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"Innovation & Progress" (Dr Dirk Leiss)

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Preface

"IDEAS BEYOND SURFACES" is the motto for our 300-year anniversary, which we would like to celebrate with you this year. An anniversary, which fills us all with great joy but also a good deal of pride because only a few companies can look back on such a long and eventful history. As you can see from the anniversary motto, our history has revolved around the design and the refinement of surfaces from the beginning. These surfaces have been conceived by various generations and optimized through a process of constant improvement.

The founder of our company, Johann Friedrich Appel, began our threehundred-year history with his "Wachstuchmacherey vor dem Steinthore", which provided the spark for sustainable success. After a series of difficult decades of changing owners, the Benecke family ultimately took over in the year 1771. Their centuries of importance can still be seen in the name of the company.

In addition to active entrepreneurial personalities, however, it was the employees themselves who "made history" with their industriousness and great creativity. Their loyalty and innovative energy repeatedly set new milestones: the successful industria-lization of the production facility after the 1880s, the entry into the automobile supplier industry in the 1920s, or the establishment of the Acella brand, which allowed us to become one of the largest plastics processing companies in Europe from the 1950s on. Our company's growing importance in the design of automobile interiors since the mid-20th century would also not have been possible without our committed employees.

Today, 300 years after the founding of the company, we are much more than simply an automotive supplier. Our merger with Hornschuch and the integration of the Elastomer Coatings business unit has enabled us to greatly increase our industrial expertise as well as our number of employees. For example, the Benecke-Hornschuch Surface Group currently pools the entire surface competence of the Continental group with 15 factories around the globe and delivers products to more than 80 countries worldwide.

By combining forces and exchanging knowledge and technologies throughout the company, we will become even more attractive for our customers in the future. For this reason, I am certain that we will continue to grow in all markets with innovative, customer-oriented solutions. Examples of this are the areas of electromobility and autonomous driving, which will completely change the vehicle interior. There is no end in sight for the success story that our ancestors started 300 years ago. On the contrary: in the coming decades many interesting chapters will be added.

On this note, I wish you instructive and enjoyable reading of our unique history. It shows not only our development from the "Wachstuchmacherey vor dem Steinthore" to the Benecke-Hornschuch-Surface Group, but also simultaneously provides insight into the social and economic history of Hanover – the city with which we have been closely connected since the beginning of our activities.

Sincerely,

Dr. Dirk Leiß

Chapter 1: 1718 - 1771

Pioneeringage... "Monsieur Appel has a new idea"

Monsieur Appel has a new idea

Hanover, 1718: not an especially eventful year in the history of the city – at least at first glance. The chroniclers merely recorded a few unspectacular occurences, nothing lastingly capable of interrupting the slow course of the city's development: new guild regulations for the bakers, the inauguration of St Clemens' Church and finally the destruction of municipal enclosures at the "Schnelle Graben" by farmers from Rickling to prevent feared flooding of their meadows. In the then already largest city on the River Leine, which at the time provided living quarters and protection to approximately 11,000 inhabitants behind an elaborate fortification system, the clocks seemed to be standing practically still.

This was also due to the personal union established recently between Great Britain and Hanover, following which the Prince of Hanover not only became the British King but had just moved to London. The departure of the court admittedly created some freedoms for the city's residents, but political, economic and cultural development suffered noticeably from the reduced attention paid to his ancestral homeland by King George I.

The general conditions thus did not necessarily seem to auger well for immediate success when Johann Friedrich Appel decided in 1718 to establish an oilcloth factory near the Klagesmarkt in today's city centre. The knowledge that the sales potential for his product was very high could have motivated him to take this step, however: oilcloth was increasingly popular and oilcloth wallpaper even became a veritable fashion item during the 18th century. The "supplier industry" required for the operation of his trade even already existed. In many parts of Lower Saxony at that time, largely coarse canvas was produced, which served as a raw commodity in oilcloth production. Though only very tentatively and accompanied by setbacks, more business-friendly practices were also beginning to develop in the Hanoverian boroughs. Directives in 1718 and 1740 introduced some benefits for the handicrafts, cottage industry and commerce, for example an exemption from county taxes.

"A fabrique progressing well"

Whether the ambitious "start-up" could fulfil the expectations of its founder cannot be unambiguously determined today. In a letter to the "Royal British Electoral Government of Braunschweig Lüneburg" of 2nd December 1741, Appel furthermore stated, "that my fabrique is progressing well and improving year on year." He was concerned with the renewal of his operating licence in this letter, however, so in his representation he may also have had this purpose in mind. Only one thing is certain: the operating grant was renewed and the "fabrique" led by "Monsieur Appel" until 1749.

The use of the term "fabrique" is, of course, not to be interpreted in the sense of modern industrial production facilities, but instead refers in the common parlance of the 18th century to a related commercial unit which according to contemporary usage would be designated as hand manufacturing. The production of the oilcloth still took place chiefly through pure handwork: the canvas was first stretched on wooden frames and then coated with linseed oil varnish. The resulting oversize "oil painting" was finally then laid out to dry in the sun. The procedure was thus highly dependent on weather conditions.

At the time this was referred to as "wax cloth", which is also misleading in a literal sense, since cloth treated with wax was already a thing of the past at the beginning of the 18th century. In fact, in antiquity and the middle ages, materials were treated with wax to make them more waterproof and durable. Later, however, wax was less-used and substituted for cheaper and more convenient linseed oil varnish. The oilcloth maker Appel also produced on this basis from the start.

Changing owners

The first change of proprietorship was finally made exactly mid-century. Hailing from a wealthy Hamburg family, David Wallach journeyed to Hanover to purchase the firm from the owner, Appel, presumably now of pension age. He clearly seemed convinced by the business idea and, simultaneously, also willing to take on the increased competition from Leipzig and Hildesheim.

The new boss was rapidly confronted with economic reality, however. From the records in 1752, David Wallach clearly had pleaded his case with the government, complaining that his goods had been rendered as uncompetitive. In his view, the reason was that, on the one hand, no so-called "Licent" – an excise duty – had been raised on imported oilcloth, but had been, on the other hand, on the oil required to produce domestic oilcloth. This was completely new terrain for the authorities since there were "no other oilcloth mills in local boroughs." Nevertheless, the entrepreneurial appeal was heard and almost immediately gained a legislative response. With a directive on 6th April 1753 an additional tax was raised on imported oilcloth.

Even this protectionist measure could not solve the fundamental problems of the "oilcloth factory in front of the stone gate", however. Defaulters, the occupation of Hanover by the French during the Seven Years War and finally the death of David Wallach in 1758 dashed all hopes for the future. Though production was presumably spared from billeting and additional taxes, the son of the deceased proprietor, Moses Wallach, decided to sell the factory to two Hanoverian merchants. From 1st March 1759 the new owners were named Richard Peter Dähling and Georg Friedrich Louis.

Twelve years ensued in which the business partners could only poorly maintain the operation of manufacturing. The political and economic conditions neither allowed for any larger investments nor thus expansion of the company. Meanwhile, in the local Hanover advertisements, customers were sought and the merits of "oilcloth wallpaper in every kind of colour and attractive design" were praised. These statements are listed in greater detail in the records of the first trade book. Overwhelmingly, muted colours were offered for sale, with the materials subdivided into the quality grades of "ordinary" and "fine".

Finally, neither the undisputable quality of the materials nor the efforts with advertising helped, since the plundering of Hanover by the French and reduced purchasing power had afflicted the company so badly that the burden of debt had risen to double the original purchase price paid to Moses Wallach. Only one option remained in the end: Louis quit, while Dähling had already either resigned as a partner or had died.

Chapter 2: 1771 - 1871

Consolidation ... "With God's will and 3,797 thalers"

Benecke, time to take over!

In 1771 the first Benecke finally took to the entrepreneurial stage: Ernst Philipp Benecke (1731 – 1794), the son of a Hildesheim notary, bought the factory from Louis for exactly 3,797 reichsthalers and 9 mariengroschen. Four years later, he is said to have also acquired a garden near the oilcloth factory and thus significantly expanded the area of the "fabrique" premises. Presumably the then 40-year-old buyer saw some potential in the acquisition since the purchase price was not to be trifled with. As a rough comparison, the annual salary of a Lower Saxony housekeeper at the end of the 18th century amounted to 40 to 50 thalers. The 9 mariengroschen were insignificant, corresponding to the value of a pound of Swiss cheese at the weekly Hanover market.

The entry of the Benecke family into oilcloth production at first seemed to occur under adverse circumstances. Following the Seven Years War, in which Hanover had fought on the side of Frederick the Great, the financial burden had significantly increased. There were furthermore several consecutive poor harvests, which led to food price increases and a famine across the whole of Germany from 1771 to 1773. Additionally, the fundamental economic conditions appeared at the beginning to offer no positive prospects for development. Compared to major states such as Prussia or Great Britain, Hanover remained rather an unimportant kingdom and, in contrast to the large Hanseatic towns of Bremen and Hamburg, the capital city possessed little economic significance.

Nevertheless, the House of Benecke did not succumb to the contemporary difficulties and immediately began to invest in the productive capacity of the firm. To this end, a search for competent employees was launched using the most modern "social media" of the age, namely the Hannoversche Anzeigen [Hanover advertiser], which had existed since the mid-18th century.

An advertisement of 14th March 1773 describes the qualification profile and services of the firm as follows: "If there is among the retired troops or others a good painting assistant who would like to paint in figures and flowers, please contact the local Benecke oilcloth factory in front of the stone gate for good wages and plenty of work."

The notice shows that Benecke was prepared to pay an appropriate and fair wage for their work. This appeared to be important not least for the sake of the company's own reputation, since the city's residents were generally rather hostile to the manufacturing sector. Factory owners were seen as belonging to the nobility, as well as parvenus to the established middle classes, and the "simple people" viewed the growing wealth of this new social group with some dissatisfaction since the so-called fabricants had sometimes very quickly gained considerable wealth. Around 1770, the lifestyle included the possession of English furniture, precious coffee sets and, in addition, an important status symbol of the time, the elaborately crafted pocket watch, was a must.

However, between success and Benecke stood hard work, as ever, and it was first necessary to get down to business. The new firm proprietor nevertheless managed right at the start to attract the attention of contemporary chroniclers and thus register an early marketing success. In 1774, a visit was paid to the city on the River Leine by Heinrich Sanders, who with his books and travelogues was among the popular authors of the late 18th century. He composed the earliest remaining review of the "Benecke oilcloth factory", containing very direct impressions and providing a detailed picture of the production conditions of the time.

"The canvas is stretched out and first rubbed smooth with pumice stone. Then it receives a black base made of carbon black and varnish. Now it must be dried out in the fresh air for a long time, all the while stretched out. Then there are forms and models and various colours, bright yellow, Berlin blue, umbra and chalk. The varnish, with which lastly everything is coated, is boiled from amber. The most troublesome thing is that one must so often dry it and wait for such a long time, especially in bad weather. There is a painting chamber, a workhouse, moulding cupboards, meadows for drying and stretching, and above store-rooms, where the most beautiful items hang, making the eye quite tame. The coarse oilcloth, which only serves as packaging, is made of coarser canvas and processed less. The oilcloth used to make hats requires more work and is more expensive. There is also oilcloth for floors which can be given such brown colours and figures that some think the floor is polished. The same pattern can also be made with various colours, etc. Such wallpaper is to be found in nearly all average homes in this country."

In fact, oilcloth wallpaper enjoyed increasing popularity in the 18th century. Previously, relatively dark living spaces with wood panelling and whitewashed walls were the order of the day, which gave rise to a desire for more welcoming rooms. Above all, the tastes of the aspiring middle classes played an important role here, their requirements increasing successively. Materials such as velvet, silk, brocade or gilt leather found in aristocratic circles became less-used – owing to purely monetary factors. By contrast, oilcloth wallpaper represented an affordable alternative, which simultaneously enabled a modest form of display in the home.

Furthermore, oilcloth wallpaper had a very practical advantage: it was not only comparatively durable, but due to the varnish coating was also washable. Whether imprinted, painted or stencilled on – oilcloth was generally produced according to the individual wishes and wall dimensions of the purchaser. Flower patterns were popular and likewise produced by Benecke, superimposed with bright colours on usually dark backgrounds. Additionally, from around the mid-18th century arose figurative chinoiserie and so-called "Pekings", which were oriented to the Far East with their floral decorations. And, for example, whoever wanted to impress guests quickly could even hire oilcloth wallpaper and thus be assured of the envious glances of their host

society.

A generation shift

The infrastructure of Hanover also slowly began to improve and in the 1780s and 1790s several streets arose in the style of French avenues. The Hanoverians continued, however, to be quite unamenable to entrepreneurship and still less prepared to take risks. The commercial counsel Patje noted during this time how little flattered he was by the mentality of his fellow countrymen, whom he said were to be characterised as possessing "frightfully little entrepreneurial spirit." "A failed trading or manufacturing firm, even a commercial bankruptcy, which would be completely unsensational in a mercantile state, remains for the Hanoverians like an incontrovertible warning, to which the father refers his son if he possibly has an entrepreneur's character and wishes to veer from the customary path." The urban core in fact showed very little commercial activity in the late 18th century with 38 commercial enterprises, which mostly only employed a few people.

Likewise, trading activities at best only displayed regional significance. Elsewhere there was already far more progress – including in oilcloth production. In 1784, there were ten oilcloth producing firms in Saxony with approx. 500 employees, which also exported to other European countries. By comparison, Benecke maintained his monopoly in the Hanover area and exported his goods demonstrably as far as to Bremen, Hamburg and the Bergisches Land region.

Upon the death of Ernst Philipp Benecke in 1794, a financially consolidated and even presumably debt-free business could be handed over to the following generation: the two eldest sons, Friedrich and Johann Heinrich Benecke, both in their twenties, took over their father's legacy. After Friedrich largely withdrew from the firm around the turn of the century, Johann Heinrich (1767 – 1813), who later gave his name to J.H. Benecke, moved in 1802 with his wife Caroline into the factory premises in the Judenkirchhof. This was a very deliberate decision to reinforce his presence on-site. Together with Messrs. Bickmeyer, Hahne and Kütmann, who likewise lived on the factory premises, a steadfast community was formed, which could adapt very effectively to changing fashions – especially since the longestablished oilcloth wallpaper was little by little being replaced by paper wall coverings in the late 18th century. Luckily, Benecke had already "diversified" and offered a broad spectrum of products. The Hannoversche Anzeigen of 25th April 1800 depicts first and foremost interior design items, for example borders and garlands, as well as "painted table-tops and imprinted hammercloth of fine oilcloth in the latest fashion."

All entrepreneurial ambitions were once more thwarted by world-historical upheavals, however. The war between England and France led to the renewed French occupation of Hanover, with concomitantly high payments to the occupiers. The French troops had to be provided for by the city's residents and were also quartered with Benecke – with very negative consequences for all business activities. Finally, trade broke down and the population of Hanover fell to 12,500 in 1809, corresponding to a decline of a quarter as compared to before the war.

Following the early death of Johann Heinrich Benecke in 1813, his widow Caroline (1783 – 1857) took over the direction of the company and engaged herself intimately with the work – a likewise early form of emancipation, if at first born of necessity. Meanwhile, Caroline Benecke had to raise a total of five underage children whilst simultaneously keeping the business afloat. This double burden seemed at first hardly manageable. The firm manageress knew perfectly well how to protect against the planned new establishment of a oilcloth factory in the local area, but, in the face of increasing competition from foreign commodities following the end of the Continental Blockade, even she was helpless. The numerous temporary loans with which the workers supported Caroline Benecke and the factory substantiated how problematic the economic situation must have been.

A longer time-span was presumably required, possibly even several decades, before the difficult circumstances could be surmounted and conditions allowed for a sustainable economic upswing. The introduction of gas-powered street lighting in Hanover in 1825 offered a first "glimmer of hope" – even before in Berlin and other large cities. Following the dissolution of the personal union with Great Britain in 1837, the shadowy existence of Hanover commerce, which for a long time had offered little opposition to the expansion of English industry, could be ended. Furthermore, the first stretch of railway from Hanover to Peine was opened in 1843, thus setting a mobility revolution in motion. The economy was predicted in its aftermath to profit strongly from the new possibilities and Benecke also scheduled unimagined flights of fancy.

Successes with drying ovens

A further decisive moment in the history of the oilcloth factory was recorded in 1846. The eldest son of Johann Heinrich and Caroline, Philipp Ferdinand Benecke (1805 – 1883), who it appears made his first awkward entries in the ledger of the firm at the tender age of 13, took over the directorship.

It was an altogether successful entrance, since immediately in his first year he achieved an impressive annual turnover of 5,000 thalers. Quite clearly, here was a born entrepreneur at work, who had already founded his own lacquering factory and combined business acumen with technical skill in his person. On assuming full responsibility for J.H. Benecke, he began without delay to lead the company by means of radical changes onto a course of expansion:

between 1849 and 1851 he founded successively a carbon black and paint factory, a weaving mill and window blind plant. The factory building in the Judenkirchhof, which was likewise newly-built in 1847, was ultimately combined in 1851 with the auxiliary plants as a joint operation with approx. 30 workers.

Success quickly followed. On 31st December 1852, Philipp Ferdinand commented in his journal: "Today at the end of the year I note here with thanks to God and inner joy that this year was the best and most blessed for my businesses which I have yet known. All operations without exception have exceeded my expectations." This positive outcome applied to the whole of Philipp Ferdinand Benecke's creative period. He thus succeeded in increasing turnover fivefold during his just over 20 years of solo leadership activities.

His inventiveness first and foremost was the reason for his success in 1853 in constructing a drying oven for oilcloth. The ovens were rapidly further developed for series production and, already in 1854, the first three prototypes were ready for use. Thereby, production could take place all the year round, which absolutely counted as a revolution in the manufacture of oilcloth, which hitherto had been highly dependent on the seasons and weather conditions. The significance of the drying ovens was also expressed later in the so-called "oven festival" – by the standards of the day, a high-spirited celebration to which the Benecke family invited not only the entire staff but also friends and neighbours.

Due to the improvement in production capabilities, supply could now finally be adjusted to increased demand since, in the meantime, numerous new applications for oilcloth had emerged. Among them was the production of medical cloth for hospitals, carpets for train carriages and mail vans, furniture and packaging covers, as well as apron kits. Nothing yet had changed in the fully hand-produced methods, however: the oilcloth was still clamped in wooden frames, rubbed, primed, marbled and lastly lacquered. In the 1850s, 15 workers produced on average 48 frames each of 8 metres on 14 handlooms per day.

The admittance of Hanover to the Deutscher Zollverein [German Customs Union] in 1854 should have had a positive effect on sales opportunities. The entry took place, incidentally, against the declared wishes of the company boss, who had protested vigorously to the Hanoverian authorities against the lifting of tariff barriers. Philipp Ferdinand feared his company would suffer losses due to the increasing competition with other oilcloth fabricants, which however did not come true. In 1860, furthermore, a directive on the licensing of peddlers came into force, whereby sales of oilcloth to "end customers" could be significantly improved.

Once again, political cross-fire was set to frustrate the orderly development of company business. After the conflict between Prussia and Austria had come to a head and de facto King George V sided with the Austrians, Prussian troops occupied the city on the River Leine in 1866. In the same year, Carl Schwarz, the nephew of Philipp Ferdinand, became a partner in the firm. Carl Schwarz (1839 – 1908) had already lived in the Benecke family house since 1853, the firm boss having taken on the education of the boy himself. The beginning of the partnership marked an important moment in the history of the company since the Schwarz family would play a formative role in the direction of the firm until the second half of the 20th century.

Chapter 3: 1871 – 1914

Industrialisation ... "Establishment of business in Vinnhorst"

Growth and Charity

The years after the foundation of the German empire in 1871 brought an unprecedented economic boom for Germany. The creation of a single market, an economically liberal legislature and not least the introduction of a unified currency laid the foundations for an unmatched economic upturn, which was accompanied by major investments. The approach was certainly more modest at Benecke: during the so-called founding boom phase, merely the construction of a varnish kitchen was recorded, which was later equipped with a 36-metre high chimney to avoid causing an odour nuisance to contiguous land belonging to the renowned Count of Waldersee.

The general good manners of the Benecke family included modesty. Their reputation for readiness to help and charitableness also preceded the family. The residence was open to many people and at family celebrations it was not rare for the whole neighbourhood to be welcomed in. The poor and sick were regularly cared for with donations of money and natural produce, usually through the Protestant Christuskirche, as well as the Henriettenstift [Henriette Foundation], which both still exist today. Now and again, social engagement also coincided with business interests or early "recruiting policies". According to the report of a housemaid in 1872, "Several children from Barsinghausen were clothed for confirmation by the Benecke family. Mrs Benecke always picked some of the boys and girls, clothed them and led them into the office. Then she said to Mr Benecke: "Ferdinand, have I done it correctly?" Mr Benecke thought everything was fine. He then spoke with the children and often agreed with the boys there and then that they would begin work for him as a printer, etc. after they had finished school."

Far more important for the further progress of the company was the long overdue industrialisation of production operations. Philipp Ferdinand Benecke had taken a lot of time to consider this course of action, calculated prices, weighed up the factors and had, in fact, been put off undertaking the major investment. The question here was whether to take a not-to-beunderestimated risk. The decision finally came late, but not too late, in the 1870s to further develop the business into a modern industrial enterprise, the first construction phase beginning in 1879.

Hand production methods were now a thing of the past and hand-operated machines were being replaced by steam engine operation step-by-step. By 1883, following the last construction stage, the new production plant was provisionally finished – just in time for the now 78-year-old Philipp Ferdinand Benecke to see his life's work completed. In the same year, the long-standing head of the firm died and was succeeded by Carl Schwarz and Hermann Benecke (1854 – 1908).

The fundamental conversion of the entire production process of course represented a considerable challenge and did not occur without start-up problems. The recollections of the painting foreman, Arnold Stege, provide interesting information on the problems at the beginning with mechanical operation: "The China clay was stirred in with thin varnish, it was like herring spawn, anything you like, but not oilcloth mixture. ... I have churned butter with Mr Schwarz to try to make a mixture capable of being processed by the machine. ... It was like this for some time, and it still didn't work. We couldn't keep up with the competition."

First environmental regulations

Even if no breakthrough could be achieved in the technical field of production, nevertheless the year 1883 represented a fundamental and decisive point in social relations. At the same time as the introduction of state health insurance under Chancellor Otto von Bismarck, J. H. Benecke established its own private company health insurance, which is among the oldest of its kind. Among other things, the scheme, which automatically covered all employees across the board, provided nursing services as well as sick pay, maternity allowance and death grants. At the time, the company paid one-third of the insurance contributions, with the employees obliged to cover the rest.

Around the year 1890, the German Reich was in the midst of its intensive industrialisation phase. The production volumes were reaching ever new highs and Benecke was now approaching its capacity limits too. Since it looked as though further spatial expansion at Judenkirchhof was impossible, there was a pressing need for another solution. Therefore, on 2nd August 1889, the company applied for permission to build an even larger oilcloth factory within the Vinnhorst parish land – at that time, about six kilometres from the northern city limits of Hanover. The purchase contract for the 13-acre parcel of land was finally sealed on 25th April 1890. In hindsight, this was not only a good decision, but also one made at exactly the right time, because between the mid-1890s and the beginning of the First World War, Germany experienced an exceptionally long period of economic growth, which the oilcloth factory was also to benefit from.

The acquisition of the plot by Benecke meant the beginning of a new era for Vinnhorst, as until then, this bucolic stretch of land had come into little contact with industrial and urban development. However, not every Vinnhorster was pleased with modernity encroaching upon their cosy idyllic village. A total of 27 farmers objected to the planned factory – as part of an early citizens' initiative for environmental protection, so to speak – as they feared it would adversely affect not only the health of the residents, but also that of the animals and plants. "The school located near the soon-to-be factory site would be rendered unusable," predicted the complainants, who filed their opposition with the District Committee of the District of Hanover. Assessors commissioned by both parties adequately supported the position of the party they were supposed to represent. Seeing as a solution was not in sight, the head assessor made a final decision: the permission to build the factory was granted! But the residents achieved at least a partial success, as Benecke was effectively obliged to comply with numerous requirements regarding the factory's production processes, thus making them rather environmentally friendly for the times. All factory wastewater had to be cleaned and it was not allowed to contain "either acidic or caustic or oily or any other substances harmful to animals and plants". Flame cleaning of vessels and equipment was expressly prohibited. The impressive 35-meter-tall chimney, which could be seen from far and wide, was one of the results of these conditions.

After the hesitant introduction of machine operation at the old location, the company had now taken on a much larger risk. A venture that was initially associated with very high overall costs and one that those in charge might well have lost some sleep over. In the end, the expenditures for the new building in Vinnhorst amounted to a total of 860,915 marks, with major cost factors being the high-rise buildings (over 400,000 marks) and the mechanical equipment (about 150,000 marks). In order to raise these sums, for the first time in the company's history, a larger loan had to be taken out.

Though the high level of investment may indeed have weighed heavily on the balance sheets, this had little impact on the positive atmosphere within the company. This was because, as one of the most modern oilcloth factories in the world, they now had an impressive fleet of machines that offered the best growth prospects: rubber calenders, friction calenders, grain calenders, finishing machines, primers, paint mills and paint mixing machines had been part of the company's inventory since 1891. This would allow for a very swift start of full-speed operation. Only one and a half years later, the Building Assessment Bureau in Godshorn approved the new site, and construction was thus completed.

Social upheavals

In addition to expanding production possibilities, undoubtedly the most

important prerequisites for the economic expansion of the company were increasing mobility and, especially, accelerating the movement of goods. Because of the choice of Vinnhorst as a new permanent establishment, since 1893, the company had been benefiting from the advantages of direct access to the Hanover – Celle – Hamburg railway line. Nevertheless, what posed more of a challenge in the pre-automotive era were the inner-city distances between the old and the new factory. The only mode of transport available to the commuters at the time, however archaic this may seem now, was the horse-drawn cart.

Nevertheless, industrialisation had already left its mark on Hanover. Within a relatively short time, Hanover became a major city with a population of exactly 122,843 inhabitants in 1880. The percentage of workers in the total population had increased disproportionately, which resulted in social issues now becoming more and more important. Politically, this development was reflected in the rise of social democracy, with a member of the Social Democratic Party serving as a deputy for Hanover after the Reichstag elections in 1884.

The increased power of the working class could certainly be felt in the factories. After the first organised general strike in the mining industry in Ruhr in 1889, the "strong arm of the proletarian" struck more and more often, showing the factory owners their place. There were, of course, good reasons behind these social protests because the working conditions in industrial companies around that time were in a desperate need of reform. Benecke was no exception either. Working weeks of up to 60 hours were not uncommon. Therefore, there was also a standstill at Vinnhorst at one point, as part of a strike of almost four weeks in length, described by the then paint master Arnold Stege as a "watershed moment which upset the previously good relations between the management and the workers". The increasing alienation between the workers and those at the top was primarily due to the steady growth in the number of employees over the past decades. In 1910, the company executives were already responsible for a workforce of as many as

350 across two different locations.

Despite numerous improvements in production, there continued to be some fundamental issues regarding the nature of the materials. In winter, the oilcloth was often hard and brittle, which meant that when unrolling the solidified oilcloth, numerous cracks would often appear. As an immediate alternative, Benecke started producing leather cloth. Thanks to graining and lacquering, a significantly higher quality could be achieved with this product in comparison with the ordinary oilcloth. The new material was primarily used in furniture upholstery and for the interior fittings of cars and railway carriages.

But those in charge at Benecke were by no means satisfied yet and, very early on, they started experimenting with alternatives to natural materials. Starting from 1892, the first experiments were made with nitro faux leather, so it would be right to count the company among the pioneers of the plastic. It soon became clear that nitro faux leather had considerable advantages over oil and leather cloths, which were primed with linseed oil varnish. These included better cold resistance and resistance to ageing processes of all kinds. The new material found its main application in wallets and handbags as well as furniture upholstery. At first, however, the nitrogen-based products did not play a significant role compared with the tried-and-trusted oilcloth. According to the price books from this period, in the three decades preceding the outbreak of the First World War, the company's sales were almost exclusively focused on the well-known and already well-established articles. These included, in particular, "waxed fustian" and "muslin oilcloth" by the meter.

The year 1908 could be described as a fateful year in the history of the company, a clear turning point: Carl Schwarz died of a heart attack and Hermann Benecke suffered a stroke, from which he would not recover, dying only three months later. Their successors, Carl Schwarz Jr. (1870 – 1952) and Wilhelm Burgtorf (1860 – 1941), who had served as partners since 1903, were certainly very aware of the increased responsibility which now rested on them.

This was because only a year earlier, construction works had started again, this time with a view to expanding the factory in Vinnhorst. Incidentally, this was once again associated with an increase in environmental standards.

Wastewater was thoroughly cleaned, in particular via the "complete separation of clean and dirty wastewater", as the company emphasised in a letter to the Royal District Bureau in 1907. Dirty water was now passed through a three-part system to reduce the amount of harmful substances released to a minimum. Now that the management had relocated to the new plant in Vinnhorst in 1901, it became clear that the new site in Vinnhorst was set to become the main plant. There had been no notable structural changes in the old factory building for quite some time. In 1910, having sold their residence, the Beneckes finally moved their family home to the vicinity of the new site.

Chapter4: 1914 – 1950

Crisis exconomics ... "Darkening instead of a blaze of colours"

Wartime economy and inflation

The outbreak of the First World War also triggered strong emotions in Hanover, with war enthusiasm on the one side and scattered anti-war rallies on the other side of the political spectrum – a mélange so typical of many large cities. However, the fatal effects of the much-trumpeted "catastrophe of the 20th century" were initially barely noticeable, as a lot still looked very much as it did in peacetime. With the expansion of the port of Linden, the inauguration of the City Hall and, finally, the completion of the new Continental administration building, the development in construction continued unabated. Hanover was bursting with economic power and newfound self-confidence: since the mid-19th century, the city had made an astonishingly rapid transition to a modern industrial base.

The order books at Benecke were also comfortably full, with the financial year 1913/14 being the most successful year in the company's history thus far. Thanks to the sustained boom, the company's turnover had increased fifty times in comparison with 1860. But as the war continued, it inevitably took its toll on J.H. Benecke too. Regardless of whether they did so with great euphoria or nothing more than a sense of necessity to perform their duties to the Fatherland, many workers and employees had to "march off to the trenches".

This reduced the workforce – 350 employees before the outbreak of the war – to 50 loyal workers in 1918. And if personnel shortages were not enough, there were also raw material shortages to complete the picture. As the stocks of linseed oil and fabric dwindled, production was becoming more and more makeshift. Typically of wartime, one had to make do with substitutes, replacing some fabrics with paper. Just as later on during the Second World War, the production range was also adapted to the needs of the wartime economy, for example, by producing leather cloth for military purposes.

Meanwhile, the social circumstances had deteriorated further. Supplying the population with food had become an increasingly urgent problem. From March 1915, the municipal magistrate had to issue bread cards, while later on, meat, eggs and coal were rationed. Benecke responded to this development by resorting to the established means of occupational welfare: families of workers called to the front received four marks a week, which was equivalent to about three kilograms of bread.

Following the Armistice of Compiègne in 1918, though the Europe-wide slaughter had stopped, the political and economic conditions remained difficult and unclear. Throughout the country, but especially in Hanover, socialistoriented workers' and soldiers' councils were formed, temporarily seizing power. Therefore, the future of a medium-sized company, such as Benecke was at the time, initially looked very uncertain. A glimmer of hope came, however, in 1919 when "OB", as the employees would reverently call Otto Benecke for decades thereafter, joined the company. By this handover to the younger generation, the owner family demonstrated that they continued to be confident about the success of this long-standing company and, at the same time, they were willing to invest in the future.

Otto Benecke (1895 – 1970), who had completed his commercial apprenticeship in Bremen, first went through all departments of the company in a systematic manner. His leadership qualities must have been recognised quickly, seeing as in 1921, at only 26 years of age, he was appointed a shareholder and given the power to represent the company. Hard-working, approachable and insightful when dealing with both the big and small things of everyday life, Otto Benecke embodied all the qualities of a born entrepreneur, succeeding in assert himself as a charismatic leader on a variety of arenas. However, "OB" was also seen as somewhat "bull-headed", with some employees considering him a "difficult boss", as the "Acella Kurier" very frankly noted on his 70th birthday. Under his leadership, the company succeeded in overcoming the greatest difficulties of the post-war period and bringing the number of employees back to pre-war levels. But the next economic disaster was not long in coming. In the crisis year of 1923, which had sent the entire German economy into a tailspin, the company suffered from a significant order deficit. At the height of the crisis, in October 1923, price increases had spiralled completely out of control. With a nominal annual turnover of 153 quadrillion marks, J.H. Benecke had achieved an almost unreal value, which showed just how pressing the need for a currency reform was.

Fortunately, the introduction of the rentenmark managed to put an end to the currency crisis, though the company was left with many structural problems that required a fundamental strategic reorientation. This was because the classic oilcloth, which had been the mainstay of the company's success for so long, had in the meantime lost much of its popularity. What reflected this development very well was the downward trend in the number of manufacturers: of the former 90 German oilcloth producers, who had divided the market among themselves in 1907, only 40 enterprises remained in 1921.

In order to avoid a similar fate in the long term, convincing product innovations were now required. To this end, in the years around 1925, J.H. Benecke commenced serial production of leatherette on the basis of nitrocellulose. Handbags and haberdashery manufacturers were supplied, but the booming automotive industry also showed great interest. After all, artificial leather was not only practical, but also inexpensive. At the end of the twenties, Auto Union in particular was ordering plenty of leatherette for roofing and covering, especially for the shell of its DKW model. Artificial leather for use in roof lining as well as materials for interior components and car seat covers were also selling like hotcakes. What had begun as nothing more than a market segment of manageable size, quickly developed into a considerable revenue driver with

even greater future potential.

Around that time, however, the hopes for long-term stabilisation, which had occasionally burgeoned, were dashed by the global economic crisis. Sales also collapsed at Benecke and reached around two million reichsmarks at the beginning of the thirties, which amounted to only a half of the pre-crisis level. Again, short-time work was back on the table, which plunged many workingclass families into an existential crisis. Against this backdrop, the political situation intensified and the clashes between the political parties were fiercer than ever before. The immediate catchment area of the factory was no different, as the three-person-strong communist faction in the Vinnhorst municipal council had zeroed in on Benecke and other entrepreneurs. Pamphlets fuelled antagonism against the "capitalist exploiters".

Nevertheless, it is widely known that it was not the communists but the National Socialists whose success sealed the end of the Weimar Republic. Even Hanover quickly aligned itself with the new rulers, while the opposition forces could do little in the way of opposing the NSDAP. The pithy assurance of the February 1933 slogan "Hanover remains red" run by the longestablished socialist-democratic newspaper "Volkswille" published in Hanover, was eventually only supported by a handful of people. At the same time, the NSDAP also profited from the end of the global economic crisis and thus from the improvement in economic and social conditions that followed.

This upward trend was also evident at Benecke, so that in 1934 the turnover figures of the comparatively strong year 1924 could be reached once again. The relatively wide range of products allowed the company to consolidate this positive business development in the following years. The assortment included, for example, bed liners for general and military hospitals, inner liners used in the tire industry as well as artificial leather of all kinds for almost every industrial sector. Exports were of considerable importance too. Italy, Yugoslavia, the Netherlands and Switzerland were Benecke's main export

markets at the time.

Camouflage materials and PVC

Last but not least, research played an increasingly important role in the last few years of peacetime. In 1934, Benecke set up experimental laboratories in which the well-known chemist, Klaus Stoeckhert, began his investigation into Igelit – a soft PVC which would play an important role later on in the clothing industry as a substitute for leather. In the GDR, a slogan which translates along the lines of "If you don't like being wet, Igelit is what you must get" propelled it to the status of a much sought after, though not always so beloved, bestseller.

In addition to its importance for world history, the year 1939 was initially marked by yet another generational change for Benecke. After graduating from his Master of Engineering degree, Heinz Burgtorf joined the company as a partner, and in the same year, Wilhelm Burgtorf and Dr Carl Schwarz retired from senior management due to old age. With new management personnel and united forces, the production had to be quickly converted to wartime essentials. As an official armaments company, Benecke and its 400 employees now manufactured camouflage fabrics for the Wehrmacht and industry, mainly using leather substitutes. Inevitably, civilian customers, by contrast, had to be turned away empty-handed more and more frequently, which the "Chief of Operations", Otto Benecke, as was his official designation during the National Socialist era, did not like at all. He made sure that when the desperate requests from customers had to be refused, this was done in as much of a regretful tone as possible, with the letters sometimes almost resembling those exchanged between close family members. The conversion of production entailed additional construction work – right in the middle of the war. The construction of a new hall in 1943 eventually created space for the novel polyvinyl chloride (PVC), which was used during the Second World War

as a coating material for the production of artificial leather. Due to the selfsufficiency policy pursued by the National Socialists and the practical constraints of the war economy, the production of plastics was growing in size. Plastic production in Germany would increase from about 12,000 tonnes (1930) to about 200,000 tonnes (1943).

The testing of plastics, especially for use in shoes, is unfortunately linked with a dark chapter in the history of the factory in Vinnhorst. This is because, like all other leading artificial leather producers, Benecke commissioned wearer trials with a view to testing the quality of the materials in a practical setting. From 1940 onwards, these happened primarily in the concentration camp Sachsenhausen, in which a criminal division, the so-called "Command of the Shoe Runners", were ordered to do forced marches that many of the prisoners did not survive. However, what emerges from the letter correspondence from the year 1942 is that these wearer trials were not commissioned directly, but were mediated by the distribution centre for the carpet and upholstery industry, which would only inform Otto Benecke of "very thorough trials" taking place. Otto Benecke will probably have been oblivious as to where and under what conditions these trials were being conducted, though even today, the scarce number of surviving sources do not allow for any certainty in this respect.

What is undeniable, by contrast, is the strong social commitment with which the head of the company tried to influence in all political systems – from the Weimar Republic to the Federal Republic. This was no different in the Nazi era. Already at a young age, Otto Benecke became involved with the German People's Party, which was the to-go-to party for many entrepreneurs and industrialists due to its national liberal and business-friendly orientation. In May 1933, the bustling businessman then moved to the NSDAP, though still maintaining the old connections, for example, as a member of the internationally-oriented Rotary Club. This ambivalent attitude permeated his entire work, which oscillated between political adaptation, economic considerations and partial rebellion against National Socialist orders and views. For example, he prohibited the distribution of the "Stürmer" and the SS newspaper "Das Schwarze Corps", which were considered to be particularly anti-Semitic. He also campaigned for people of Jewish faith in different places and also by means of financial aid, and continued to employ social democrats and communists. Despite his party membership, he was not dedicated to Nazi ideology, which was later attested by many people.

Faced with the practical and economic constraints of the time, Otto Benecke tried to survive the last years of the war as well as possible, but could achieve less and less in view of the intensifying economy of scarcity. His intensive efforts were to no avail and urgently needed wood deliveries still did not take place. Thus, the dispatch of wares was compromised, since a large part of the production was shipped in wooden boxes.

In 1943, the first bombs hit the factory at Judenkirchhof. Initially, mainly glass was damaged, though due to the poor supply, only makeshift repairs could be carried out. As the war continued, the situation became more dramatic. The tense atmosphere was fraught with uncertainty, as everything seemed to be hanging by a thread. The air raids had intensified and now forced the Vinnhorst staff into the two air raid bunkers or into the small two-man bunkers, while the factory's fire brigade sometimes even had to march out into the local area or as far as the city to extinguish fires. One after another, bombs hit the fields around the factory premises, shaking the buildings. Fire bombs were particularly fearsome, with the gatehouse, the canteen, the dye house and the laboratory falling prey to them. Sometimes, entire operating units were a hair's breadth from being completely destroyed. Meanwhile, production did continue, though improvised and frequently interrupted by the air raid siren. For "OB", too, the impact of the war was "close to home": His family residence in Kleefeld, referred to as the "Benecke Castle" by the general public

and architectural circles alike, had a 35-meter-tall tower, which was converted into an observation post during the war. The task of anti-aircraft assistants stationed there was to raise the alarm about fires and enemy bombers.

The US invasion

Despite all the destruction in the course of the war, the production facilities remained largely intact. Within the framework of the "scorched earth" policy pursued by the National Socialists, wishing to reduce to a minimum the intact infrastructure left behind for the oncoming Allies, a few days before the American forces were due to march in, an order was issued to the management to prepare the machinery for blasting. But the team led by Otto Benecke invented a ruse: the power supply cable of the generator was cut through in such a way that it could never have been discovered by an outsider. Though this action seemed to have rendered the factory useless, it managed to save it. Fabrics, engines and other valuable assets of the company were evacuated to Deister and Heide – villages near Vinnhorst – laying a solid foundation for the company's later re-emergence.

When on 9th April 1945, the noise of battle coming from the north reached Vinnhorst, it finally happened: the arrival of the American forces, which some longed for and most dreaded, was now imminent. But no one could know what the immediate future would bring, and the rather unorthodox presence of the Americans, who arrived in Vinnhorst on 10th April, only added to the sense of uncertainty among corporate executives.

And so, at 9 o'clock in the morning, the sound of screeching brakes could be heard and a jeep pulled up in front of the factory gate. According to reports, a corpulent sergeant, accompanied by an entourage of five soldiers armed to the teeth, demanded to see the "Chief". Otto Benecke made himself available immediately, readily provided information, and tried to answer all open questions in the best feasible way. The Americans searched all the rooms for possible hidden firearms, emphasising the dramaticism of their presence by kicking in a few doors on their way. Finally, they allowed themselves a good sip from the bottle of spirits offered to them by the company's authorised officer, Fritz Groschwitz, who was at once seeking a positive basis for discussion. Thanks to this particular "basis for negotiation", the search was lenient and, to some extent, the two parties had now come a bit closer.

Things could have turned out much worse, but the circumstances of the first contact hinted that the company should not rely on Americans for effective protection. However, seeing as the framework conditions had developed unfavourably, the factory was in an urgent need of sustainable armed protection against external influences. This was because many Allied prisoners of war and foreign workers would avail themselves of the political and organisational vacuum to take revenge on the Germans. The well-known British military correspondent and historian, Leonard Mosley, noted in his diary at the time that "Hanover was a city of drunkenness and murder." Similarly, the long-serving chief editor of the "Acella Kurier", Joachim Hentze, appraised the situation around the factory in Vinnhorst. He stated: "If you dare to venture out of the factory gate, you simply do not know if you will ever return safely", which in retrospect proves to be a very poignant assessment.

In this extremely difficult situation, the understanding and humaneness with which the Italian POWs stationed within the factory had been treated now more than paid off. This is because after the Americans had marched in, the prisoners did not see it as an opportunity to take revenge, but instead, remained loyal to the company and settled down in the old barrack by the fire water pond. Under German-Italian command, with the Italian tricolour duly displayed at the gatehouse, the company would succeed in protecting itself from major plundering and arson, which had now become a daily occurrence elsewhere. According to accounts, both the German factory guards and the former prisoners of war knew all too well how to have fun. Additionally, some young Russian women were still staying at a nearby camp, who are said to have succumbed very quickly to the Italian charm. And so, almost night after night, the international group danced on the humble barrack floor to the jazz rhythms which were so popular at the time. This was also no secret to the Americans. Apparently, one day a lorry loaded with American soldiers pulled up to the factory gate. The GI, who was sitting behind the wheel, shouted in what was unmistakeably a broad American drawl: "Where's the Dancing Palace Vinnhorst?" An external perception that was probably not endorsed by Otto Benecke, who, though sociable, always strived for the best possible reputation of his company.

From 6th April 1945, all wheels at Benecke stood still. Working together, Otto Benecke and Heinz Burgtorf, whose acronym "HB" had now almost become his official term of address, did everything humanly possible to resume production. However, the external conditions initially allowed for little hope: the factory at Judenkirchhof was completely destroyed and there was no point in rebuilding it. The factory in Vinnhorst, though it had also suffered considerable damage, had better basic development prospects. Despite that, the telephone lines had been destroyed here too, motor vehicles confiscated, and urgently needed materials were no longer available. In almost all the buildings, bombs had smashed in the windows, exposing the machinery to the elements. Nevertheless, by the onset of winter 1945/46, the most urgently needed repairs had been completed, thus preventing any further damage.

To ensure consistent operation, on top of all that, the factory fire brigade had to be reactivated, which happened in November 1945. In one of the halfway intact barracks, the brigade met for a "boozy" (re-)inauguration ceremony. In the absence of glasses, the schnaps was served in a single glass passed around. Everyone was obliged to join in, even the head of the company. And so, what followed was not a surprise in the slightest, and the gathering came to a rather unusual end. According to reports, a party participant fell between balls of fabric, another stumbled into a paint barrel and a third, who could not find his way home, fell asleep in front of a neighbouring garage. Lucky that Otto Benecke had remained sober, and shut the place down at the end of the night with a hammer and nail.

In January 1946, the power supply had improved slightly, so that about 70 kWh could be consumed daily, which of course did not even come close to the real demand. This was a persistent problem that allowed for only modest production in 1947. First and foremost, bed liners for hospitals, materials for making bags and raincoats and upholstery fabrics for the automotive industry were manufactured. By 1948, 250 people were employed again, which was very important from the social integration point of view. In the context of the early stage of the reconstruction in Hanover, the companies proved to be "firstclass elements of society," as the long-time director of the Hanover City Archives, Dr Klaus Mlynek, summed up: "The identification of employees with their companies was one of the main sources of power for the economic recovery that started after the currency reform."

Chapter 5: 1950 – 1970

Economic miracle ... "On a growth trajectory as supplier"

Time for the economic miracle!

At Benecke, the often quoted "Stunde Null" was also more fiction than reality. Instead of a clear break as the concept would suggest, wartime and post-war periods were in seamless continuity, characterised by a shortage economy, in which there was not much room for scheduled production and orientation to consumer desires. However, the beginning of the new decade came with a fundamental change: thanks to the currency reform and the consolidation of political relations, the basis for the economic recovery of the young Federal Republic was laid and, also in Vinnhorst, the rapidly materialising "economic miracle" would soon be felt too.

Readily adapting to the new circumstances, towards the end of 1949, Otto Benecke had already sketched out a plan whereby the "planning bureaucrat" would be replaced by the "empowered consumer". After the years of command economy, the customer was once again at the centre of his entrepreneurial efforts. In practice, for the workforce, which had now grown to 500 employees, this meant full focus on demand, which had increased both quantitatively and qualitatively, having accumulated over a long period of non-consumption. As early as in 1949, the first Acella sales representatives turned out in full force to convince the clientele in the Western Zones of the quality of the new goods.

From the early 1950s, participation in trade fairs was also resumed. From 1951, the company would attend, for example, the most important German shoe fair in Pirmasens. By 1955, Benecke was represented at a total of 13 domestic and foreign trade fairs. Another important factor in the company's rise to the top was the resumption of its international relations. In 1951, Benecke opened a fancy export office in Jungfernstieg – a fancy street directly

on Hamburg's Binnenalster Lake. From there, "trading links" were subsequently forged around the world.

Undoubtedly, the basis for the growing success were the new PVC-based products that had almost completely superseded the older nitro faux leather by the middle of the decade. The "age of plastics", which was extensively debated in professional circles at the time, was no longer a scientific topos far removed from life, but instead, increasingly reflected the reality of life in post-war Germany. Here, the special properties of the plastic materials caught the spirit of the times: modern, hygienic, practical, but still comfortable and not too cold. Consequently, they optimally fitted into a "fast-moving time more inclined towards civilisation than culture," as the industrial chemist, Dr Klaus Stoeckhert, who worked at Benecke for some time, stated in his popular book "Kunststoffe ohne Geheimnis" ("Plastics without Mystery").

Without a strong brand, however, the successful development of the post-war years would hardly have been possible. Acella – a product introduced by Benecke back in 1895 – would gain popularity in the 1950s and 60s. One of the reasons for this were the innovative advertising measures which enabled the brand to anchor itself firmly in the consciousness of the German consumer.

An example: in October 1954, the young team led by advertising manager, Otto Metzger, managed to place an article about the company's top seller in the first issue of the women's magazine "Brigitte" – a feat that Benecke had every reason to feel proud of. Occasionally, it was possible to establish Acella as a so-called "deonym", similarly to such well-known brand names as Hoover, Sellotape or Velcro. And so, the catchy term "Acella" had become synonymous with plastic products in general and in particular with PVC films.

The positive consumer climate and the increasingly material value orientation of the society additionally facilitated the success of the company. Thus, following the "food and clothing craze", the West German consumer society was seized by the so-called "furnishing craze". Total spending in this area in 1956 reached about 8% of the total costs of living, which was the highest level in the post-war period. Benecke knew very well how to take advantage of this trend. Ever new home textile collections, some even according to designs by well-known artists, satisfied the desire for fresh colours and modern patterns among the customers who wished to furnish their apartments or newly built homes. In this regard, the company owes a lot of credit to its co-shareholder at the time, Dr Egon Schwarz, who was considered a pioneer in the design of modern plastic foils. He was also the first to use colour photographs in his patterns, which was seen as a highly interesting new development in the industry. Chic decor combined with effective utility models eventually created marketable products that consumers appreciated and, more importantly, bought in large numbers!

The good work of production, advertising and design departments was also reflected in the balance sheets: the total number of customers rose from 5,900 in 1953 to over 8,200 in 1955. By 1957, Benecke had produced 80,000 km of plastic film: "A broad plastic strip which could stretch around the circumference of the Earth twice," as proudly reported in the recently established company magazine, the 'Acella Kurier'.

The most visible expression of this success was the never-ending construction and modernisation that kept the company on its toes for many years. Conversions, extensions and new buildings were on the agenda, the lack of space seemed to be an almost chronic problem. The machinery also had to be constantly adapted to the latest requirements. Around the mid-1950s, all special machinery in operation was still being constructed in-house using the insights gained in the factory.

The demands on the employees were therefore high and some veteran Acellaner may well have been excused for looking at the ongoing changes with a dose of scepticism. However, extra pay allowances and rising social benefits went a long way in preventing sustained dissatisfaction. "A reasonable entrepreneur must be interested in good wages," declared Otto Benecke back in 1955, thus emphasising that the principles of social partnership that were traditionally so firmly anchored in the chemical industry were also upheld by his company.

The general trend towards shorter working hours had a similarly favourable effect on the working climate. For example, in 1957, the collective bargaining partners of the chemical industry had agreed to reduce weekly working hours from 48 to 45 hours without a reduction in pay. In 1965, the standard working hours were lowered again to 42.5 hours per week. At Benecke, too, the employees were actively involved in the optimisation of production processes very early on. Under the motto "Think – suggest – it's worth it!", the company's employee suggestion scheme was promoted and combined with attractive bonuses.

But the years of economic recovery also presented many challenges and difficulties – especially in the area of new product development. For a product to prevail on the market, an optimal match of the different production

components such as plasticisers, stabilizers, fillers and adhesives was required. Lengthy material testing phases were indispensable. In the early 1950s Benecke had only a small research team of three academics and twelve chemical-technical assistants who strove for the best possible results in what was "fumbling research" at best. Here, the "art of improvisation" was in the foreground, which Otto Benecke had emphasised in his four-point programme in 1954. In an attempt to overcome the initial quality deficiencies as well as the lack of experience with the new materials, the company started to look outside for expertise. This came either from the PVC producers or from the German Plastics Institute founded in Darmstadt in 1957, with the latter having now taken over the basic research for the entire plastics industry.

Roundabout the beginning of the 60s, what was previously a seller's market had finally become a buyer's market. There were now numerous competitors in the Plastics Industry Working Group, particularly in the segment of films, including Dynamit AG in Troisdorf, Coroplast in Wuppertal, Göppinger Kaliko and the Rheinische Gummi- und Celluloid-Fabrik in Mannheim. As a result, the customers had a larger choice of suppliers and, due to the continuously falling prices of their products, those in charge at Vinnhorst came under increasing pressure.

All the more important was the old quote by Henry Ford: "A man who stops advertising to save money is like a man who stops a clock to save time", also known as "No ad, you're dead!" in German popular culture. Especially in this field, J.H. Benecke was one step ahead of the competition. Acella therefore made its advertising debut on West German television in 1963 – in the format of an advertising "testimonial" as was popular at the time, with the jovial "people's actor", Hugo Lindinger, known to the television audience from countless productions. In addition, editorial publications also served to attract attention. The advertising department calculated, for example, that in the year 1964 about 450,000 DM was made in advertising savings by cleverly placing press articles. At the beginning of the 1970s, an average of two press publications were registered per day.

From B-to-C to B-to-B

In the course of the 1960s, the focus on the end customer gave way to an ever stronger focus on the processing industry. The automotive industry in particular had seen a steadily rising demand for synthetic leather products for high-quality interiors. At the end of the 1960s, each new German car already contained 50 kilograms of plastic (2018: approx. 100 kilograms), and every second West German car was equipped with plastics which had come out of Vinnhorst.

The product range had also become more complex, giving rise to a clearly visible process of diversification. The assortment now ranged from decoration foils, through shower curtains and shoe lining materials, all the way to upholstery covers of all sorts. The company now supplied, among others, car manufacturers, the furniture industry, construction industry, shoe industry and interior designers.

Due to the changed sales markets, combined with new products such as "Benelit" (furniture film) or "Roy" (artificial leather), the shareholders' meeting of 18th January 1965 decided to remove "Acella" from the company name: "J.H. Benecke Acella GmbH" thus became "J.H. Benecke Gesellschaft mit beschränkter Haftung" (Limited Liability Company), or also JHB for short. In addition, a newly developed logo gave Benecke a "modern corporate face", as it was called back then. "Acellans", as the staff would previously call themselves with a dose of pride, now became Benecke employees.

After the spatial capacities at Vinnhorst were completely exhausted in the early 1960s, an intensive search for new locations began. Marienau near Hameln was a good find, where in 1965 initially 75 employees started producing mainly floor coverings. Though it might seem modest, this was a first step towards expanding production, soon followed by a far more important one: in 1969, J.H. Benecke opened the 200,000 square-meter "Corovin Nonwoven Manufacture" on the outskirts of Peine. The intention behind "Corovin" was to make the company even better placed to serve the textile sector, especially the bedding and workwear industries.

The main advantage of locating production in Peine were the state subsidies from the "Border Region Aid Programme". The federal government contributed 25% of the total costs as a grant for investing in a structurally disadvantaged border region. It was also relatively easy to recruit new employees here. Amidst the severe mining crisis at the time, around 100 colliers from the decommissioned ore mining plant Peine/Telgte found new employment at Benecke. However, as it was yet to turn out, the biggest investment in the company's history to date was associated with considerable risk. The unfavourable economic conditions, which were almost the rule in the 70s, rendered the ambitious goals impossible to achieve. Anyhow, Corovin initially seemed to have great potential as it now made it possible to convert thermoplastic raw materials (polypropylene, polyamide, polyester, etc.) into a full-fledged textile fabric in a continuous process. Other benefits of Corovin included its virtually unlimited scope of application and the favourable cost-benefit ratio. The key areas of application of nonwoven fabrics were toiletries, interior design, work clothing and the construction industry.

Meanwhile, Benecke's course of expansion was no longer just limited to Germany: "internationalisation" and "globalisation" – the buzzwords of the 1980s and 1990s – were already being promoted in the company as early as the mid-20th century. First of all, thanks to numerous trading branches around the world, the products "Made in Vinnhorst" gained global recognition.

In 1960, the production site of the company Manhusa was finally built near Barcelona, with Benecke playing a decisive role in the planning, construction and set-up. Under the brand name "ivela", the Catalan-produced films were distributed throughout the Iberian Peninsula.

The Times They Are A-Changin'

The end of the 60s was a noticeably more turbulent time. Politically and culturally, the course was set for change, but also the economic conditions had become more uncertain. The first recession phase in the history of the Federal Republic in 1966/67 also took its toll on Benecke. Due to significant declines in orders in the automotive industry, 1967 was a year of saving and short-time work, and there were even redundancies on the agenda. For a short time, the workforce had to be reduced by almost 15%. In these years, the effect of the

increasing dependency on the large automotive companies was actually twofold: at the turn of the year 1967/68, the situation had reversed yet again and the employees had to take extra shifts to meet the sudden increase in demand.

However, in spite of all the economic difficulties, when the 250th anniversary of the company arrived, it was clear: Benecke had managed to overcome the legacy of the war and the post-war period and to become one of Europe's leading plastics processing companies at a breathtaking speed. In 1969, on the occasion of the jubilee celebrations, which were held at the same time as the celebrations to mark Otto Benecke's 50 years in the company, a confident statement was made: "The pioneer of 1718," read an concomitant company brochure, "has become the pacesetter of a world that is changing favourably". Though this exaggerated corporate self-portrayal may have been rather uncharacteristic of the otherwise so "measured" management, with 2,700 employees in Vinnhorst and Marienau and an annual turnover of more than 200 million DM in 1969, the company had every reason to look back on its achievements with pride. In addition, J.H. Benecke also played an increasingly important role on the international arena. Between 1965 and 1970, exports tripled, while the sales area was expanded to a total of 80 countries. Vinnhorst, too, had become more international and in 1969, a total of 285 foreign "guest workers" were employed there. In other words, changes were felt everywhere in the company, and the following decade was intended to boost these developments even more.

Chapter 6: 1970 – 1993

Diversification ... "New values, new markets"

Management changes & energy crisis

The beginning of the new decade was a striking turning point in many respects. First of all, in terms of leadership responsibility: after a long illness, Otto Benecke passed away on New Year's Eve 1970, almost exactly 200 years after the business had been taken over by his ancestor Ernst Philipp Benecke. At the same time, the two other Managing Directors, Heinrich Burgtorf and Dr Egon Schwarz, stepped back from active duties, though they remained with the company as shareholders. It was primarily Heinz Burgtorf who took over the role of a father figure until his death in 1978, while the company management went on to the next generation and was taken over by Johann Heinrich Benecke.

The year 1971 also proved to be fateful. It burnt itself into the collective memory of the company due to the bus tragedy of 31st August. On that day, a factory bus, which was supposed to take the workers to their midday shift, collided head-on with a gravel transporter. Nine people died and thirteen employees were seriously injured. An unbelievable tragedy for everyone involved, and yet, followed by a weather disaster in the Spanish partner company only three weeks later. With almost apocalyptic rage, on 20th September 1971, within a period of four hours, more than 300 litres of water per square meter lashed down on the district of Sant Celoni and thus on the Manhusa factory area. Fortunately, no one died or was injured in this case but the elemental force of nature brought the operation to a standstill for a longer time.

In addition, those in charge at Vinnhorst were increasingly worried about the economic conditions. At the beginning of the 1970s, the general raw material

and energy crisis hit JHB twice – on the sales side, production restrictions in the automotive industry, which at that time was the most important customer, curtailed the company's economic success; on the purchasing side, the shortage of crude oil led to a rise in the price of PVC and significantly higher prices for suppliers. In the meantime, the price pressure on the company's products had by no means subsided, while the wage increases associated with rising inflation had a very negative impact too. In view of production increasing by only 3.3% and personnel costs per employee simultaneously growing by 13.8% – as the management had so meticulously calculated and presented to the employees in 1970 – there was no doubt that urgent action was needed. "Only a drastic remedy could help us get back on track," announced the Benecke Report to its readers, at the same time giving them a foretaste of the changes that were to come.

Shortly afterwards, Johann Heinrich Benecke, who was acting as spokesman for the management, defined the strategic direction for the following years: "The primary task would be to examine the profitability and earning capacity of each item in the portfolio, and to remove the weakest revenue drivers from the range," said the young company boss. Not an easy task, seeing as back then around 10,000 different articles were already being produced annually. Now, more than ever before, the company had to rely on forward-looking market research, planned development work, and project implementation with structured networks in order to better meet the ever-changing consumer demands. At the same time, the decision-makers increasingly focused their range on upscale products, as they hardly stood any chance at all in the battle for market share in the low-price classes against the very cheap foils produced in Korea and Taiwan. Restructuring also included measures to reduce dependence on the automotive industry and to extend the company's presence in other markets. The developers were working hard on new products: for example, the "Bocato soft" foam coating – equally suitable for bath-rooms and upholstery – became a great success. Not least, Benecke had high hopes for the leather goods and luggage industry, which capacity shortages had forced them to discontinue only a few years earlier. Conquering new markets also meant opening up to the socialist states. In parallel to the political thaw, the developments at JHB also showed that it was time for the two "camps" to become closer – the "Iron Curtain" had become more permeable. In 1971, the first exhibition of Benecke products took place in Prague, whereas in 1972 a delegation of well-known Polish producers visited the factory in Vinnhorst.

However, the many activities aimed at helping the company recover were only able to go as far as to mitigate its operational problems. This is because the economic environment was consistently in crisis mode and the industry lamented the continuing high cost and price pressures. As a result, Benecke experienced a significant reduction in its workforce too – from around 3,000 employees in 1973 to 2,200 employees in 1977. In 1983, the number of staffers would once again fall to around 1,650, while sales had completely frozen at about 300 million DM over the whole decade. Benecke seemed to have hit the "growth ceiling" – a concept discussed very eagerly by society at large.

The 1970s were not just a decade of crisis but also a decade of transformation in which new standards of value were sought and new alternatives to the existing consumer society had begun emerging. The company motto that the Benecke Report had so confidently proclaimed back in 1968, according to which chemicals and plastics would secure our future, was enjoying less and less unquestioned popular support. Internationally, but especially in the West German public sphere, environmental protection started to play an increasingly important role. For the chemical industry, this development initially presented a great challenge. The Chemical Industry Association was well aware of the fact that, previously a widely acclaimed engine of West German economic growth, the industry had now been demoted to a ,problem child' to be scrutinised with a sceptical eye. The Association recognised this process self-critically as early as 1971.

Conservation and a shift in values

From then on, there was much more discussion around both the production conditions and the products themselves. At the product level, doubts were being raised about the PVC used by Benecke as its environmentally harmful additives had become the focus of scientific interest. The production process at JHB was also problematic from the point of view of environmental protection, due to the plasticiser vapours from the gelling and calendering systems, and the solvent-containing exhaust air from the printing and finishing machines. In addition, the safe disposal of liquid and paste-like waste, such as ink residues and paints, also proved to be particularly difficult.

The problems were therefore undeniable and required effective countermeasures, which is something that Benecke began to tackle early on. Already at the beginning of the 1970s, the company installed extraction systems for the plasticiser vapours as well as catalytic afterburners for the gelling machines. A new waste container system also made it possible to dispose of the production waste in a more environmentally-friendly manner, with the concept becoming almost like a mantra instilled in the employees. In 1973, the company management even declared environmental protection to be the "existential question of this half of our century" – but without passing on a chance to emphasise its pioneering role for its own industry. Self-perception and external perception differed considerably in this case. "The Benecke factory stinks of Acella," was a frequently expressed reproach from the immediate vicinity of the site, which would yet again play an important role in later years.

Within the company, the tide began to change and the times of unquestioned approval were coming to an end. While senior management at the beginning of the 1950s had still praised "the patriarchal relationship between workers and entrepreneurs", the new buzzwords were now "self-responsibility", "collaboration" and "teamwork". A collaborative style of leadership, endorsed by the "Committee for Social Enterprise Design" of the Confederation of German Employers' Associations and approved and expressly affirmed by J.H. Benecke, appeared to leave little room for traditional hierarchical authority relations. Of course, this cultural change was not decreed overnight. And so, despite all the well-sounding promises, many senior executives would continue to display a "master of the house" mentality for years to come.

The sometimes rough tone in the company and the fact that its 250-year history had done a lot in the way of consolidating its image as a company dominated by men, also gave the editors of the company magazin a reason for well-intentioned reprimand. In doing so, the editors saw themselves to be fulfilling a duty towards the increasing numbers of women entering the company, successively conquering the last still remaining bastions of the male working world. "Women working by the vice" was an image that was thus far only really associated with the disdained "Eastern Zone". However, women would soon show their male colleagues their limits. "The finishing work performed by girls," said the instructors at JHB in acknowledgement, "is usually more accurate, true to size, and cleaner than that of boys".

Plc instead of family business

West German foreign trade continued to increase in the 1980s, and in 1986, the Federal Republic of Germany became the "export world champion" for the first time – no country in the world exported a higher total value of goods. Corresponding to this macroeconomic development, efforts were also made at Benecke to focus more on non-European customers, especially in the USA and Japan. Within two decades, the company's export quota increased from about 15% to about 40%. In this context, international cooperation played an increasingly important role. In addition to the already existing traditional business relationships in more than 80 countries around the world, some of which had their own distribution companies, crossborder joint ventures were now beginning to emerge.

Here, it was possible to build on a wealth of experience originating from the company's participation in the Spanish Manhusa, and now also from the cooperation with Gerland, which was once the French market leader in PVC flooring. The partnership with the Japanese Inoac Group, signed in 1986, thus establishing Benoac Fertigteile GmbH, represented another important step in the mutual transfer of know-how in the field of high quality products for vehicle

interiors. Subsequently, surface materials for car dashboards, so-called "slush skins", were mainly manufactured in Peine. In the course of the second half of the 1980s, one after another, several subsidiary companies were established, contributing to the expansion of the product range: first, in 1987, Keroy Technologie GmbH, specialising in the production of dressed leather; in 1988, Beneform GmbH followed, which mainly produced mountable skylights for motor vehicles; and finally, in 1989, Allibert Benecke was founded in Peine, which dealt with injection moulding technology for the automotive sector.

In the meantime, the entrepreneurial families Burgtorf and Benecke had successively withdrawn from active business. In 1985, Wolfgang Polensky was the first non-family manager to be appointed Chairman of the Management Board, replacing the departing Johann Heinrich Benecke in this role. As shareholders, the traditional names continued to dominate and jointly held 100% of the shares in J.H. Benecke. In 1987 there were major changes in this respect too. With the founding of a joint-stock company (AG) and DG Bank entering the picture, the company opened to new investors, just like many other family businesses which were forced to do so due to progressive globalisation and fiercer competition. Following the reduction of the shares to 52.5% (Johann Heinrich Benecke) and 22.4% (Burgtorf Group), the newly founded joint-stock company initially remained family-run, though only three years later, the two entrepreneurial dynasties sold their shares in full to Deutsche Genossenschaftsbank (DG Bank). Therefore, J.H. Benecke as a family business became history, in keeping with the trend of the time in which many observers considered this ownership structure to be a thing of the past.

As the environmental movement intensified, given new impetus by the Chernobyl disaster and further institutionalised by the Greens now being represented in the parliament, ecological issues once again took priority. Consequently, Benecke also came under barrage from the local Green Alternative Electoral List as well as some local citizen groups. In addition to pollutant emissions, the odour nuisance remained a bone of contention for the neighbourhood. CEO Werner Wagner, together with the Benecke Emissions Protection Officer, sought a discussion with the critics and promised to further reduce the odour nuisance. But the "Furious Citizens of Vinnhorst" were not so easy to appease. "Even house builders are subject to stricter regulations than that chemistry bloke Benecke," bawled the Green Alternative Electoral List Councilman and later Lower Saxony State Secretary Peter Bulle, while a civic initiative in Vahrenheide directed a complaint against the company. Occasionally, even temporary shutdowns were demanded.

The various actions did, of course, have an impact on the company. "Environment Crackdown in Vinnhorst – Prosecutors are after Benecke" proclaimed the "Neue Presse" on 2nd March 1989, sensationally reporting in a rather tabloid-like style about the joint action of the prosecution, police and trade inspectorate. However, the spectacular action brought little in the way of tangible outcomes. Several investigators from the labour inspectorate were also unable to find any evidence of adverse health effects in the immediate surroundings of the company. After all, numerous old systems had already been modernised back in 1986 with a focus on environmental technology, so that even the Head of the Environment Department had to admit: "The whole hoo-ha comes a year too late. Benecke is now doing what a good company has to do." In order to reduce solvent emissions and to further improve the environmental protection measures, a further 30 million DM was subsequently invested in four thermal exhaust air purification systems, a Combu-Changer and a biofilter system.

Chapter 7: 1993 - 2018

Globalisation ... "The value of better interiors"

A breakthrough with Kaliko

Despite high rationalisation investments and a significant reduction in staff to 1,300 employees, Benecke was still making losses at the beginning of the new decade. In 1990, the annual deficit totalled a worrying 13.8 million DM. As the company's export share was approximately 45%, the poor economic climate in the main western buyer countries as well as the foreign exchange shortages in the former Eastern Bloc countries had a major impact. Subsequently, the hitherto so crisis-proof German carmakers began to falter and experienced one of their worst crises. In 1993 alone, the Volkswagen Group posted a loss of the equivalent of one billion euro. The fact that the automotive industry was Benecke's primary outlet did not make things easier.

Building on the experiences of two economically difficult decades and of an acute recession phase, everyone was clear that in order to make the company future-proof in the long term, the strategic partnerships of the past were obviously no longer sufficient. The multiple challenges of the market could only be countered by means of a large merger. After intensive research, a solution that was very interesting from an economic perspective finally materialised: a merger with Göppinger Kaliko, which was already hot on Benecke's heels. The film manufacturing specialist from Eislingen, with around 1,150 employees, generated sales of around 270 million DM in 1992. At the same time, Benecke achieved sales of around 380 million DM and employed 1,250 staff members.

When, on 1st July 1993, the two companies with longest-standing traditions in the industry finally gave each other the go-ahead, even without the merger, their letterheads and business papers would have had to be updated anyway. This is because on this very day the five-digit postcodes were introduced in Germany. And similarly to the old Federal Post, which was shedding its old structures just before the end of the millenium, Benecke-Kaliko AG was also getting ready for the leap into the new millennium. Although "Deutsche Genossenschaftsbank" remained on board with a 49.9% stake, Continental AG was now in the lead with 50.1% of the shares.

Synergies, a concept so eagerly invoked during mergers, also resulted in significant sales growth in the case of Benecke-Kaliko. Under the new management of Manfred Wennemer, who later became CEO of Continental AG, it was finally possible to achieve a profit of just under 15 million DM. Benecke as a company may indeed have lost some of its sovereignty, though in return, it regained its competitiveness.

By contrast, the workforce at ContiTech AG were able to develop a new form of individual responsibility. The contemporary magic formula was "group work" – a work organisation concept that would transfer responsibility for work processes or products onto entire groups of employees. Group work, which at that time was experiencing a boom, especially in the automotive and supply industries, was welcomed by both employers and employees, as both sides seemed to benefit: the former achieved the desired increase in productivity due to the hoped-for innovations, whereas the latter now had the opportunity to actively participate in work design, which further humanised the world of work.

Drawing from the internationalisation tendencies in the preceding decades, Benecke-Kaliko finally emerged as a global player at the end of the 1990s. The expansion of the international network progressed at a rapid pace. First was the acquisition of a stake in the North American "Sandusky Vinyl Products Corporation" in 1996, which had a portfolio comparable to that of Benecke-Kaliko AG. In Asia and Latin America, the company was now much more active too: licensing agreements in India, production cooperation in Thailand, joint ventures in Brazil – the range of worldwide activities became more extensive and diverse.

The new company director, Dr Hans Meyer, who had been at the helm of Benecke-Kaliko since 1998, also continued to focus on the automotive industry: "We are concentrating on the areas where we can be at the forefront of the market," was his strategic motto, which hardly allowed any other options at that time. This is because in the late 1990s, the car industry regularly set new production records. The "fireworks of new models", which the Association of the Automotive Industry postulated in its 1998 Annual Report, also unlocked high growth potential for the supplier industry. Nevertheless, what was preferred at Benecke-Kaliko was a rather strict interpretation of the above maxim, confining the company to only a few areas: only those which offered excellent perspectives. Since the chances of assuming a leading international position in the segment of moulded headlining were seen as non-existent in the foreseeable future, the factories in Überherrn (600 employees) and Peine (Beneform GmbH, 50 employees) were sold to Johnson Controls Inc. in 1999, luckily, with none of the employees losing their jobs. One year later, the sale of the subsidiary Bamberger Kaliko GmbH followed, which specialised, among other things, in materials for window blinds and technical textiles. At the same time, the production was resorted. Eislingen became the sole location for thermoplastic polyolefins (TPO), with a new production line ensuring a threefold increase in its production capacity. In Hanover, which now also became the centre of company administration, PVC films, furniture films and PVC-free shoe uppers were produced.

"The 21st century will be fully synthetic," prophesied the Benecke Report at the beginning of the 1970s. "Our houses will no longer be built of stone, concrete or wood, instead, they will be assembled in a few hours from prefabricated plastic elements." This was a utopia which was not least motivated by the economic benefits that it would entail, however, by the turn of the millennium, this hope was clearly eclipsed by reality – a reality in which plastics were still a very niche building material, and the "fully synthetic" age was still a long time away. Nevertheless, there were enough reasons to look forward to the new millennium and the future with optimism. The turnover curve of Benecke-Kaliko AG was clearly on the up, the order books were full and the entire company was – in the contemporary language of the time – "well positioned" all round. Over the years, BK even developed into one of the most profitable companies in the entire Continental Group. In 2003, the corporation posted annual sales of €324 million, taking second place in the ranking of ContiTech Holding. Therefore, the decision of the parent company to take over the entire shares in Benecke-Kaliko AG from DG Bank, implemented shortly beforehand, seemed more than justified.

The positive business development was mainly driven by the numerous product innovations that had been brought to market since the early 1990s. Here, the introduction of TEPEO® in 1992 had already set an important milestone. This was because the lighter and softer TEPEO® foils offered significant advantages over conventional PVC foils and were gratefully accepted by all major car manufacturers. Another innovation boost was the development of Benova® for the automotive industry in 1999 – a halogen-free synthetic leather made of polyurethane. Finally, in 2003, the extremely

scratch-resistant TEPEO2® compact film followed, whose short development times made it ideally suited to the fast-paced trends of car manufacturers and enabled wider processing windows as well as customer-oriented design of colour and feel.

By that time, Benecke-Kaliko had achieved a very strong market position in the European automotive industry. For further growth, it was only logical to focus on non-European markets. So, in 2005, the joint venture "Benecke Changshun AutoTrim Ltd." was founded in partnership with the Chinese plastics distributor "Jiangsu Changshun International Trading Co.", facilitating a significant expansion of sales opportunities in Asia. "With this new factory, we have followed in the footsteps of our customers such as VW and General Motors and have come to China," said the new CEO, Dr Dirk Leiss, at the opening of the production plant northwest of Shanghai, confirming the fundamental strategy of many automotive suppliers who followed the trails blazed by their clients.

The US car market, though it had now lost its global leadership position to China, still continued to offer considerable growth potential, especially since tastes in the US had changed and the days of plain interiors were over. These were good conditions for a premium provider such as Benecke-Kaliko, who recognised the signs of the times and promoted its globalisation strategy through yet another milestone. Thanks to the construction of the production facility in San Luis Potosí, Mexico, in 2008, the company was now better placed to supply the USA and the entire NAFTA region with high-quality surface materials faster and in a more targeted manner. The factory construction, admittedly, was a real adventure, supported on a temporary basis by over 40 colleagues from Hanover and Eislingen. The extraordinary location of the new factory at just short of 2,000 meters above sea level turned out to be a major challenge. Due to the local conditions, many chemical reactions did not proceed as intended in the formulas used at the German production sites. Added to this were machine malfunctions, missing spare parts and staff shortages. But after several trial-and-error attempts, the issues were resolved. Already in the year 2010, the premium manufacturers of the automotive industry were impressed in every aspect, giving the new factory excellent marks in the very stringent audit by Mercedes-Benz.

Designed Green

At the beginning of 2008, Germany's industrial economy was robust, as determined by the Ifo Business Climate Index. At Benecke, too, the mood was fundamentally positive and the outlook for the year as a whole gave little cause for concern, even in the eyes of the sceptics. However, the collapse of the investment bank Lehman Brothers on 15th September 2008 made a mockery of all previous forecasts, all in one go. Real Estate Crisis – Banking Crisis – Economic Crisis: in quick succession, the global economy showed just how vulnerable it was and the global shock wave spared hardly any economic actors. At the height of the crisis, Benecke-Kaliko experienced a huge drop in sales of up to 50% on the same months of the previous year. Short-time work at almost all locations, as well as continuous professional development courses, clean-ups and maintenance work were some of the measures taken by the employees to try to weather the low-order period as best they could. The times of self-responsibility and sacrifice had come, one could not hope

for external help considering the extent of the crisis. The "car scrappage premium", despite being chosen the word of the year, could do little in the way of helping, since the premium brands which the company supplied hardly benefited from the new environmental bonus.

And on the topic of the environment: it was now well over 100 years ago that Benecke first started to deal with issues of environmental protection. Over the decades, the subject had gained plenty of significance, and it was no longer just a cost factor but an important competitive factor too. In 2010, when the economic crisis was largely overcome, CEO Dr Leiss finally declared sustainability to be the company's primary objective. The motto "Designed Green" gave the triad of "people, the environment and the climate" absolute top priority.

The practical implementation of this claim involved further innovations in the area of production. Benecke-Kaliko not only provided pleasant and health-neutral interiors with innovative surface materials certified to "Oeko-Tex Standard 100" but also made an active contribution to climate protection through the use of light covering materials in vehicles. Last but not least, natural resources played an increasingly important role in terms of sustainability. In 2011, for example, Benecke-Kaliko won customers over with its "Acella® Eco Natural" – a product made from up to 50% renewable raw materials. In addition, over a period of ten years, the company succeeded in halving its emissions in the air, reducing its water consumption by one third and its electricity consumption by one fifth. And it was long since any odour complaints from the neighbourhood, which were not uncommon in earlier years, had last been raised.

Meanwhile, the automotive industry remained at the very centre of the company's strategy. Back in 2008, Benecke-Kaliko acquired the automotive film business from Alkor GmbH, a subsidiary of RENOLIT AG. In return, BK sold its furniture film business to RENOLIT. In 2010, Benoac Fertigteile GmbH was sold to Johnson Controls in order to further optimise the company's product portfolio and focus entirely on its core business of films for the automotive industry and other industrial applications. This was because in this regard, constant innovations were required, driven by Benecke-Kaliko in a very targeted manner, also using the new digital possibilities. Following the launch of scratch-resistant materials in 2013, Surfvis[™] 3D software offered the possibility of photo-realistic computer-aided simulation of the fabrication of components down to the smallest detail. The following year, the so-called gradient surface technology was successfully applied in production for the first time, which allowed the realisation of a two-colour surface design on only one single material web.

Benecke-Hornschuch Surface Group

Also in the following years, further innovations were introduced. Committed to the "Designed Green" maxim, Benecke-Kaliko began to compile data on the ecological impact and carbon footprint of its products in order to achieve an objective comparison of the environmental friendliness of its products and those of the competitors. In addition, product families with higher ageing resistance (to light, heat, chemical and mechanical factors), combined with improved appearance and feel, were brought to the market. Thanks to the extensive innovation activity and the supporting factor of a solid automotive industry, sales grew by 10% in 2013, 20% in 2014 and around 17.5% in 2015. Meanwhile, the existing sites were running at their maximum capacities and there was a pressing need to relieve this strain. In 2014, BK took over two factories of the Belgian Mecaseat Group in Pamplona, Spain and in Wągrowiec, Poland, thereby strengthening its presence in the European market. Signs of continued growth were also to be seen in China. In January 2015, the foundation stone was laid for a second factory in Changzhou – the largest investment in the history of Benecke-Kaliko up to this time amounting to approx. 40 million euro. Here too, the company guideline "Designed Green" applied. From the end of 2015, around 100 employees produced the low-emission car interior material Acella® Eco in the group's most modern plant. The global network of factories was driven by efficiency and organisation programmes which allowed its structures to be adapted to global growth.

In 2017, another historic milestone followed: the largest acquisition in Benecke's nearly 300-year history, which was primarily intended to strengthen its global business beyond the automotive industry. The acquisition of Konrad Hornschuch AG from Weissbach in Baden-Wurttemberg not only increased the number of employees by about 1,800 in one fell swoop but at the same time significantly expanded the company's expertise in films and synthetic leather for the furniture and construction industries. In a sense, this was a move "back to its roots", as after all, the company was previously an important player in the furniture industry for decades. It was also possible to establish a direct link with the Dynactiv Surfaces portfolio introduced back in 2015, which included a total of eight new product groups for industries outside the automotive sector. Accordingly, the industry applications were multi-faceted and ranged from hotels, restaurants and hospitals to yachts and airplanes. In addition to the improved market position, those responsible for the merger with their long-standing competitor from Weissbach expected a further boost in creativity around surface design as well as in research and development. At the end of the day, when combined, the new company boasted a total of over 400 years of expertise in the production of intelligent surface solutions. Last but not least, the acquisition would also prove to have a massive impact on the sales figures: for the first time, the annual turnover of the Benecke-Hornschuch Surface Group exceeded 1 billion euro in 2017 – a quantum leap in the long history of this world market leader in automotive interior films.

Today, 300 years after the company was founded, the Hanover location still stands as one of the oldest manufacturing plants in Germany. Its story is inextricably linked to the history of the automobile and yet extends far beyond that. From the "oilcloth factory in front of the stone gate to Hanover" to the "Benecke-Hornschuch Surface Group", the refinement of surfaces has remained the decisive continuum. However, what counts in any given company is not just its age alone but also its performance and the constant readiness to modernise. For centuries, countless employees have ensured that the production of sophisticated flat products has been optimised and adapted to the quality requirements of customers at all times. Today, just as in the past, the product's appearance, feel, aesthetics and durability continue to play a decisive role.

In order for quality and innovation to remain at the top of the agenda in the future, a global, interdisciplinary team are working relentlessly to develop new surface solutions. All production sites are committed to the guiding principle of "The Value of Better Interiors", which creates the best conditions for further growth in connection with environmentally friendly products. In this way, the

company, in keeping with the spirit of its first owner, will continue "growing from year to year" and, thus, the success story of one of the most important plastics pioneers will be carried on into the future!