No name is more strongly associated with the establishment of the computer industry in Germany than that of Heinz Nixdorf. In 1952, he founded a company which under his management rose to become one of Europe’s biggest computer manufacturers in an industry already dominated by large conglomerates. His biography exemplifies the drive and innovative ability of the entrepreneurs who played a significant role in what came to be known as the German economic miracle. Nixdorf Computer AG was taken over by Siemens and no longer exists. But the ideas which made Heinz Nixdorf an outstanding social and innovative entrepreneur live on.

Before we get to heaven, there’s life on earth, and it is here that we must build a socially just society.
Heinz Nixdorf, 1986
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Heinz Nixdorf – a model social entrepreneur

Heinz Nixdorf founded his Labor für Impulstechnik (Laboratory for Impulse Technology) in July 1952. This modest step laid the foundations for one of the most exceptional corporate developments of the post-war period in Germany – the establishment of one of the world’s biggest computer manufacturers in an industry dominated by large conglomerates.

Heinz Nixdorf exemplifies the drive and innovative ability of the entrepreneurs who played a significant role in what came to be known as the German economic miracle. When he became the first entrepreneur to be awarded the prestigious Ludwig Erhard Medal in 1983 for his remarkable contributions to the social market economy, Richard von Weizsäcker – then mayor of Berlin and later Germany’s Federal President – described Nixdorf as “Germany’s most successful entrepreneur of the post-war period”.
Heinz Nixdorf possessed all the characteristics required of a dynamic entrepreneur: the willingness to take risks, self-confidence, a pioneering spirit, discipline and motivation. He regarded work as his mission in life, but also as an opportunity to play a part in the shaping of society. For him, the creation of jobs was one of the most important tasks of an entrepreneur.

Nixdorf’s work as a computer pioneer thus paved the way for decentralised data processing all over the world. He envisioned and created computers that were intended to be easy-to-operate tools for the workplace: Even in later years, Nixdorf was able to dismantle and subsequently reassemble his company’s computers during factory tours for visitor groups from Japan or the USA, for example – an accomplishment that never failed to astonish those watching!

Although he held patents of his own, Heinz Nixdorf was not a typical inventor. He was the entrepreneurial designer of practical technical solutions, manufacturing methods, distribution processes, factory buildings and...
administrative premises. He was also exceptionally competent with corporate finances, and could grasp the key figures in the balance sheets of foreign subsidiaries or business partners, whether in Tokyo or New York, more quickly than many experts. He was both a visionary technician and a businessman in what proved to be a rare successful combination of the two.

On a personal level, Heinz Nixdorf was a modest and disciplined individual who was both down-to-earth and cosmopolitan in outlook. He was not fond of personal publicity and tended to be rather outspoken – which did not always go down well with his listeners. His overriding interest was the welfare of his fellow human beings; he was a social individual in the best sense of the word. He established social institutions and benefits for his employees that were far more generous than was common at the time.

Nixdorf wanted his company to remain independent; it should certainly not be subject to control from third parties. Thus the two non-profit foundations, the Heinz Nixdorf Stiftung and Stiftung Westfalen, were established to hold shares in Nixdorf Computer AG. After the takeover of Nixdorf Computer by Siemens AG in 1990, these foundations went on pursuing their varied non-profit-making goals completely independently, as Heinz Nixdorf would have wished.
The image of Heinz Nixdorf as a model social entrepreneur continues to live on, both in the memories of those closest to him in his entrepreneurial ventures, and in economic history. His memory is also visibly kept alive by the Heinz Nixdorf MuseumsForum in Paderborn, the world’s biggest computer museum. In addition to its permanent collection and its thematic exhibits, the lectures, symposia and workshops on present-day issues that are staged in the museum’s forum section are intended to help support people in meeting the demands of the knowledge and information society.

Our thanks go out to the authors of this brochure, Mr. Norbert Ryska, Managing Director, and Ms. Margret Schwarte-Amedick, Curator at the Heinz Nixdorf MuseumsForum.

Dr. Gerhard Schmidt
Chairman of Heinz Nixdorf Stiftung and Stiftung Westfalen
Childhood and youth in Paderborn

Heinz Nixdorf enjoyed his schooldays. He achieved good marks, and his teachers acknowledged his “gratifying intellectual aspirations”. However, the family could not afford to send him to a secondary school to prepare for university; Nixdorf counted himself fortunate to receive a scholarship to a teacher training establishment in Vallendar/Rhein when his primary education was over. In 1942 he was called up for military service. It was only after the end of the war, in 1946, that he was able to catch up with the schooling he had missed and complete his “Abitur” (university entrance examinations) at Paderborn’s Reismann Gymnasium.

Heinz Nixdorf was born in the Westphalian city of Paderborn on 9th April 1925. Just a few weeks after his birth, the family moved to the home town of his father, a travelling salesman, and thus Nixdorf spent the first six years of his life in Torgau, Saxony. In 1931, the family returned to Paderborn, where Heinz Nixdorf started his schooling at the local Catholic primary school.

It was definitely as a consequence of unemployment that my father was prevented from sending his son to secondary school. Thus I myself experienced the difficulties that unemployment can cause.
Heinz Nixdorf, 1986

Childhood and youth in Paderborn

Heinz Nixdorf as a pupil at Herz Jesu elementary school, 1931
Heinz Nixdorf in 1937
Heinz Nixdorf’s childhood and youth were spent in impoverished circumstances. Although his father was initially well able to provide for his fast-growing family, the Nixdorfs could not escape the repercussions of the global depression, and Heinz Nixdorf’s father lost his job in 1931. He later found a new position as an assistant supervisor of operations on the state railway in Paderborn, but the family was once again plunged into economic uncertainty when he was killed during the war in 1944. As the eldest son, Heinz Nixdorf had to help support his mother and siblings through seasonal work. These childhood experiences left their mark on him and became one of the greatest driving forces behind his determination to create new jobs in his company.

In 1947, Heinz Nixdorf enrolled on a degree course in physics and business studies at the University of Frankfurt/Main. But his life story took another unforeseen turn in 1951 when, as a student trainee in his ninth semester, he met the physicist Dr. Walter Sprick at Remington Rand. It was from this man that Heinz Nixdorf acquired his basic knowledge of electronic computer construction. Just seven months later, he took the decision to abandon his studies, founding a company known as “Labor für Impulstechnik” (Laboratory for Impulse Technology), which rose from modest beginnings to become a worldwide player in the computer business.
Heinz Nixdorf was the founder and long-standing Chairman of the Board of Nixdorf Computer AG. He managed this high-tech company, which he guided from extremely modest beginnings to become one of the world’s leading corporate groups, up until his untimely death in 1986. With subsidiaries in 44 countries and 25,500 employees around the globe, the company achieved sales of DM 4.5 billion in 1986. Production facilities were located at seven German sites as well as in Ireland, Spain, the USA and Singapore.

In a pioneering manoeuvre in the German computer industry, Heinz Nixdorf seized the historically opportune moment to use the new technologies of his day in the
service of office communication. Unburdened by the tradition of established office machine manufacturers, in 1952 Nixdorf ventured into the emerging field of electronics. He was among the first to anticipate the enormous market potential for small and medium-sized computers – office systems that then operated “below the radar” of the all-dominating mainframe computer systems. By the mid 1960s, Nixdorf was developing computers for the commercial and administrative sector with a price/performance ratio which proved extremely attractive to small and medium-sized businesses. In addition to hardware, and in keeping with his user-oriented objectives, Nixdorf provided a comprehensive range of application software tailored to his users’ demands, plus data processing training courses and other related services. This all-in service concept enabled the company to gain a competitive edge and achieve considerable commercial success. Nixdorf Computer AG was able to maintain this advantage in the 1970s with network-compatible multi-user systems installed predominantly in the financial and commercial sectors, but also in the automotive industry. By the mid 1980s, the company had grown to become Europe’s fourth largest computer manufacturer.

This is the way I understand the responsibility of entrepreneurs: to introduce large numbers of people to work, success and a monthly wage.

Heinz Nixdorf, 1984
The employer and trainer

As an employer, Heinz Nixdorf was first and foremost an exceptional motivator who was able to inspire his workforce. He was a credible figure because he was often on site, spoke the language of his staff, had the same office furnishings as they did and tolerated few hierarchies and privileges.

But Heinz Nixdorf was not an easy-going boss. He required the same motivation and discipline from each of his employees as he demonstrated himself. He had very precise perceptions of orderliness, and also demanded strict punctuality and scrupulous honesty. Employees who enjoyed his trust were granted great freedom of action and personal responsibility. He particularly admired the foremen and skilled workers in his production facilities for their expertise, great commitment and all-embracing sense of responsibility; and he relied on and promoted young people.

Heinz Nixdorf was ever aware of the entrepreneur’s social responsibility to create as many jobs as possible and to provide young people with training. Thus he placed great emphasis on training people in his own company. His first trainee began an apprenticeship in electromechanics in
1960. At first, 4 apprentices were taken on annually, increasing to 52 in 1966. And from 1967 onwards, his company also offered training in business as well as in the technical professions. Since the theoretical instruction provided by vocational schools was not keeping pace with the requirements of the new data processing professions, Nixdorf Computer AG provided additional in-house instruction, and Heinz Nixdorf received state approval for his own vocational school in 1970. Over the years, Nixdorf continually increased his commitment to training, preparing ever more young people for a variety of professions. By the 1980s, 9% of his employees in Germany were trainees – the highest rate of any large German company.

It was at Heinz Nixdorf’s initiative that the non-profit training association Bildungszentrum für informationsverarbeitende Berufe (b.i.b.) was founded in Paderborn in 1972. He wanted to train young people as computer experts capable of developing the tools of the digital age in a way that was both humanly and technically appropriate, and suitable for industrial use. This educational mandate of its founder continues to be satisfied by both b.i.b. and the technical college Fachhochschule der Wirtschaft (FHDW), which was created under it. These two institutions have trained over 20,000 skilled IT experts at sites in Paderborn, Bielefeld, Bergisch Gladbach, Dresden, Görlitz, Gütersloh and Hanover.
The visionary technician

Heinz Nixdorf was one of the greatest pioneers of German computer technology. He was initially an inventor and constructor, as documented by various patents. Even as an entrepreneur, he remained a technician to the extent that he was able to formulate clear-cut technical objectives and ask the right critical questions of his developers. For Heinz Nixdorf, technology was never an end in itself. Instead, it was there to serve the needs of both the customers and the market. His development of the smaller "820" computer marked the beginning of the shift from centralised to decentralised data processing. His guiding principle of bringing computers to the workplace enabled small
and medium-sized businesses to process their financial, accounting and inventory data electronically for the first time. This system philosophy remained the recipe for success of Nixdorf’s company.

The technical hallmarks of all Nixdorf products were their great networking capability, industry-specific system and application software and their ergonomically sophisticated design. Heinz Nixdorf was extremely quality-conscious and rejected any solution he regarded as “quick and dirty”. For example, he dismissed the development of the PC as an invention that had no future, saying “Wir bauen keine Mopeds!” (“We don’t build mopeds here!”)

Heinz Nixdorf was fascinated by technical innovations in other fields too. Not only did he drive on principle an NSU RO 80 with its Wankel engine, but he also collaborated with Felix Wankel and the inventor of the eco-engine on the development of a diesel-driven aircraft engine. He had the first sailing computer built with a view to optimising the trimming of racing yachts, and during the final months of his life he even collaborated with his developers in constructing a bicycle for the older generation: on the level stretches, the pedalling rider could charge the battery to generate the energy required to power the bicycle up the inclines.

We are not in the business of providing machines to destroy the old world, but of supplying elements to build a new one.
Heinz Nixdorf, 1979
With his lively interest in architecture, Heinz Nixdorf played a pivotal role in designing the company’s own premises. Taking the architect Mies van der Rohe as a stylistic role model, he and his architects developed and optimised a design in modular dimensions (1.80 m x 1.80 m) and set down construction standards. Here, too, he followed his principle of making complex things simple. This approach resulted in a number of flexible-purpose corporate buildings of uniformly distinctive appearance all over the globe.
His quest for independence and self-determination prompted Heinz Nixdorf to have all the building work performed by the company’s own construction service, which built up to 25,000 m² of floorspace every year. And it goes without saying that Heinz Nixdorf always personally monitored the progress of his various construction projects! The premises on the “Fürstenallee” avenue in Paderborn, where the head office of Nixdorf Computer AG was located, are now occupied in a unique trinity by the Heinz Nixdorf Institute, the Heinz Nixdorf MuseumsForum and the Bildungszentrum für informationsverarbeitende Berufe (b.i.b.) in conjunction with the technical college Fachhochschule der Wirtschaft.

Technological change is not achieved by revolution, but by evolution, by an infinite number of small steps, taken unceasingly.
Heinz Nixdorf, 1986
It was not just Heinz Nixdorf’s Westphalian dialect that offered the listener clues as to his roots. He also possessed the typical “Westphalian” virtues of a pronounced sense of order, an intelligent form of obstinacy in accomplishing his objectives, and honesty in his dealings with employees and business customers alike. Heinz Nixdorf was particularly attached to his native region. He was proud of the history of his home town of Paderborn and was always delighted to have the opportunity of showing visitors round the historic city in person.
Work was not the only thing he wanted to give to the inhabitants of “his” Westphalia. Heinz Nixdorf also wanted them to enjoy a special quality of life, and he promoted this aim via numerous endowments in social, sporting and cultural areas alike. His many initiatives included proposals to build and subsequently extend Paderborn-Lippstadt Airport, to provide an autobahn link for the city of Paderborn (the A33) and to create the recreational meadow round the Padersee lake now known as the “Heinz Nixdorf Aue”.

At the same time, he lobbied the state government in Düsseldorf ceaselessly and vehemently for the greater promotion of trade and industry in eastern Westphalia. It is not for nothing that one of his foundations pointedly bears the name “Stiftung Westfalen.”

...I’m a Westphalian, not a North Rhine-Westphalian. I can’t be both at once.
Heinz Nixdorf, 1985
From his boyhood onwards, Heinz Nixdorf was fascinated by sporting achievements – particularly in the area of track and field. Thus, even as an entrepreneur with a busy schedule, he always found time for sporting activities. He began sailing at the age of 45. Here, too, the motivation to become the best never left him, and what had started out as a recreational hobby became a highly competitive venture. With his driver, Josef Pieper, at the helm, he participated in major domestic and international regattas in the star class. In 1974 – just four years after obtaining his sailing licence – he claimed a stage victory in the world championships in Spain and 8th place in the overall standings. And in 1980, he once again sailed “close to the wind”, coming fifth in the North American championships. Not only did Heinz Nixdorf demand professional and sporting achievements from himself, he also wanted...
to motivate both his employees and the citizens of Paderborn in general to participate more in sporting activities. To this end, he demonstrated great personal and financial commitment to popular sport in the region. His sponsorship efforts in Paderborn were focused on amateur sports for the general public, with particular subsidies for hands-on work at sports clubs and the improvement of the general local sports infrastructure. It was in this context that he had the Ahorn Sports Park built on the company premises at Heinz-Nixdorf-Ring in 1983/1984. This facility comprised a 10,000 m² stadium, an indoor sports hall and multi-functional leisure facilities as well as outdoor areas for discus-throwing, shot-putting and stone-putting, track racing and lawns used as small playing fields.

Heinz Nixdorf also insisted that his trainees keep themselves fit. In order to encourage them to do so, he released them from two hours of their working week in order to play sports. In 1979, he even engaged a former world-record-holder in the decathlon, Kurt Bendlin, as the head of sports at Nixdorf Computer AG. The initiative to establish an Institute for Sports Medicine at the University of Paderborn can also be traced back to Heinz Nixdorf, who sponsored this project with a generously endowed chair.
Heinz Nixdorf always took great care to protect his private and family life – as little time as he had for it – from the media and the eyes of the public.

In 1958, he met his future wife, Renate Ring, on a visit to Harpener Bergbau AG in Dortmund. She was working at the company at the time. Heinz Nixdorf with his wife Renate at the topping-out ceremony for the Ahorn Sports Park, 1983

Politics must create the framework to ensure that work is worthwhile and that having children is a joy instead of a burden.

Heinz Nixdorf, 1985

The family man

Heinz Nixdorf always took great care to protect his private and family life – as little time as he had for it – from the media and the eyes of the public.

In 1958, he met his future wife, Renate Ring, on a visit to Harpener Bergbau AG in Dortmund. She was working...
as a data typist in the company’s punched-card department, using the electron multiplier constructed by Nixdorf. The couple married in Paderborn in 1960, and the three sons from the marriage, Martin, Michael and Matthias, now all work in various fields of business.

Since the death of her husband, Renate Nixdorf has supported the region of Paderborn in a wide variety of ways. This commitment earned her the Cross of the Order of Merit of the Federal Republic of Germany in December 2001.
Shortly before his death in 1986, Heinz Nixdorf established two non-profit foundations, the Heinz Nixdorf Stiftung and Stiftung Westfalen. The trust funds for these foundations – which originally consisted of shares in Nixdorf Computer AG – have come from the estate of the entrepreneur.
The purpose of these foundations is the promotion of

a) research and teaching in the field of science, with the emphasis on information technology,
b) further education and training, as well as education in general,
c) the liberal democratic state, especially the social market economy, and
d) the health of the population, including sport.

The Stiftung Westfalen operates in the region of Westphalia, while the Heinz Nixdorf Stiftung is active beyond regional borders. The following not-for-profit institutions, which are supported and sponsored by these two foundations, have their roots in the ideas and works of their benefactor Heinz Nixdorf:

**The Heinz Nixdorf Institute**

Even early in his career, Heinz Nixdorf was keen to forge closer links between university research and industrial development in order to successfully meet the technical challenges of the early information age. A year after Heinz Nixdorf’s death, an agreement concluded in 1987 between the Stiftung Westfalen, the State of North Rhine Westphalia and the Federation paved the way for one of Germany’s biggest independent...
unique museum is dedicated to the historical development, present-day significance and future perspectives of information and communication technology. Opened in 1996, the HNF not only possesses a permanent exhibition, but also an events centre in which lectures, training courses and debates are held and special exhibitions are staged on important issues of the day. It is the world’s biggest computer museum as well as a lively forum for discussion on the impact of information technology on people and society alike.

**Heinz Nixdorf MuseumsForum**

The Stiftung Westfalen fulfilled a dream of Heinz Nixdorf’s with the establishment of the Heinz Nixdorf MuseumsForum (HNF) in Paderborn by the foundation’s subsidiary, Heinz Nixdorf MuseumsForum GmbH. This research establishments for computer science. Thus it was that the Heinz Nixdorf Institute (HNI) – an interdisciplinary research centre for computer science and technology at the University of Paderborn – came into being. A particular feature of the HNI is the close collaboration between computer, natural, engineering and economic sciences.
Heinz Nixdorf
and his company –
– an overview

1925 | 9th April: Heinz Nixdorf is born in Paderborn as the eldest of five children.

1939-1942 | Studies at the teacher training establishment in Vallendar/Rhein.

1942-1945 | Military service.

1947 | “Abitur” at the Reismann Gymnasium in Paderborn.

1947-1952 | Degree course in physics and business studies at the University of Frankfurt/Main.

1951 | Heinz Nixdorf is employed as a student trainee at Remington Rand in Frankfurt. Here he becomes acquainted with the development of digital switching circuits for multiplication and adding tasks.

1952 | Founding of the Labor für Impulstechnik (LfI) in Essen; development of the first electronic computer using vacuum tubes for Rheinisch-Westfälisches Elektrizitätswerk (RWE).

1959 | Nixdorf opens a second production facility in Paderborn. The LfI employs 40 staff, and the company’s head office is moved from Essen to Paderborn.

1960 | Marriage to Renate Ring; subsequent birth of sons Martin, Michael and Matthias.

1961 | Construction of Nixdorf’s first company-owned factory premises on Pontanusstrasse in Paderborn.

1968 | Acquisition of office machine manufacturer Wanderer Werke in Cologne, and change of name to Nixdorf Computer AG.
1974 Construction of the new production facility in Paderborn on what is now Heinz-Nixdorf-Ring.

1977 Sales exceed DM 1 billion. Over 10,000 staff are employed around the globe. The company is awarded the German Marketing Prize.

1983 Heinz Nixdorf becomes the first entrepreneur to be awarded the Ludwig Erhard Medal.

1984 First public listing of Nixdorf shares on the German stock exchange.

1985 Production capacities are extended at the factories in Germany, the USA, Ireland, Spain and Singapore. Sales reach almost DM 4 billion, and have thus risen on average by 21% per annum since 1968. The company employs 23,300 staff in 44 countries.

1986 17th March: death of the company founder and Chairman of the Board of Managing Directors, Heinz Nixdorf.

1990 Siemens AG takes over the majority of ordinary shares in Nixdorf Computer AG. On 1st October 1990, the company is merged with the computer division of Siemens to become Siemens Nixdorf Informationssysteme AG (SNI).

1992 Siemens AG increases its share in SNI to 100% and incorporates it into Siemens AG.
# Imprint

<table>
<thead>
<tr>
<th><strong>Publisher</strong></th>
<th>Heinz Nixdorf Stiftung, Munich</th>
</tr>
</thead>
</table>
| **Editors**   | Norbert Ryska, Managing Director  
Margret Schwarte-Amedick, Curator  
Heinz Nixdorf MuseumsForum, Paderborn |
| **Layout**    | typ[e]isch Frauke Walter, Bünde |
| **Photos**    | HNF Heinz Nixdorf MuseumsForum GmbH/  
Jan Braun Photodesign, Paderborn |
| **Printer**   | Merkur Druck, Detmold |
| **Translation** | LS Language Services, Paderborn |
| **Copyright** | Heinz Nixdorf Stiftung, 2006 |
| **Source of copies** | HNF Heinz Nixdorf MuseumsForum  
Fürstenallee 7  
33102 Paderborn |
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Heinz Nixdorf, 1986