate entities:
 1. The BioRegion Rhein-Neckar-Dreieck e.V., whose members are representatives of the scientific and, industrial sectors and public institutions, functions as an interface with research. Its task is to identify, select, and assess projects that could be funded within the framework of the BioRegio program and to allocate them targeted funding. It thus helps project ideas to get off the ground.
 2. Heidelberg Innovation GmbH forges links with industry and is profit-oriented. It provides services for BioRegion Rhein-Neckar-Dreieck e.V. and supervises and supports "more mature" projects.
 3. The Bioscience Venture GmbH & Co. KG acts as the lead investor in early-stage startup projects.
- In 1997 the Board of Trustees of BioRegion Rhein-Neckar-Dreieck e.V. evaluates 45 research projects entailing total expenditure of DM 75 million. Of these, 17 projects entailing expenditure of DM 59 million are recommended for financing from the BioRegio fund of the Federal Ministry of Education and Research. Of this DM 59 million, DM 20 million is provided by the BioRegio fund; the remaining DM 39 million comes from the private sector or the respective companies' own capital. This equates to a private finance ratio of 67%. By the end of 1997 eight new startups in the region (five of them in the TP) have been funded through the BioRegio Rhine-Neckar Triangle initiative, creating more than 70 new jobs by the end of 1998.

April, 1997

The campus office of Technologiepark Heidelberg GmbH opens at the Neuenheimer Feld site. Frau Pamela Bogner (PKB Marketing Support) is appointed by TP GmbH to head it. Her job is to facilitate communication between tenants, the property management company, and TP GmbH.

May, 1997

— Fig.26 / P.24

On May 6th, the foundation stone is laid for the second phase of construction (BioPark) at the TP. The laboratory and office space is scheduled to be completed in May 1998. The project is financed jointly by the Baden-Württemberg Ministry of Economics (DM 3.4 million) and the City of Heidelberg (DM 1.35 million).

The developer is once again Roland Ernst's Technologiepark Heidelberg I KG. Architects Gudrun und Ernst Kuhlmann are responsible for planning, while Klee KG Illvesheim is general contractor in charge of building works. During construction of the shell building a decision is taken to increase the built space from the 3,000 m² originally envisaged to 4,500 m². Despite the increase in volume, the additional space is quickly rented out.

June, 1997

On June 13th, an agreement is signed at Stony Brook, Long Island, on future cooperation with the bioregion of New York State.

September, 1997

On September 29th, the venture capital fund Heidelberg Innovation GmbH & Co. Bio Science Venture KG (BSV) is founded with DM 9.5 million in seed capital. The fund is part of the prize-winning BioRegio concept of the Rhine-Neckar Triangle region selected by the Federal Ministry for Education and Research and is designed to provide financing for promising biotech startups in the region.

By the end of 1999 almost DM 8 million has been invested in young biotech companies. This sum is topped up with another DM 40.4 million from public funding budgets and DM 15.4 million from co-investors. 120 business ideas and concepts are examined. Eventually a decision is taken to invest in eight companies: LION, FeBit, ATEC Dr. Mann GmbH, Heidelberg Pharma, MMI, Graffinity, MTM, and Therascope.

November 3rd, 1997

The topping-out ceremony for the new Biopark building is celebrated.



Prof. Stefan Meuer, Managing Director of the Institute for Immunology at Heidelberg University and Chairman of the Board of the BioRN Network e.V.:

"Even today many scientists still feel no incentive to found a company and they do not see it as a measure of their achievements. In my view, researchers in the life sciences should not see their goal as solely to get their research findings published. Research must lead to products that benefit people, that generate sales and create jobs – a wheel that comes full circle and in turn generates more money for research.

Researchers need to learn not only to turn money into knowledge but also to turn knowledge into money! The Technology Park with its buildings on the campus and the existing infrastructure offers the best conditions for this. The BioRN Network e.V. lends further help by cultivating contacts to public funders in Germany and the EU and by liaising between industry, science, service providers, and local government. All the forces working for the region are involved.

So when young scientists come up with fantastic ideas, they should start by applying for public funding, secure patents where possible and appropriate, and subsequently show that their idea can be translated into practice! Many researchers had the courage to do this in the past and some were able to celebrate successes. I hope that the number of courageous and enterprising people will increase in the future."



Fig.26: Laying the foundation stone for construction phase 2, INF 515, in 1997



Fig.27: Building 515 in 2014

End of 1997

The Heidelberger Wirtschaftsentwicklungsgesellschaft mbH is founded to support business development and the Office of Business and Employment is dissolved. The City of Heidelberg and the Sparkasse Heidelberg reorganize their business development operations.

1998

— Fig.27

- On July 20th, Minister of Economics Dr. Walter Döring, Lord Mayor Beate Weber, and the investor Roland Ernst inaugurate the new Biopark building INF 515, built in the second construction phase and providing 4,500 m² of floor space with conference facilities and a bistro. The building is primarily intended to provide space for companies working in the field of “red biotechnology” and engaged in developing new drugs or platform technologies and conducting clinical and biotechnological studies or diagnostics.
- In view of continuing high demand, the Heidelberg City Council approves plans for a further extension of the Technology Park at the Neuenheimer Feld site. The ground-breaking ceremony is planned for August 1999 and completion for 2000.
- At the annual conference of the International Association of Science Parks (IASP) in Perth, Australia, Dr. Klaus Plate is elected Vice-President.

January, 1999

On January 21st, Baden-Württemberg Prime Minister Erwin Teufel visits the TP to learn about the financing and realization of project ideas in startups in the Rhine-Neckar Triangle BioRegion.

April, 1999

The City of Heidelberg is ranked first in a Focus magazine league table of cities promoting startups.

September, 1999

On September 26th, the bus and tram stop Blumenthalstraße-West is renamed Technologiepark.

October, 1999

On October 21st, German President Johannes Rau visits the TP.

December, 1999

Three years after winning the BioRegio competition the DM 50 million in funding from the Federal Ministry of Education and Research has been spent. A provisional assessment reveals that:

- The 35 projects funded out of this money have yielded 14 highly innovative biotechnology companies in the region focusing on molecular biomedicine and pharmacogenomics, bioinformatics, and new experimental technology in the field of “red biotechnology.”
- 330 highly skilled jobs have been created in these companies.
- The BioRegio funding has been matched by DM 45 million in private investment in R&D projects and at least DM 70 million in direct investment in startups. The capital provided by the federal government has thus resulted in a leverage factor of 2.3.
- Many other companies have emerged in the vicinity, e.g., service, marketing, and trading companies.

2000

After the Roland Ernst Group is declared insolvent it is replaced by Deutsche Real Estate AG as general partner.

February, 2000

On February 15th, a cooperation agreement is signed in Heidelberg City Hall with Laval Technopole (Montreal, Canada), a company likewise focusing on biotechnology and IT.

June, 2000

Construction of the largest extension project begins at the TP at the end of June. This is funded jointly by the State of Baden-Württemberg and the City of Heidelberg. The developer is a company set up by Deutsche Real Estate AG Hamburg and Sparkasse Heidelberg. The complex building housing laboratories and offices is constructed jointly by Bilfinger Berger AG, Niederlassung Mannheim Hochbau and Heberger Bau GmbH, Schifferstadt. On a 2.4-hectare site in the immediate vicinity of the existing buildings, five new buildings providing 30,000 m² of laboratory and office space are to be constructed, thus tripling capacity to more than 46,000 m².

July, 2000

At the World Conference in Edinburgh of the International Association of Science Parks (IASP), TP CEO Dr. Klaus Plate is elected President (2000-2002). The IASP now has 200 members. More than 40,000 companies work in the various science parks.

July 26th, 2000

On July 26th, LION bioscience AG is floated on the stock market, thus becoming the first company in the TP to be listed in the Neuer Markt index.

September, 2000

- The Center for Female Entrepreneurs at Hans-Bunte-Strasse 8-10 at Pfaffengrund offers women engaged in startups and young female entrepreneurs affordable premises, initially comprising an area of 300 m², and access to the TP network.
- Two new cooperation agreements are signed: at a conference of Latin American technology parks and startup centers in Panama City, Dr. Klaus Plate signs a cooperation agreement with Tecnoparque International de Panama on behalf of the TP. The EU provides several million euros in funding to convert the American military base on the Panama Canal into an international technology park. In addition, a cooperation agreement with the Shanghai Caohejing Hi-Tech Park is signed in Shanghai.

December, 2000

Of the 30,000 m² under construction in the third phase, 2,500 m² is still available for rent.

2001

Ernst & Young's European Biotech Report for the year 2000 ranks Germany, which has 332 companies whose main purpose is the commercial use of modern biotechnology, in the leading position in Europe. All of Germany's growth indicators are above the European average. It has seen:

- A 52 % increase in sales to EUR 786 million
- A 31 % increase in the number of employees to 10,673
- R&D expenditure has more than doubled, to EUR 719 million
- For the first time, German companies have acquired US and British biotech companies.
- Twelve German companies have floated on the stock market, including LION bioscience AG.

February 23th, 2001

Minister of Economics Dr. Walter Döring visits the site of the third construction phase together with prospective tenants.

March 18th, 2001

The foundation stone is laid for the new DKFZ building, which is part of the third construction phase at the TP. A further 6,000 m² of main usable space is planned.

May 2nd, 2001 — Fig.28-30

The topping-out ceremony of the third phase of construction is celebrated.

May, 2001

A cooperation agreement is concluded with the High-Tech-Park Jinan, which in turn has a cooperation agreement with the Indian Software Center in Bangalore.

September 11th, 2001

Klaus J. Sprockamp, Chief Financial Officer of LION bioscience AG, is killed in the terrorist attack on the World Trade Center in New York.

The subsequent crisis on the financial markets has an impact on the biotech sector in the Rhine-Neckar region and forces some companies to reduce their workforce or even to wind up their operations. Soon, however, the number of self-financed startups begins to rise again, demonstrating the strength of the region.

2002

An Ernst & Young study on the Technology Park is published.

October, 2002

Two further cooperation agreements: During a visit by the Mayor of Louisville, David Armstrong, an agreement is signed with the Louisville Medical Center, Kentucky, USA.

At the Biotech Forum in Malmö, Sweden, the TP agrees to cooperate with the Foundation for the Promotion of Cooperation between the University of Uppsala and Industry and Society (STUNS).

December, 2002

Heidelberg Technology Park is ranked as a world-class startup center. In a competition staged by the Dutch Science Alliance for the best Science Based Incubator, the TP comes twelfth out of around 70 outstandingly successful startup centers worldwide. (At the top of the league table is China's Tsinghua Pioneer Park in Beijing.)



Fig.28: Topping-out ceremony for construction phase 3 on May 2nd, 2001



Fig.29: Address by TP CEO Dr. Klaus Plate



Fig.30: Site of construction phase 1 at Neuenheimer Feld



Prof. Josef Puchta, Administrative-Commercial
Director of the German Cancer Research Center:

“Many spinoffs from the DKFZ, such as Apogenix, set up their operations in the Technology Park, because particularly in the early stages of company development it is crucial for them to remain close to research. The opportunities for direct exchange in the form of face-to-face meetings are therefore an important criterion. In that respect there is no other comparable biomedical campus in Germany. Both Munich and Berlin offer similar capacity, but the concentration of university and extra-university research, university hospitals etc. is not as focussed as it is here and in many cases larger distances have to be covered. I see the Skylabs in Heidelberg’s Bahnstadt as more suitable for companies that have already passed through the first phase and are entering the second phase. For spinoffs and companies in an early stage of development there should therefore be a moderate expansion of the Neuenheimer Feld campus.”

APOGENIX GMBH –

Apogenix started life in the fall of 2005 as a spinoff from the German Cancer Research Center (DKFZ) in Heidelberg and develops protein therapeutics that target critical pathways involved in the migration, growth, and apoptosis of diseased cells. It has developed a promising product pipeline currently consisting of two product candidates. Protein-based drugs offer a whole range of new possibilities for treating life-threatening illnesses, particularly cancer.

One candidate drug currently in the clinical development phase will potentially be used to treat patients suffering from glioblastomas. Apogenix is also developing a companion diagnostic to identify potential candidates for treatment. The candidate drug is also being tested in a clinical study as a treatment for myelodysplastic syndromes.

Since 2005, Apogenix has succeeded in raising more than 50 million euros in capital as well as approximately 8.5 million euros in public research funding, almost 5 million of which was granted as part of the Leading-Edge Cluster Competition initiated by the German Federal Ministry of Education and Research (BMBF). The company currently employs twenty-nine people at its Technology Park site.

December 10th, 2002

— Fig.31

Inauguration of the new DKFZ research building INF 580 in the third phase of construction at the Technology Park. The new five-storey building has around 7,200 m² of space for laboratories and offices and houses 16 research departments with 350 staff. The focus is on genomics research and bioinformatics.



Fig.31: New German Cancer Research Center (DKFZ) building INF 580 on the Technology Park campus

2003

- Despite the rather difficult overall situation in the biotechnology sector, only 8,500 m² of approximately 50,000 m² of space remains vacant. This means that space is available for companies at the TP to expand as well as for potential new companies.
- An agreement is signed with Qingdao Hi-Tech Industrial Park in China on cooperation in the fields of biotechnology and IT. The aim is to strengthen cooperation with leading Chinese technology centers.

July 18th, 2003 — Fig.32-34

The completed third phase of the TP is officially opened with a celebration attended by 350 prominent figures from science, industry, and politics as well as the new tenants. Laudatory speeches are given by Lord Mayor Beate Weber, State Secretary of the State of Baden-Württemberg Dr. Horst Mehrländer, President of the Rhine-Neckar CIC Hubert Eirich, Director of Bilfinger Berger AG Hans Helmut Schetter, Director of Deutsche Real Estate AG Busso von Alvensleben, and TP Director Dr. Klaus Plate.

This is the largest biopark expansion in Baden-Württemberg and the largest extension of the Technology Park since it was founded. As in the first two phases of construction, the costs amounting to EUR 58.8 million are financed by private investors, in this case Technologiepark II GmbH & Co. KG – a subsidiary of Sparkasse Heidelberg – and Deutsche Real Estate AG, which is also in charge of managing the properties.

On the site leased from the city the four buildings INF 581 to INF 584 with around 24,500 m² in laboratory and office space were constructed. The State of Baden-Württemberg provides EUR 1.9 million in funding for young biotech companies moving into the new buildings in the form of a rent subsidy fund.

The official opening of the third phase of construction also includes the ground-breaking ceremony for the “Forum” communications center. This is designed to further improve the infrastructure of the TP and to provide conference facilities for 120 people and a public restaurant. The Forum is intended to be an informal communications center for all those connected with the Technology Park.

2004

- Ernst & Young’s Biotech Report 2004 contains a supplement featuring the Technology Park. It reports dynamic growth in the Heidelberg area. There are 31 core companies employing 1,100 staff specializing in R&D, 27 service providers employing 460 staff, and a further 30 biotech companies employing 300 staff.
- At the international biotechnology conference Saudi Bio 2004 in Jeddah, Saudi Arabia, a cooperation agreement is signed with Jeddah Bio City. The same year, TP agrees to cooperate with Parc Cientific de Barcelona. Furthermore, an agreement is concluded on mutual exchange and joint utilization of patents between TP GmbH, EMBL Enterprise Management Technology Transfer GmbH (EMBLEM) and San Raffaele Biomedical Science Parc Milan. The agreement regulates cooperation between the partners with respect to new technologies, their dissemination in the respective networks, and commercialization of any resulting intellectual property rights.

To date the TP has concluded cooperation agreements with 15 technology centers in China, the UK, France, India, Italy, Canada, Panama, Saudi Arabia, Sweden, Singapore, Spain, and the United States.

The timeline continues on p.34



Fig.32: Building 582, part of construction phase 3



Fig.33: Building 581



Fig.34: The Technology Park restaurant complex with cafeteria and DKFZ canteen



A Reliable Partner for 30 Years

Bernd Wochele, Deputy Director of the Sparkasse Heidelberg

What was the crucial factor in the Sparkasse Heidelberg's decision to play an active role in the Technology Park?

The Sparkasse Heidelberg has always been a farsighted and significant partner for individuals, business, and local authorities. It therefore took a very positive view of the idea of a Technology Park right from the start, even though back in the 1980s the bank was definitely entering new territory in becoming involved with cutting-edge technologies such as biotechnologies.

In accordance with our public mandate, our goal even then was to support the regional economy and to create new jobs and new development potential for the entire region. The framework conditions set by public authorities made it possible to set reasonable rents and thus to create favorable starting conditions for technological startups.

The Sparkasse participated as a limited partner in the holding company founded to implement the first phase of building in 1984. The Technology Park grew rapidly, with two additional phases of construction to meet strong growth in demand from prospective tenants.

The third phase was largely established on the market by 2005 and we then had the opportunity to take over the holding company entirely. One reason for doing so was to help safeguard the Technology Park's continuing existence and functionality. Another was the increasing requirement for capital for ongoing investment, especially in high-quality laboratories, to improve the Technology Park's competitiveness. This led to almost full occupancy, a situation that continues to this day.

The Technology Park's occupancy rate is also due to close collaboration with the German Cancer Research Center (DKFZ) and the University Hospital, as these two institutions continue to accommodate spinoff companies in the Technology Park or concentrate individual research institutes there.

However, the Technology Park's main occupants are small and medium-sized startups. Many are so successful that they either merge with large companies, including some with international operations, or go on expanding in other locations. This creates space for new startups at the Technology Park.

All this fits optimally with the philosophy of a municipal savings bank and its orientation toward small and medium-sized enterprises.

What do you see as the key to success in the Technology Park concept?

One key to the Technology Park's success is certainly the courage and far-sightedness shown by its initiators and their many partners in supporting this project

long term and thereby helping a still relatively young sector of the economy to develop successfully.

The Sparkasse Heidelberg as landlord contributes toward this successful concept by responding very flexibly to its tenants' needs. This means trying to satisfy their requirements as regards size and equipment as far as possible so as to provide ideal working conditions. We thus support the development of individual startups as it were from "one-room enterprise" to large laboratory unit.

One very important ingredient in our recipe for success is continual improvements to infrastructure. The Conference Center and restaurant, for example, enable the Technology Park to offer optimal standards for conferences and catering.

We have not only made the Technology Park a place for research and networking, but also support the communication facilities required. What is more, with the integrated kindergarten Beruf und Kind we ensure that working in the Technology Park can be compatible with family life. This was a very significant upgrade to the TP's facilities.

In addition, the ExploHeidelberg exhibition, which has attracted a great deal of attention, offers children and young people the opportunity to engage actively with modern science.

We at the Sparkasse Heidelberg are pleased to be involved with the Technology Park and see the feedback on our activities received from diverse quarters as endorsement of our decisions.

How do you envision the future of the Technology Park?

The Technology Park in Neuenheimer Feld is a byword for future-oriented thinking and action, not only in Heidelberg but also far beyond the city's borders. As its owner and landlord we will therefore continue to take great pains to ensure that both current and future tenants find at the Technology Park ideal and individual spatial conditions and infrastructure to meet their requirements.

Heidelberg is growing, especially as a location for science and technology, so the demand for premises in the Technology Park is still high. That is why, in respect of our involvement, we look to the coming period with optimism.

The future of the Technology Park in general depends mainly on developments in the years ahead, not least on whether the existing (and any new) technology sites in the city can be networked. That is all the more important in that we expect it to provide further major stimuli.

2005

After the insolvency of Deutsche Real Estate AG, Sparkasse Heidelberg, which already had a 51 % stake in the companies owning the TP properties, takes over the Deutsche Real Estate AG shares and hence its status as general partner. It is now the sole partner in Technologiepark Heidelberg I und II GmbH & Co. limited partnerships and owner of the properties at the Neuenheimer Feld site.

RN Immobilienmanagement GmbH Rhein-Neckar (RNI), a subsidiary of Sparkasse Heidelberg with its headquarters at the TP, now becomes the body responsible for building rental and management. The directors are Bruno Fertig and Bernd Wochele.

October 17th, 2005 — Fig.35

The TP Environment Park, a Center for Environmental Technology and Environmental Management located in the former Heinsteinwerk factory building (a listed building) in Heidelberg-Wieblingen, is officially opened by Mayor for the Environment Dr. Eckart Würzner and Ministerialdirektor Dr. Friedrich Bullinger of the Baden-Württemberg Ministry of Economics. The investor and developer is Hans-Jörg Kraus of Kraus Immobilien Heidelberg, who sees realization of the project as a further example of how environmentally-oriented construction and modern utilization can be combined in the course of regenerating an industrial site.

With this project the City of Heidelberg has developed a central location for companies working in the fields of environmental technology and energy, offering them optimal opportunities for research, development, and cooperation. Organizationally the Environment Park comes under the umbrella of the TP. The tenants are members of the TP, can use its facilities and services, and are integrated in its regional, national, and international networks. A total of 1,700 m² of office and laboratory space is available. Initially, six companies and institutions with around 60 staff move into the premises.

Altogether the TP sites Im Neuenheimer Feld, Czernyring, Hans-Bunte-Straße, and the Environment Park in the Heinsteinwerk offer a total of 50,000 m² of space.

2006

- The Gründerverbund Heidelberg is established to work together with Heidelberg University, the University of Applied Sciences, the DKFZ, EMBL, CIC, and TP to support new startups.

The Technology Park and the entrepreneurs' network Heidelberger Gründer-Team launch an initiative to give financial and practical support to high-tech startups by identifying and evaluating business ideas and securing initial financing. The TP maintains an additional fund for early-phase companies.

- As cooperation with international organizations expands, cooperation agreements are signed with the Smales Farm Technology Office Park in North Shore City, Auckland, New Zealand, with the Russian consortium BIOMAC, Moscow, and with the Suzhou Innovation Park, China. To date the TP has 22 sister parks in Europe, Asia, and America. An international profile is one of the biggest assets for an economic location in the global competition between scientific and economic regions as well as an important factor influencing the competitive position of companies in the life sciences sector. For this reason the TP is also a founding member of the Council of European BioRegions (CEBR), in which the leading European bioclusters from Barcelona to Uppsala work together.

March, 2006

The newly opened daycare center "Die Wichtel" in building INF 583, run by Beruf und Kind e.V., offers daycare facilities for children from the age of six months until they go to school. Initially there are 35 places in three groups.

April, 2006 — Fig.36-37

The new TP Conference Center in INF 582 has five air-conditioned conference rooms equipped with state-of-the-art presentation technology for 10 to 120 people. The foyer offers space for breaks, receptions, and small exhibitions.

August 1st, 2006

The painter Wassili Lepanto holds a vernissage at the Conference Center, initiating a tradition of regular art exhibitions at the TP staged under the slogan "Art Meets Science."

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Fig.35: The former Heinsteinwerk factory building in Heidelberg-Wieblingen



Fig.36: Conference Center in building INF 582

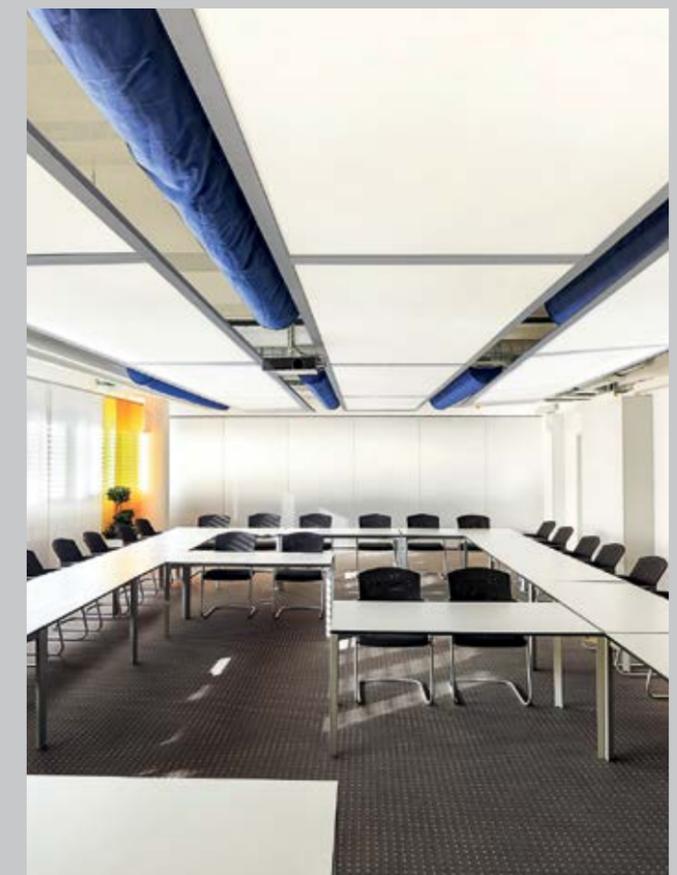


Fig.37: Conference Center in building INF 582



Industry and Science – The Heidelberg Model “Industry on Campus”

Prof. Dr. Bernhard Eitel, Rector of the Ruperto Carola University of Heidelberg

As a comprehensive university Ruperto Carola seeks to make its research findings socially relevant. Translating the findings of fundamental research into the development of innovative products is the key to prosperity in modern industrial societies. Cooperation projects with industry thus offer benefits to both sides and are an important part of the future concept of Heidelberg University’s Excellence Initiative. They enable companies to gain swift access to the most recent research findings, and scientific innovations can quickly be utilized. Working together with industry is relevant for our students, too, because through this channel we can communicate clearly to industry that Ruperto Carola produces first-class graduates.

What does cooperating with industry mean in practice?

Our successful format is “Industry on Campus” under which Ruperto Carola enters into longer-term joint fundamental research projects with industry. The resulting synergies enable knowledge to be shared more easily. Particularly in the natural and information sciences this kind of cooperation is a fruitful form of partnership.

In our Catalysis Research Laboratory (CaRLa) – regarded internationally as a prototype of successful cooperation between industry and academia – application-oriented researchers from BASF are working together with university researchers on a molecular catalysis project in a laboratory at the Technology Park.

The goal of the Heidelberg Collaboratory for Image Processing is to find solutions to underlying problems of image processing and to translate these into applications. This interdisciplinary facility is the largest center of its kind in Germany and is regarded as a kind of image-processing “think tank.”

Other successful Industry on Campus projects include the research and transfer platform InnovationLab and the Nikon Imaging Center, devoted mainly to light microscopy.

What kind of contacts are there between industry and research above and beyond “Industry on Campus”?

The university is participating in two leading-edge clusters of the Federal Ministry of Education and Research in the Rhine-Neckar region. In the Rhine-Neckar Biotechnology Cluster (BioRN) companies are working together with universities and research facilities to develop drugs, technology platforms, and diagnostics in personalized medicine and cancer research. The partners in the Cluster Forum Organic Electronics are developing new materials, designing systems, and marketing applications in the field of organic electronics.

What role does the Rhine-Neckar Metropolitan Region play in the links between industry and science?

The Rhine-Neckar region has a high concentration of private companies and research facilities with strong development potential. Together with the university they form an internationally competitive network that offers a whole range of opportunities for contact and cooperation. We intend to consolidate these contacts and expand them continuously.

The Technology Park with its concentration of high tech and research is a major forum for cooperation and also an important partner for the university’s start-up management. Ruperto Carola is also part of the Rhine Neckar Triangle BioRegion, an association for strengthening biotechnology.

November, 2006

The TP Casino with a canteen and bistro in the new INF 585 building begins operations and is officially inaugurated at the Christmas party on December 15th. It is a one-and-a-half storey glass building and accommodates approximately 100 people, with seating for an additional 40 people in the cafe. It also has a terrace for use during the summer months. The Casino is to become an important communication point in the TP community.

2007

- Since 1985, approximately EUR 80 million has been invested. The TP is thus the largest privately financed and operated science park in Germany.
- The INF 581 building comprising approximately 11,000 m² of built space is sold to the DKFZ, but in terms of its designated purpose remains part of the TP. The sale of the building makes sense, given that the entire premises were rented to the DKFZ.
- The Technology Park web portal is now up and running, facilitating management of the Conference Center and access to tenants and associated members via the contact database.
- The TP offers car-sharing in cooperation with Stadtmobil Rhein-Neckar AG.

November, 2007

The Office for Business Development and Employment of the City of Heidelberg is set up following restructuring of the city administration by Lord Mayor Dr. Würzner. Ulrich Jonas is appointed to head the office. Its future focus will be on SMEs and the retail sector as well as on consolidating international relations via the TP.

December, 2007

- Nineteen architects' bureaus from all over Germany submit entries for the architectural competition to design the fourth phase to be erected on the triangular site on Berliner Strasse. This will have 7,250 m² of gross floor area.
- The Metropolitan Region gets its own share index on the Stuttgart stock exchange: The S-Box-Metropol-region Rhein-Neckar Performance Index lists the 15 largest shareholding companies in the region, including Sygnis Pharma from the TP.

2007/2008

At the turn of the year, the Heidelberger Wirtschaftsentwicklungsgesellschaft mbH is dissolved. TP GmbH takes on HWE staff who previously provided services for the TP and establishes a campus bureau in the INF 582 building.

2008

TP Heidelberg I GmbH & Co. KG and TP Heidelberg II GmbH & Co. KG are merged as Technologiepark Heidelberg II GmbH & Co. KG

February, 2008

At the Bio Asia 2008 fair in Hyderabad, India, TP CEO Dr. Klaus Plate and Prime Minister of the State of Andhra Pradesh, Dr. Y.S. Rajasekhara Reddy sign a letter of intent.

March, 2008

In the Leading-Edge Cluster competition staged by the Federal Ministry of Education and Research the biotech cluster "Cell-based & molecular medicine in the Rhine-Neckar Metropolitan Region" reaches the final round.

June, 2008

At the BIO 2008 in San Diego, USA, the TP presents its International PartnerPort program. This offers companies or institutions the chance to use an office in one of the partner parks free of charge and to make contacts and receive as much support as possible. This enables companies to become "insiders" within a very short time, putting them in a position to decide whether to relocate or to enter into a local cooperation agreement. The office and service in the Heidelberg TP are provided free of charge to partners for a period of three months.

September, 2008

On September 2nd, the winners of the Leading-Edge Cluster competition are announced. The five winners out of 38 contestants in Germany include both entries from the Rhine-Neckar Metropolitan Region, along with the BioRN cluster Cell-based and Molecular Medicine, which entered the competition in the Life Sciences and Health category. This category received entries from a large number of biotech and pharmaceuticals companies, research groups and around 100 partners from research, industry, and politics in the region. Funding of EUR 40 million awarded for a period up to 2013 is earmarked to finance the

development into industrially marketable products of 70 new drugs, diagnostics, and technology platforms as well as 20 innovative services in the field of cell-based and molecular medicine in the Metropolitan Region. This will secure 400 highly qualified jobs in R&D and create a further 4,000 jobs by 2018.

The winners also include the cluster Forum Organic Electronics, organized and supervised by Heidelberger Innovation Lab GmbH. This makes the Rhine-Neckar region Germany's number one innovation location.

After winning the competition, the BioRegion Rhein-Neckar-Dreieck e.V. jointly with Heidelberg Technology Park founds BioRN Cluster Management GmbH, which assumes responsibility for coordinating projects in the biotech cluster. The TP subsidiary is also supported by the Rhine-Neckar CIC and the Rhine-Neckar Metropolitan Region (e.V. & GmbH).

October, 2008

The Heidelberg virologist and former CEO of the DKFZ Prof. Dr. Harald zur Hausen is awarded the Nobel Prize for medicine. His discovery that cervical cancer is triggered by viral infections enables a vaccine to be developed.

November, 2008

The TP hosts the BioEurope conference, once again bringing 2,500 biotechnology specialists to the Rhine-Neckar BioRegion. In cooperation with the City of Heidelberg and the City of Mannheim the events are organized in the Heidelberg Stadthalle and the Rosengarten Congress Center in Mannheim.

2009

The Berlin architects Machleidt+Partner win the competition staged by the City of Heidelberg for the design of Campus II in the Bahnstadt neighborhood. A new research and business location begins to take shape in Heidelberg. On a 20-hectare site the concept combines mixed residential and commercial accommodation with an excellent infrastructure and is directly adjacent to Heidelberg's main station. The focus is to be on high-tech, so it will be an extension of the Czernyring site at the TP.

Having purchased part of the building plot the Max-Jarecki-Stiftung, a charitable trust, is to build the first multi-functional complex of buildings providing 19,500 m² of floor space.

April, 2009

In the presence of Lord Mayor Dr. Eckart Würzner, the TP signs an international cooperation agreement with the Centre of Excellence for Applied Research and Training, V.A.E. (CERT) in Abu Dhabi.

2010

— Fig.42 / P.42

In Beijing a cooperation agreement is signed with the Tsinghua University Science Park (TusPark).

April 1st, 2010

Dr. André H. R. Domin succeeds Dr. Klaus Plate as CEO of Technologiepark Heidelberg GmbH.

May 20th, 2010

On May 20th, the ground-breaking ceremony is held on the Bahnstadt site for one of the first SkyLabs research and laboratory buildings, in which SkyLabs S.à.r.l. as developer invests EUR 60 million. On a 7,400 m² building plot, 19,500 m² of state-of-the-art office and laboratory space is to be built. The building, designed by the Mannheim-based architects Fischer Architekten GmbH, is striking and has an intelligent and flexible interior design. It is intended to provide space for innovative companies from the fields of biotechnology, information and communications technology, and energy and environmental sciences.

OCTAPHARMA BIOPHARMACEUTICALS GMBH –

In 1983 Wolfgang Marguerre, a native of Heidelberg, founded the company that is now Octapharma AG with the goal of developing and producing drugs from human plasma to allow patients with life-threatening illnesses to lead more or less normal lives. Originally the company focused on the treatment of hemophilia but later expanded its portfolio to include intensive care medicine and immunology.

To ensure comprehensive coverage the company has in the meantime established fifty-four plasmapheresis centers all over the world, nine of them in Germany, under the umbrella of the German Society for Human Plasma. The plasma is processed into medical preparations at four production facilities in Germany, Austria, France, and Sweden.

The company now has more than 5,000 employees working in over eighty countries to continually improve the efficacy, safety, and handling of its products.

Octapharma AG was the first company in the world to introduce the solvent/detergent method for deactivating viruses during the industrial production of plasma preparations.

Octapharma Biopharmaceuticals GmbH was originally founded in 1997 in Martinsried, near Munich, under the name Theragene with the goal of finding better ways to manage haemophilia. The company relocated to Heidelberg Technology Park in 2012. Octapharma is one of the first companies to investigate the use of a human cell line to produce therapeutic coagulation proteins with the aim of manufacturing drugs that resemble the physiological original in plasma as closely as possible in terms of structure, efficacy, and tolerability.

The company's seventy employees value the Heidelberg location for its optimal research infrastructure. The perfect combination of opportunities to cooperate with the university and local companies, an innovative environment, and a family-friendly, liveable city meet all the requirements of a high-tech company.



Wolfgang Marguerre, founder, CEO, and Chairman of the Board of Octapharma AG, responds to the question why he chose Heidelberg as a location for the research activities of Octapharma Biopharmaceuticals GmbH:

“Faced with the decision of whether to stay in Munich or relocate, Heidelberg presented itself as the ideal location for expanding and reorganizing Octapharma, because it really has a name in the field of biotechnology and is a very suitable place for carrying out medical research. The proximity to R&D at the Neuenheimer Feld site, whether in academia or in the SMEs at the Technology Park, was an important criterion in our choice of location. This enabled us to expand and deepen our cooperation with the immunological faculty. The proximity to the university with its academic environment also means that it is no problem at all to find qualified staff locally. Given these optimal conditions we chose our premises with a view to growth.”

July 8th, 2010 — Fig.40

The foundation stone is laid for the fourth construction phase of the Technology Park. Octapharma AG invests more than EUR 25 million in a new building on Berliner Strasse. The Heidelberg-based architects Bert und Björn Burger are charged with realizing the project.

April, 2011 — Fig.38-39

Two years after the start of construction Octapharma Biopharmaceuticals GmbH moves into the new INF 590 building and opens its new research center on the site of the fourth phase of the Technology Park. The 10,000 m² premises provide space initially for 46 and later for 100 Octapharma employees.



Fig.38: New Octapharma building on the Technology Park campus



Fig.39: The Octapharma building at Neuenheimer Feld



Fig.40: Wolfgang Marguerre, Dr. Klaus Plate and Mayor Dr. Eckart Würzner lay the foundation stone for the new Octapharma building



Fig.41: Representatives of the Rhine-Neckar Biotech Cluster at BIO 2010



Fig.42: Signing the cooperation agreement with TusPark Beijing in 2010



Fig.43: CEO Dr. André Domin (r.) at the 2013 Bio Breakfast



Fig.44: SkyLabs in Heidelberg Bahnstadt



Fig.45: Aerial view of Heidelberg Bahnstadt in 2013

2011

BioRegion Rhein-Neckar-Dreieck e.V. (BioRN Network) formulates its future strategy in its Agenda 2020. This foresees the regional research scene redoubling its efforts to boost the region's economic power even more effectively. This will involve promoting regional and supraregional innovation transfers, expanding the R&D infrastructure, and concluding international partnerships.

December, 2012 — Fig.44-45

Official inauguration of the SkyLabs. Schiller International University becomes the first tenant.

BIO 2013 — Fig.43

Dr. André Domin and David Baker from the Illinois Institute of Technology, Chicago conclude a cooperation agreement in the presence of Rita Athas, President of the World Business Chicago Association and Dr. Ralf Kindervater of BIOPRO Baden-Württemberg.

October 9th, 2013

In Heidelberg City Hall Lord Mayor Dr. Eckart Würzner and Mayor Scharff of Palo Alto, USA, sign the Smart Cities Alliance cooperation agreement, which provides for cooperation in industry, research, and the environment.

April 1st, 2014

Glycotope acquires further space at the Czernyring site.

Having acquired the biotechnological facilities and know-how of ORPEGEN Pharma in 2008, Glycotope founds Glycotope Biotechnology GmbH in Heidelberg. In the years that follow the Strüngmann brothers invest double-digit millions in GMP production at the Czernyring site, thus enabling a major expansion of production capacity and personnel. Today Glycotope employs more than 150 staff in Berlin and Heidelberg and with the acquisition of additional space at the Czernyring site is clearly geared toward growth in Heidelberg.

2014

— Fig.46

US troop withdrawal complete –
redevelopment sites to be integrated.

The withdrawal of the US forces from the Rhine-Neckar region is now complete. Eight thousand members of the US army and their families have vacated their temporary home in Heidelberg, leaving behind around 180 hectares previously used for military purposes – an area roughly twice the size of Heidelberg's historic center. These redevelopment sites offer enormous potential for future growth in a city whose attractiveness as an R&D, education, and business location make growth practically a foregone conclusion.

In Heidelberg's new Bahnstadt district, one of Germany's largest urban development projects, a conversion site covering an area of 116 hectares was recently successfully redeveloped in a very short space of time, thus providing a model for what might be done with areas formerly occupied by the US armed forces. In what is known as Heidelberg's fifteenth district not only will housing be built for around 5,000 people but also top-flight facilities for science-based institutions, research companies, and other firms. These include easy access to the city center, the station, and the free-way as well as convenient and generously dimensioned office and laboratory space for around 7,000 employees in the world's largest passive house settlement.

The areas vacated by the US forces will likewise allow Heidelberg to tackle the pressing issues of housing and business, providing the space to build new housing for the city's steadily growing number of students and young families. Building housing in direct proximity to first-class employment opportunities will be a living example of the motto of Heidelberg's international building exhibition, the IBA: "Knowledge-based Urbanism."

Attractive concepts for the redevelopment areas are currently at the planning stage. Because of the specific purposes for which they were used by the Americans, there are big differences between the various parts of the site. Patrick Henry and Mark Twain Village, for instance, were founded as residential areas with a good social infrastructure that includes schools, kindergartens, and sports facilities. Campbell and Patton Barracks, on the other hand, consist mainly of military buildings. The US hospital and airfield are likewise geared to their particular use in terms of building structure and type.

Areas used for military purposes that are unsuitable for subsequent civilian use are available as redevelopment sites for industry. Here, first-class employment



Dr. Martin Raditsch,
Business Director of InnovationLab GmbH:

"There is no question that Heidelberg is an outstanding research location that continually generates new knowledge and creative young people. The trick is to keep this knowledge in Heidelberg. In this respect the Technology Park must be seen as a funding measure by the city for the city, because it functions as a magnet and keeps young scientists from moving to other cities. Without an institution like the Technology Park startups in Germany hardly have a chance. It has succeeded in keeping expertise at this location and creating jobs.

We ourselves are planning to expand cooperation. In the future the Technology Park will not only be a center of gravity for biotech, but will also acquire a further area of specialization – organic electronics. Heidelberg needs a knowledge workforce – so the Technology Park is taking the right action."

opportunities can be created with links to the excellent research and teaching at the university and other top international research facilities and that pursue the goals of BMBF excellence clusters or other global consortia. Heidelberg will thus be able to secure further segments of knowledge-based industry and value chains – in keeping with the motto "Knowledge-based Urbanism."



Dr. Gerhard Vogel, President of the Rhine Neckar Chamber of Industry and Commerce, responding to a question about future spatial development of the Technology Park:

"The Technology Park is increasingly reaching its limits at the current site, so we believe that it will be very important to secure additional sites for these conceptual considerations. In our view, redevelopment offers a unique opportunity here. In particular, we see the Patton Barracks/Motorpool site as ideal, given its location at the center of the research facility, its good transport connections, and its previous commercial use. The idea of an innovation and production park on this site could give the City of Heidelberg an excellent impetus and development opportunities in these important market segments. These areas within walking distance of the InnovationLab could offer ideal prospects, most especially for the leading-edge cluster Organic Electronics. The federal government has stated in its coalition agreement that local government will be able to count on a certain degree of support with respect to major redevelopment issues. Once these ideas become more concrete they could support the construction of an innovation and production park in Heidelberg. So we are looking to expand the Technology Park and encourage growth at a further new location, namely, the Patton Barracks/Motorpool site."

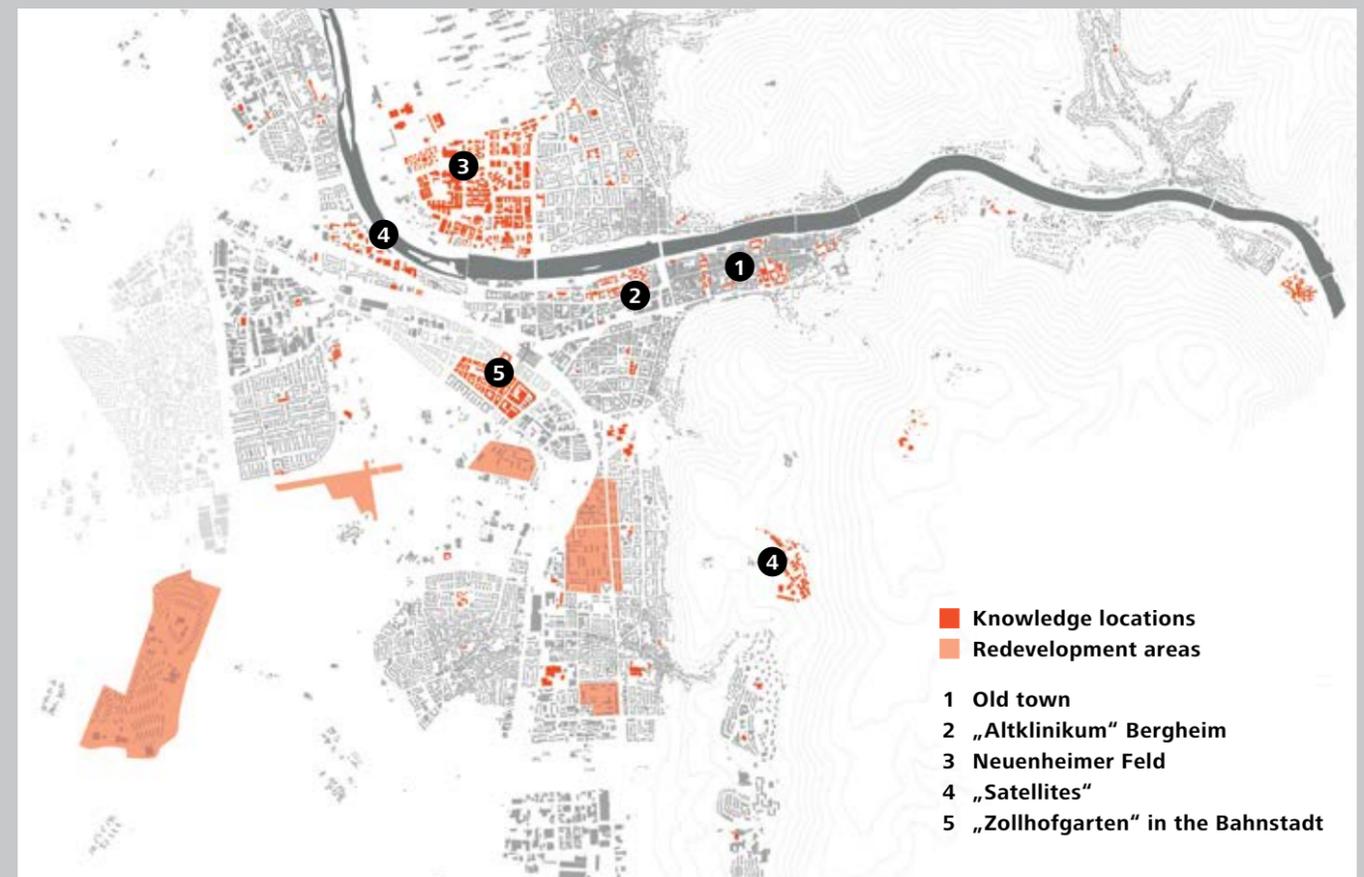


Fig.46: Redevelopment areas and knowledge locations in Heidelberg



The Future of Heidelberg Technology Park”

Perspective by Dr. André H.R. Domin,
CEO of Technologiepark Heidelberg GmbH

Whether they be startups or more mature companies, high-tech ventures continue to face huge challenges. In industrialized nations seeking to maintain a competitive technological edge the value chain starts with the founding of potentially promising startups. Provided these are successful, inventions and investments in high-tech startups promise extremely high yields, little competition, and a long-term unique selling proposition. However, it must also be said that the more unique a molecule, a surface structure, a mode of action, or a technology, the more uncertain are commercial viability and yield. As a rule, a loan from a local bank is not an option for a high-tech startup with a funding requirement of several million euros, because of the high risk and absence of securities. At the same time, venture capitalists and large corporations involved in marketing often find it hard to filter out the most promising ideas and teams from the huge number on offer. To avoid making bad investments they therefore require evidence of functionality and efficacy. The resulting funding gap in the initial phase can in most cases be bridged through public financing (e.g. EXIST-, GO Bio). However, as companies develop and move closer to market launch, it is not usually possible for the public sector to fund the subsequent phase of a startup to an adequate extent because of the danger of market distortion. Yet the risk that young, growing high-tech companies will fail is high, so in this phase, too, investors tend to shy away from committing funds, and a significant proportion of such companies withdraw from the market at an early stage.

The requirements new products have to meet to fulfil the continuously rising standards of modern industrialized societies are growing every day and with them the amount of time and money needed for research, development, testing, and licensing. To rise to this challenge and bring inventions to the market, increasing numbers of consortiums comprising representatives of various interests are being established with the shared goal of financing innovations successfully. It is precisely in this area that Heidelberg Technology Park plans to further step up its involvement and positioning.

Sharing the Risk – Celebrating Achievements Jointly

Heidelberg Technology Park has set up a large variety of networks and associations, including Heidelberg Start-up Partners, which supports local startups. These, along with seed and corporate funds, play a key role in forging connections between players in knowledge-based value chains. Future achievements are most likely to be celebrated in places where academia and industry work together in a friction-free atmosphere, establish cooperation projects based on trust, and pool their intellectual resources in the pursuit of common goals. The high-quality, cost-intensive infrastructure at the Technology Park is thus matched by the partners’ know-how.

The modern Technology Park will thus almost certainly remain geared to sector-specific requirements. Above all, however, it will continue to be a hub and communication platform for researchers, young entrepreneurs, financiers, and global market leaders.

The Technology Park will also continue to facilitate cooperation between researchers and SMEs as well as major concerns by providing *neutral* spaces into which the partners can bring their own expertise and staff and pursue projects currently outside the main focus of an institute or an existing industry portfolio. This process of interdisciplinary exchange – a new form of cooperation at Heidelberg Technology Park – is designed to optimize technology transfer between the partners and generate innovative products and ideas. It will become increasingly important, providing a third alternative to the current either/or situation, whereby new ideas either have to leave academia in the form of spinoffs or else the R&D department remains in house.

The Technology Park will create this desired neutral space for academics and company staff to fill with their own special equipment and the requisite software, working in an interdisciplinary fashion to generate something new. Ultimately, there are two critical success factors: that the best heads come together to generate new ideas and

BIOMED X GMBH – product-oriented research

BioMed X GmbH, founded in March 2013 by Dr. Christian Tidona, represents a completely new form of cooperation between academia and industry. It runs the BioMed X Innovation Center, where outstanding young life scientists from all over the world are working together in a research laboratory on solutions to pre-clinical lines of enquiry from the pharmaceuticals industry.

The interdisciplinary research teams consisting of up to eight people are financed entirely by a sponsor from the pharmaceuticals or biotech industry for projects running for between two and four years. The sponsor also determines the researchers' lines of enquiry. Teams are led by a number of mentors from research and industry consisting of a team coach, a professor from the University of Heidelberg, and a representative of the sponsoring company. Besides carrying out experimental research and being given the opportunity to publish

their findings in research journals, researchers also attend a Mentoring, Management and Entrepreneurship Training Program enabling them to consider new professional development paths taking completely different directions from a traditional academic career. Successfully completed projects may be adopted by an industry partner or transferred by BioMed X into its own startup company.

With its international network and the necessary infrastructure the Heidelberg Technology Park is the optimal partner for this business model.

A first partner, Merck KGaA, based in Darmstadt, has already been found and will participate in a project focusing on cancer research. For many other companies, too, pursuing research at the interface between academic biomedicine and the pharmaceuticals industry represents a unique, product-oriented innovation model.

that rights of use are clearly stipulated in advance so that all those involved benefit. If this gives the researchers involved not only the opportunity to publish their findings but also to become acquainted with the world of business or, in the medium term, to assume positions of responsibility in one of the participating companies, then we will have created a degree of freedom and latitude at the interface between fundamental research and industry of a kind that has seldom existed to date. Above all we will have reduced the distance between academia and industry and fostered technology transfer.

In the United States and Israel incubators – created by research institutions, local government, powerful major concerns, or the finance industry – have become professionalized over a period of decades. The research institutions often have the ideas and they support professional searches for commercially viable products in their institutes, employing qualified professionals to secure intellectual property. Alongside the goal of selling intellectual property via licenses, they examine and support spinoffs and product ideas in incubators, bringing in suitable partners, investors, mentors, and market experts.

The level of investment required by these strategically oriented consortiums can be minimized via synergy effects, such as sharing space and equipment, having projects professionally managed, and supporting several teams simultaneously. Other benefits likely to raise the chances of success dramatically include the joint evaluation of research findings, the patenting of intellectual property by patent attorneys with market experience, targeted product development and testing, building suitable teams, and professional marketing. The inevitable trend toward more cooperation within the value chain is thus likely to become more marked in the future. The term “fully integrated ma-

ior concern” will acquire new significance against a background of rising costs and the resulting efficiency drive. In other words, pooling resources to minimize risk will become the state of the art, for only this approach will enable all partners in the value chain to become truly integrated. The profits yielded will be recycled in a revolving process to refinance further yields, research, infrastructure, securing of intellectual property, and management.

What this tells us is that only those prepared to make a contribution, to assume some degree of risk, and to become actively involved in a network can shape the scope and direction of things to come and share in successful outcomes. The prospects are great and the opportunities ample for all those engaged in actively supporting startups and high-tech, be they local government, SMEs, major concerns, or financiers.

Heidelberg Technology Park is internationally renowned as a lively network of experienced professionals and as a breeding ground for creativity. What began thirty years ago as a real estate project has since become a role model for the translation of research findings and a catalyst between academia and industry. Currently, the sites available for conversion offer a redevelopment potential that can be tapped at precisely the right point in time. I am therefore convinced that Heidelberg Technology Park and Heidelberg as an attractive business location offer tremendous opportunities that we will continue to exploit with the same sense of purpose as we have in the past. With all this in mind, I look forward to working together with you in the coming years.

Dr. André H.R. Domin

CEO of Technologiepark Heidelberg GmbH

Heidelberg Startup Partners

Supporting hightech startups and spinoffs

Startups save lives! Not every life and not straight away. But for research findings from the life sciences startups provide a chance to overcome the many obstacles on the thorny path from laboratory to bedside.

Science and industry exist cheek by jowl, yet the jobs of leading a research project and managing a company could hardly be more different. Researchers who decide to shoulder the task of turning their inventions into products or services themselves are often forced to leave the comfort zone of their education and prior experience.

Before theoretical insights into the properties of a cluster of cells running wild can be transformed into a treatment for cancer, many steps are necessary. They include putting together a team, founding a company, and constantly applying for new funding. After all, startups in the life sciences are often costly undertakings, and developing new products or methods is a lengthy and risky process. Yet at the end of the tunnel, it is not only the prospect of making money that beckons but also the opportunity to do a great service to humanity.

Startups continue to be an engine of innovation for the region and a supplementary funding option for research facilities. The latter are as a rule the primary investor, securing expensive patents as a precondition for commercial exploitation of their inventions and sharing in the commercial success of those inventions via license fees.

All reason enough to support science and technology startups. Heidelberg Technology Park has been doing precisely this for thirty years now, by providing office and laboratory space at its Neuenheimer Feld site. Small rental units, an infrastructure tailored to tenants' needs, and subsidized rents give up and coming small companies the opportunity to locate to Heidelberg's life science campus in direct proximity to research and educational institutions.

Since 2013, Heidelberg Technology Park has also been home to the Gründerbüro or Startup Office of the Heidelberg Startup Partners, an association of prestigious re-

search and education institutions that also includes the Rhine-Neckar Chamber of Industry and Commerce and Heidelberg Technology Park. The Gründerbüro offers a one-stop-shop service for startups und spinoffs and at the same time is able to draw on the resources of a large network of internationally renowned institutions: partners include the German Cancer Research Center and the European Molecular Biology Laboratory alongside Heidelberg University and its Medical Faculty.

Whether it is a student looking for a sounding board for his or her business idea, a researcher preparing to found a capital company, or an existing company struggling to find additional financing, the Gründerbüro's interdisciplinary team devotes itself exclusively to providing practical support for startup teams and young entrepreneurs. Programs embracing more than one institution also make it easy for budding entrepreneurs to share their experiences.

The range of services on offer are as varied as the issues about which advice is sought. They include information on public funding programs, seminars, attention to individual needs and trustworthy networks of important decision-makers. Besides exchanges with peers, contacts with investors and industry are highly valued and in great demand.

However, the availability of affordable laboratory and office space remains a hot issue, too. In the years to come Heidelberg will have the chance to create space for innovative new startups not only at the Technology Park's existing sites but also in areas earmarked for redevelopment. Young companies require options for long-term growth. For this purpose, innovations and production space may be created in the very near future that will provide a further attractive impetus for research and technology companies to come to Heidelberg.



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30 Years of Heidelberg Technology Park

Timeline

1980

Initial discussions on special area for technology exchange

May 3rd, 1984

Signing of the articles of association establishing Technologiepark Heidelberg GmbH

July 26th, 1984

Signing of leasehold agreement between the State of Baden-Württemberg and the City of Heidelberg

August 3rd, 1984

Start of construction phase 1 at Neuenheimer Feld. The articles of association for Roland Ernst's company Technologiepark Heidelberg I KG are drawn up

6,321 m²
11 companies

March 15th, 1985

Topping-out ceremony for construction phase 1

July, 1985

Completion and occupancy of construction phase I INF 517-519

November 26th, 1985

Official opening of construction phase 1

from 1985

Successive occupancy of the former slaughterhouse site at Czernyring as a further Technology Park site



6,500 m²
17 companies
300 employees

1994

The first BioEurope is held in Heidelberg

November, 1996

The BioRegion Rhine-Neckar triangle wins the BioRegion competition held by the Federal Ministry of Education and Research



May 6th, 1997
The foundation stone is laid for the Technology Park construction phase 2 at Neuenheimer Feld

November 3rd, 1997
Topping-out ceremony for construction phase 2

July 20th, 1998

Inauguration of construction phase 2 INF 515

16,500 m²
30 companies
550 employees

May 6th, 1997
The foundation stone is laid for the Technology Park construction phase 2 at Neuenheimer Feld

November 3rd, 1997
Topping-out ceremony for construction phase 2

June, 2000

Start of construction phase 3 at Neuenheimer Feld

September, 2000

Opening of the Hans-Bunte-Straße center for startups headed by female entrepreneurs



May 2nd, 2001
Topping-out ceremony for construction phase 3

July 18th, 2003
Official opening of construction phase 3 INF 581-584

December 10th, 2002

Inauguration of the DKFZ research building INF 580 as part of the Technology Park construction phase 3

50,000 m²
45 companies
850 employees

48,500 m²
38 companies
more than 650 employees

April, 2006

Opening of the TP Conference Center in INF 582

November, 2006

Inauguration of the TP restaurant complex INF 585



October 17th, 2005
Opening of the TP's Environment Park in Heidelberg-Wieblingen

September, 2008

The BioRN cluster Cell-Based and Molecular Medicine and the Forum Organic Electronics cluster of Heidelberg's Innovation Lab GmbH win the top cluster competition held by the Federal Ministry of Education and Research

November, 2008

BioEurope is again held in the Rhine-Neckar BioRegion

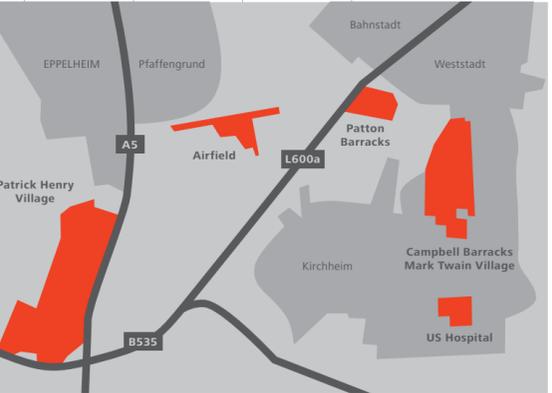
55,500 m²
more than 80 companies
more than 2000 employees

May 20th, 2010

Groundbreaking for the SkyLabs research and laboratory building in Heidelberg's Bahnstadt

July 8th, 2010

The foundation stone is laid for the new Octapharma building planned for the Technology Park construction phase 4.



April, 2011
Octapharma Biopharmaceuticals GmbH moves into the new building INF 590

December, 2012

Official inauguration of the SkyLabs

April 1st, 2014

Glycotope acquires additional space at the Czernyring site

2014

200 hectares are available for redevelopment

80,000 m²
more than 90 companies
more than 2800 employees

