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60 YEARS OF GROWTH AND EXTRUSION

PRIMO TURNS 60

As Primo turned 60 in 2019, the enterprise has become one of the largest extruders of custom-made plastic profiles in Europe, serving a wide range of industries. Primo's anniversary is, however, also a celebration of the many companies that joined us along the way and have now become an integral part of the organisation. For the story of Primo is, to a high degree, the sum of the stories of the 28 businesses that joined us over the years. In that perspective, Primo is a far older company than the 60 years since its inception.

In this anniversary book, we will celebrate the various companies and their approaches to plastic extrusion from the very beginning. In Denmark, Primo was one of the extrusion pioneers, but the companies acquired in Norway and Sweden were extruding even earlier – sometimes as the very first in their respective countries. We are telling their stories here along with Primo's story, and we describe decade by decade how Primo has grown to become an international organisation.

A lot has happened since Primo's 50th anniversary – and the anniversary book we published to mark it. We have recovered from the global financial crisis and have built a strong organisation that continues to develop new methods and processes. For that reason, we will also describe the new markets, the new ways to organise the enterprise and our product development.

Sixty years ago, only a few knew the meaning of words like PVC, plastics and polymers, and no one imagined that plastic pollution would ever be a problem. In recent years, however, the increased focus on plastic pollution has led to increased demands and expectations on the plastic industry by lawmakers, partners, customers and consumers alike. That is why we invest in recycling and participate in international programmes that aim to reduce the amount of plastics that end up in nature. The green agenda is in full swing, and we take responsibility for reducing environmental impacts. Plastics are not to be used for all purposes, but when used optimally, plastics can be an essential tool in the efforts to improve the environment. For example, plastics can be an environmentally friendly alternative to more carbon-intensive raw materials such as steel, wood and aluminium. We want to do our part – and we look forward to another sixty years.

Fleming Grunnet

June 2020

THE HISTORY OF PRIMO

THE HISTORY OF PLASTIC

1832
PVC is accidentally discovered by Henri Victor Regnault.

1870
Celluloid is the first type of plastic to be used commercially.

Svenska Bindgarnsfarbriken AB is founded.
1889

1910
Bakelite is invented by Leo Baekeland.

Primo's founder, Chresten Jensen, is born in the village Arnum in Southern Jutland, Denmark.
1917

1927
Waldo Semon develops a method for industrial production of PVC to replace rubber.

1930
Polyester is invented.

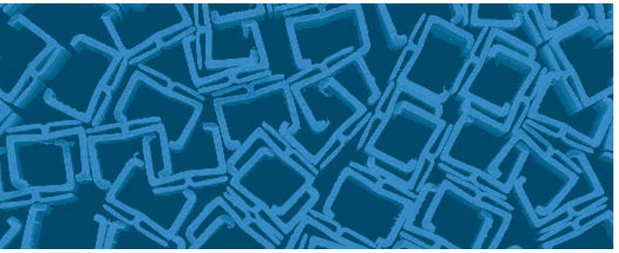
1930
The first vinyl record is made.

1931
Industrial production of polystyrene begins in Germany.

1933
Polyethylene is developed in England, and industrial production of PVC is launched.

Fleming Grunnet is born in Bramming.
1939

1939
Nylon stockings are marketed for the first time.



THE BIRTH OF PLASTICS IN SCANDINAVIA

The 1940s – 1950s

A PLASTICS PIONEER'S ACCOUNT

Knut Anderlund is 90 years old, lives in Scania and is one of the first Scandinavians to experiment with plastic extrusion.

"I have worked with extrusion since 1952. Throughout the years, I have followed the development of plastics and extrusion in Sweden and the other Scandinavian countries at close range," says Knut Anderlund, managing director of his own extrusion company, which he founded in 1999.

Plastic producer Knut Anderlund.

FROM SMALL WORKSHOPS TO GLOBAL ENTERPRISES

In the following chapters, Knut Anderlund offers his perspective on how small Scandinavian workshops developed over the past 50 to 70 years into what would later become one of the most significant plastics and extrusion companies in Northern Europe. For in the infancy of plastics extrusion, it was by no means a given that the extrusion pioneers in Norway, Sweden and Denmark were going to be successful and – over time – become part of Primo.

1939-45
Plastic becomes increasingly prevalent, and is used for war materials during the Second World War.

THE SOLUTION TO A LAUNDRY PROBLEM

The year is 1952. At the rope factory Svenska Bindgarnsfabriken in Malmö, Sweden, the 22-year-old, newly hired tool technician Knut Anderlund is pondering how he can solve a problem that is bothering homemakers daily throughout the country.

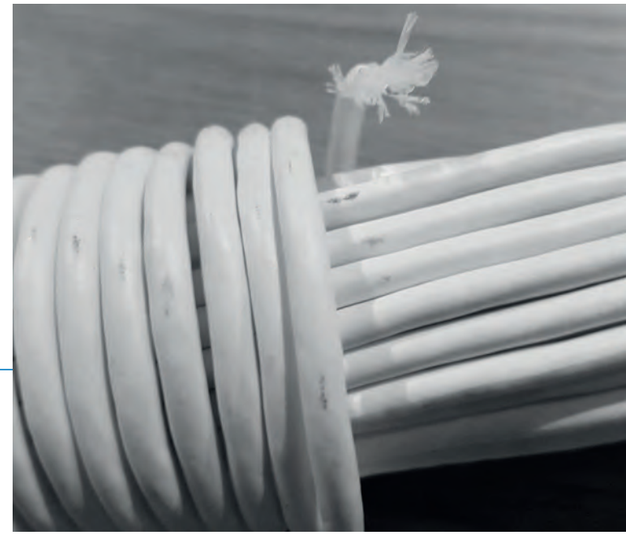
"Your newly washed white laundry could be purely white when you were about to hang it up. But it would get dirty as soon as you hung it up to dry on the clotheslines made of sisal fibres we produced," remembers Knut Anderlund.

When he began working at Svenska Bindgarnsfabriken, Knut Anderlund did not expect to be working with plastics. But he had heard about an ingenious Norwegian who had taught himself to extrude plastics in a repurposed meat mincer.

"That made me wonder whether that could be a solution to coat the clothesline with extruded plastic. That way, you could avoid the dirt and humidity that would stick to the sisal fibres," explains Knut Anderlund.

Therefore, he teamed up with a couple of colleagues to build the company's first plastic machine to cover the sisal clothesline with a coat of plastic.

"The experiment was challenging in more ways than one. Not only were we to build a machine capable of producing a product with the right shape. We also needed to determine which plastics recipe would be best suited to produce a durable product with the right properties," says Knut Anderlund.



Plastic-coated clothesline.

THE EXTRUSION FINALLY BEARS FRUIT

To find the right type of material, Knut Anderlund and his colleagues asked the Swedish chemical company KemaNobel for advice. Together, the two companies found the plastic material with the right structure and devised the optimal way to produce the clotheslines.

From then onwards, the production of the plastic-covered clotheslines geared up. They were sold in large rolls to wholesalers across Scandinavia who bundled the clotheslines and sold them to shops in their respective countries. During the following years, millions of meters of the popular clotheslines were sold all over Scandinavia. Plastics had proven to be valuable both as a material and as a basis for entrepreneurship as it had awoken an interest in plastics among small craftsmen across Scandinavia. Thus, a whole new industry was born.

1941
Polyethylene terephthalate (PET) is invented.

Mason and architect Chresten Jensen establishes his own architect firm in the village Bramming in Western Jutland to renovate the local hotel.

1946

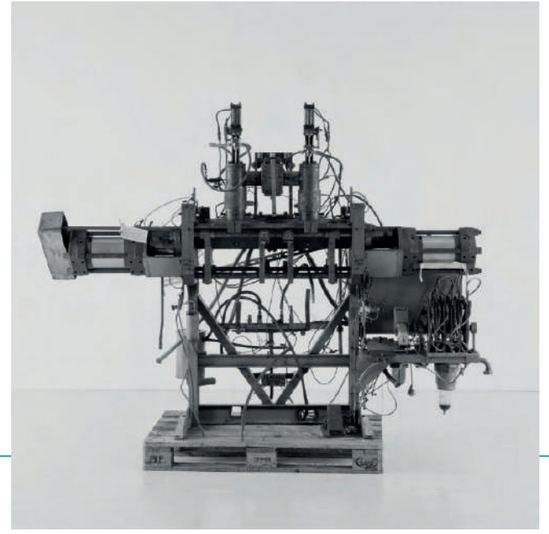
> When I was hired at Svenska Bindgarnsfabriken, I had never worked with plastics before. It was completely random that I ended up working with extrusion during my entire work life.
>
> Knut Anderlund, Polybase

Plastic-coated clothesline.

THE MEAT MINCER BEHIND THE FIRST PLASTICS FEAT

In Jan Henrik Aasheim's home in the small Norwegian town of Notodden stands a meat mincer with an extraordinary story. For it was that exact tool his father Johan Aasheim used to introduce production of extruded plastics in Scandinavia in 1946.

"It was precisely their experiments that inspired me to cover Svenska Bindgarnsfabrikens sisal clotheslines with extruded plastic," says Knut Anderlund.



An early extruder from Norsk Extruding to produce plastic bottles.

Chresten Jensen buys the local lumber yard in Tistrup and moves to Tistrup with his wife and two children – Fleming and Yrsa.

1947

> What was supposed to be pen shafts, I had to carefully pull out gradually as it came out of the machines. I pulled and pulled, while manually cutting the appropriate lengths and then immediately continue pulling.

Olav Dahle, an employee at Norsk Extruding in 1948, quoted in the book "Fra eksperiment til hjørnestensbedrift", (From Experiment to Cornerstone Company) 1998.

The story of Scandinavian plastics began shortly after the Second World War when factory worker Johan Aasheim returned home to Norway wearing a British Uniform. In his luggage, he brought a small batch of the relatively newly discovered type of plastic called polyethylene, which he melted in small baking tins at his home in Notodden in the Telemark region of Norway.

But Johan Aasheim had bigger ambitions with this new material. He had heard of so-called extruders, machines that create profiles and pipes made of plastics in any shape or form by pressing heated plastic out of various dies. An extruder works approximately like a meat mincer that presses out the meat in thin shreds. Perhaps that is why Johan Aasheim used a meat mincer for his early extrusion experiments. He warmed up the polyethylene from England and used the engine from his wife's sewing machine to press it through the meat mincer. Encouraged by the outcome, he went on to use various dies to change the shape of plastic pressed out of the mincer.

Johan Aasheim was so excited by his experiments that, in 1946, he took a leave from his work at the local rayon factory. He spent the following two years to develop his first actual extruder. Looking back, he later described the machine development process as "a difficult jigsaw". Nonetheless, in 1948, Johan Aasheim succeeded in creating "Extruder 1". With this machine, he founded his company Norsk Extruding, and thus he became the first person in Norway to extrude plastic profiles.

Later on, Norsk Extruding became the first Norwegian company to produce blow-moulded plastic bottles but also moved on to make pens and supply the car industry with a range of products. In 2008, Norsk Extruding was acquired by Danish Primo.

FROM MASON AND ARCHITECT TO EXTRUSION MANUFACTURER

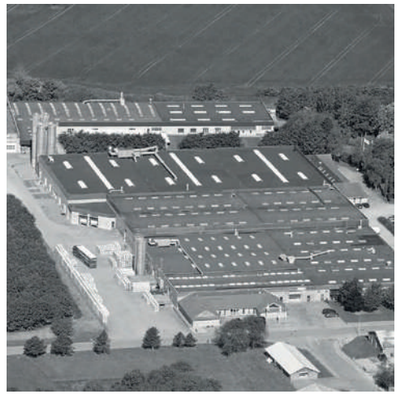
Both Johan Aasheim in Norway and Knut Anderlund in Sweden were extruding before the founder of the Danish Primo. Nevertheless, it was his company that wound up as the leading extrusion manufacturer, not just in Scandinavia, but in Northern Europe as a whole.

In 1946, in the village of Tistrup in Western Denmark, a young, entrepreneurial mason and architect settled down. Newly graduated during the war, Chresten Jensen worked in the architect firm C.F. Møller. During the years after the war, Chresten Jensen worked as an independent architect in Bramming, a town close to Tistrup. But building materials were hard to come by. For that reason, he was always on the hunt for new opportunities to secure a steady stream of materials.

As a part of that strategy, Chresten Jensen convinced a timber merchant in Tistrup to make an unusual barter – Chresten Jensen's patrician's villa in Bramming in exchange for the lumber yard and the house on the grounds of the lumberyard. The timber merchant accepted the swap, and shortly after Chresten Jensen and his family settled in their new home in the timber store. As Chresten Jensen's business grew steadily busier, his need for building materials and storage space grew larger.

To meet those needs, Chresten Jensen bought the buildings of a former slaughterhouse in 1951 and used his new property to produce concrete foundation blocks used for the construction of housing and stables. Having secured stable access to wood and concrete blocks, these two vital building materials enabled Chresten Jensen to both draw and construct buildings. This ability accelerated the success of his business.

Primos beginning in Tistrup - and Primo in Tistrup today.



> The will to persevere is a prerequisite for succes.
>
> Founder of Primo, Chresten Jensen's motto

A PLASTIC COMPANY BY ACCIDENT

Chresten Jensen regularly visited trade fairs, notably in Germany, to get ideas for his building projects. But one day in the late 1950s, despite his limited English-speaking skills, he decided to visit a plastic exposition in Olympia Hall in London. Chresten Jensen was so fascinated by what he saw at the exhibition that he bought a Battenfeld extruder at the expo and installed it in the former slaughterhouse.

Since then, Chresten Jensen and a couple of employees often worked through the night when they experimented with their first plastic profile production. They were not the only ones trying their luck with this kind of endeavour. All over Denmark, entrepreneurial companies were making their own extrusion experiments, with mixed results. They all started from scratch with little knowledge of what might work and what would not. Plastics were a new and mostly unknown kind of material, and far from all fabrication experiments went well.

Eventually, their hard work got rewarded, and the first accomplished extrusion profile in Tistrup was a cove-shaped profile for wall to floor joints. It is a standard profile that became popular with master carpenters. At first, Chresten Jensen and his team pulled the cove-shaped profiles out of the extrusion machines using a rope as if it were a calf being born. Similarly, the physical limits of the rooms did not deter the team's determination. When they experimented with profiles that were longer than the length of the old slaughterhouse, they simply solved the problem by making a hole in the wall.

As their experience grew, the pioneers gained enough experience to replace their first tentative experiments and do-it-yourself methods with large-scale production of quality standard profiles, which were sold at lumberyards and flooring wholesalers. As demand for the profiles grew, Chresten Jensen bought more extruders for his business, and in 1959 he founded Primo.

1947
Danish plastics manufacturers form the trade association Plastic-Sammenslutningen.

Chresten Jensen was a perfectionist within what was possible. He hated slovenliness. His passion was the actual production rather than office work.

Helge Borg, former managing director of Primo

Svenska Bindgarnsfabrikens Aktiebolag (SBA) was the first company in Sweden to produce ropes and fishing nets at an industrial level. Bindgarnsfabriken was founded in Lund, Sweden, in 1847, and in 1889 it became an incorporated company. In 1897, SBA expanded its business and opened a factory in Limhamn near Malmö. In 1918, the headquarters was placed in Malmö.

At the two factories, SBA produced everything between large towing ropes, twine and yarn, and SBA quickly became one of the largest companies within its field in Scandinavia. But it was the company's clotheslines that marked the beginning of the company's successful experience with plastic coating.

A homemade extruder consisting of a meat mincer driven by a sewing machine engine is used by the plastic company Norsk Extruding in Notodden, Norway.

1948

Primo's first extruder, a Battenfeld.

1949

LEGO's first brick made of plastic is produced.

An exhibition displaying products from Svenska Bindgarnsfabriken in Malmö.

THE FIRST EXTRUSION-BASED PRODUCTION TAKES OFF

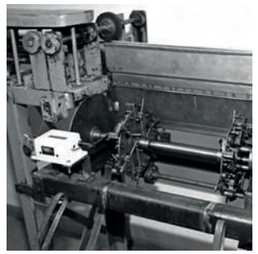
The 1950s – 1960s

MASSIVE INCREASE IN THE NUMBER OF EXTRUDERS

In the 1960s, the production of plastic products, and particularly extrusion, was at full swing. In Denmark, the number of plastics companies grew from about 70 during the 1950s to about 200 during the 1960s. The development in Sweden and Norway followed the same pattern. Not surprisingly, many Scandinavian plastics companies that are market leaders today boosted their production during this period.

Entrepreneurs who ventured to explore new ways to use plastics had good chances of success. Mainly because they now had access to new types of plastics and a better quality of plastics, notably from the USA. But they also benefitted from the favourable economic conditions and the prosperity growth in Western societies.

Moreover, plastics entrepreneurs had ample access to suitable production facilities for a fair price in the Scandinavian villages and less populated areas. These favourable conditions were due to a fortunate combination of circumstances: The general urbanisation and the consolidation of companies in the food industry freed up many production premises. Notably, the mergers of local dairy production companies and butcheries furthered easy access to cheap industrial facilities suited for plastic production and extrusion. It was precisely the early stages of these developments that Chresten Jensen took advantage of when he bought a defunct butchery in 1951.



Around 70 plastic companies in Denmark.
1950

SUCCESS DUE TO PERSEVERANCE AND PATIENCE

Departing from the first experiments and production of small-batch profiles sold to carpenters, Chresten Jensen and his staff were ready to expand their product assortment. Gradually, they were able to produce high-quality standard profiles in sufficiently large amounts to be able to sell them to lumberyards and floor distributors.

CHALLENGED BY BUREAUCRACY AND SHORTAGE OF RAW MATERIALS

During the years after the war and into the 1950s, the industrial development was in full swing in Scandinavia and the rest of Europe. But raw materials and machines were hard to come by. Moreover, notably, the Norwegian plastics industry was further challenged by import restrictions imposed by the Norwegian authorities on both machines for plasticware production and plastics from Germany. Germany was the leading producer of both plastics and machines during those years, so the import restrictions were a painful impediment to success for the Norwegian plastics industry. Because of the import restrictions, the Norwegian plastics industry would spend months – sometimes even years – in a tug of war with the Norwegian authorities before they would get permission to import extrusion machines and raw materials from Germany. To avoid this process, many Norwegian plastics companies turned to England instead to buy the extrusion machines and plastics they needed to keep their businesses going.

BURGEONING EXTRUSION IN THE CONSTRUCTION INDUSTRY

In Sweden, Svenska Bindgarnsfabriken continued to sell abundant quantities of extruded clotheslines. But during the 1960s, the company gradually expanded into extruding profiles for the construction industry.

“For that purpose, we established a separate company by the name Sonesson Plast, which was responsible for plastics production. Here, we produced profiles, tubes, pipes, and monofilament of extruded plastics”, says Knut Anderlund. Eventually, the parent company, Svenska Bindgarnsfabriken, was sold off, allowing Sonesson Plast to focus on extrusion of plastic products.

PLASTICS PRODUCTION BECOMES PREVALENT AND BLOSSOMS

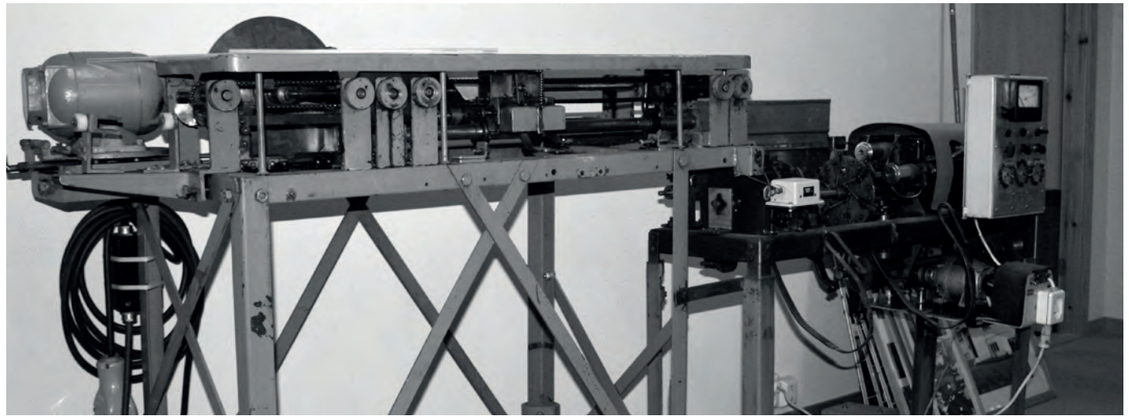
During the 1950s, and particularly during the 1960s, plastics used for packaging had its heyday, second only to the use of plastics in the construction industry. It was also during the 1960s that disposable plastics were introduced in the medical sector, gradually replacing the time-consuming manual cleansing of medical equipment made of glass, metal, and rubber. The extrusion industry was also booming during this period. As extrusion companies grew more numerous, so did the number of extruders within each company and the number of people employed in the industry.

Primo was no exception. In 1963, just four years after its foundation, Primo expanded the factory, bought more extruders, and instituted first two shifts, then three shifts to keep up with the demand for standard profiles for the construction industry. Thus, the plastics industry illustrated how the Nordic countries had evolved from being agricultural to industrial countries.

Initially, Primo's sales procedure consisted of doorstep selling its standard profiles such as skirting boards and mouldings to lumberyards and hardware stores. Eventually, Primo managed to sell their profiles to larger customers such as home improvement retailers and hardware wholesale associations.

Shop-in-shop displays of assorted mouldings in home improvement stores have made Primo a well-known consumer brand.

> We replaced large German companies that previously had been selling the same types of goods in Denmark. Maybe we were too cheap for the German competitors, or maybe they thought that the Danish market had become too small for them. In any case, we got away with that move quite easily.
>
> Hege Borg, former Managing Director of Primo



Old Norwegian extruder.

CONSTRUCTION BOOM AND POPULAR PLASTIC HOUSEHOLD GOODS

Just like Denmark, Sweden and Norway experienced a home construction boom during the 1950s and 1960s. Consequently, the demand for household goods and interior design items was essentially insatiable.

In Norway, Norsk Extruding benefitted particularly from a high demand for Rotaflex-products such as lampshades made of plastic, which Norsk Extruding became the sole manufacturer and distributor of in Norway in 1953. At the time, 12 Norsk Extruding employees were producing Rotaflex-products, and the production continued well into the 1980s.

> We felt as if we were pioneers of the construction boom. After all, we were the ones who were making the new products.
>
> Knut Anderlund

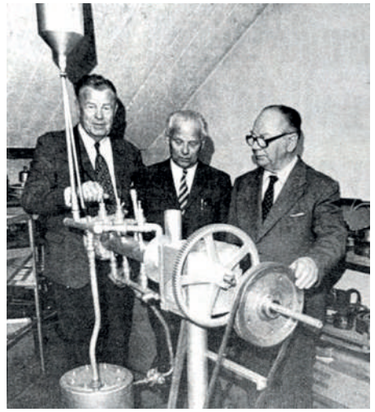
Chresten Jensen buys the buildings of a former slaughterhouse and initiates the production of concrete foundation blocks for housing and stables.

1951

FROM CABLES CORDS TO HULA HOOPS

Both Norwegian and Swedish extrusion companies coated tonnes of cables from the 1950s and onwards. Norsk Kabelfabrikk was a major cable producer in Norway, while Sonesson Plast dominated the production of extruded cables in Sweden.

In Sweden, however, Sonesson Plast produced an ever-increasing amount of extruded construction profiles, and soon this became the company's main product. During this period, Sonesson Plast sold up to 6500 tonnes of extruded construction profiles a year, including mouldings for doors, window frames, and walls.



Norwegian Extruding founder Johan Aasheim (front) transformed a meat grinder into the first extruder in the Nordic region. Here he is photographed with Extruder 1.

> Within various units of the army, one soldier would be responsible for bringing a phone at training exercises. Attached to the phone was a roll of 100 meters of cable. This meant that the soldier who was responsible for carrying the phone would also have to carry that roll on his back during the entire training. We made one million metres of those cables for the military.
>
> Knut Anderlund

COMPLEMENTARY PARTNERSHIP BEHIND CONSOLIDATION AND GROWTH IN PRIMO

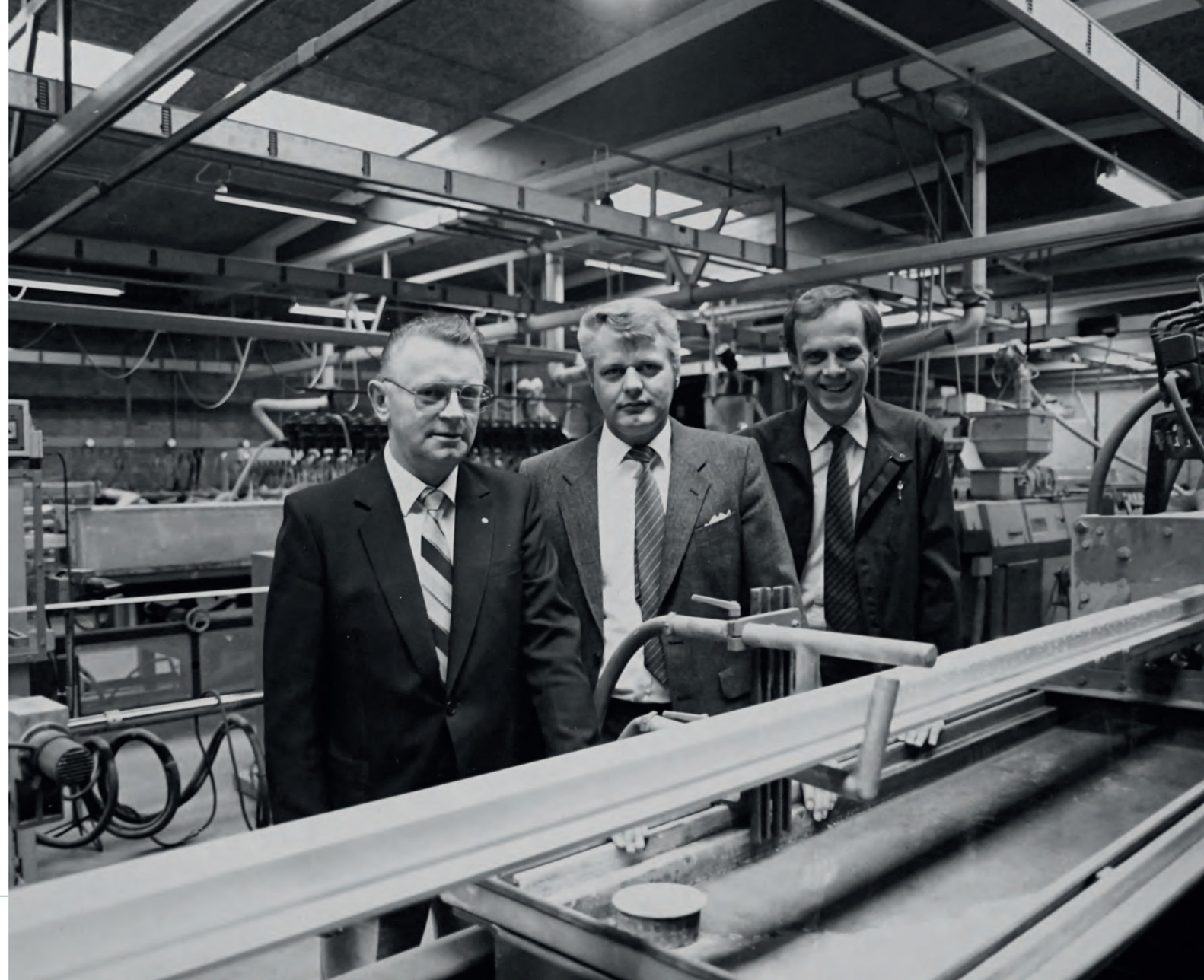
Primo's success is to a large extent due to two key employees whom Chresten Jensen hired five years after he founded Primo. The two men would turn out to be of crucial importance to the development of Primo in the following decades. One of them was the 25-year-old office clerk and son of a schoolteacher, Helge Borg. He was the third employee at the office besides Chresten Jensen and a bookkeeper and became responsible for communications in Danish and English at Primo.

The other new employee was Chresten Jensen's son, Fleming Grunnet. The son was somewhat reluctant when his father called him during his exams at the business school in Aarhus. But Chresten Jensen had an urgent reason to require his son to join the company at this exact time. As it turned out, the existing bookkeeper had committed fraud against the company, and the budget was in disarray after Chresten Jensen had fired him. That is why Chresten Jensen needed Fleming Grunnet to get the finances in order.

Helge Borg and the other employees in Primo welcomed the founder's son and quickly found out that it was easy to talk with him.

> Plastics paved the way for an abundance of opportunities. We were able to make all sorts of stuff! For example, we sold lots of hula hoops with stripes in different colours.

Knut Anderlund



Bigger and better machines made it easier for Primo to produce more specialised products.

> I wasn't keen on returning home at that time. After all, I knew nothing about plastics, and I was planning on going to Germany to learn more. But father said I was the only scribe who was good with numbers.
>
> Fleming Grunnet

The combination of Helge Borg's linguistic skills and Fleming Grunnet's proficiency in numbers was just one of many ways the two young men complemented each other. Helge Borg was structured and diplomatic, popular with the staff, and he made sure the daily operations ran smoothly. Fleming Grunnet was energetic, extrovert and enterprising.

Consequently, Fleming Grunnet was increasingly tasked with customer outreach and was thriving among the production staff, from whom he kept increasing his knowledge of plastics and extrusion. Despite their different temperaments, the two men had tremendous respect for one another's qualities, and their close cooperation was an essential asset for Primo.

Fleming Grunnet and Helge Borg having a beer in the cafeteria at the Tistup facilities in 2019.

> Even though he was Chresten Jensen's son, Fleming Grunnet was on an equal footing with the rest of us when he was hired because he didn't know anything about plastics either.
>
> Helge Borg

The timber company Wiik & Höglund begins producing plastic.

1953

The first extrusion-based production takes off

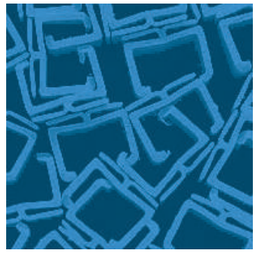
GRUNNET LEAVES HIS MARK ON PRIMO

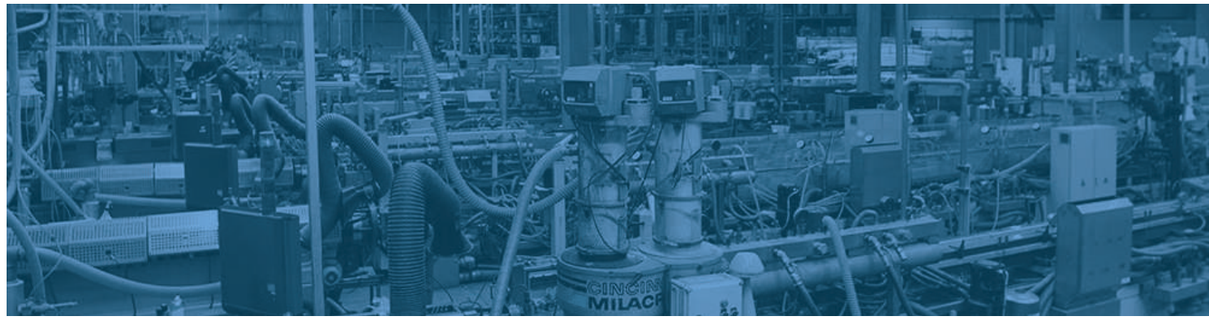
The combination of the two young men's talents and Chresten Jensen's entrepreneurial spirit became a solid foundation for the expansion of the company. As demand kept increasing, Primo expanded its production capacity incrementally in the expectation of continuing growth.

The more Helge Borg and Fleming Grunnet settled into their roles at Primo, Chresten Jensen scaled down his attendance at the company, thus increasing the scope for his son to leave his mark on the operations.

Before the arrival of Fleming Grunnet, Chresten Jensen would fund expansions of his business through bank loans and overdraft facilities with his bank. This method made Primo vulnerable to potential economic downturns, and the interest on these loans posed a financial drain on the company. Fleming Grunnet had a different approach. Based on his mantra "consolidation before growth", Fleming Grunnet set about to put Primo's finances in order. Gradually, he succeeded in settling overdraft facilities and expensive bank loans, thus making Primo less dependent on the bank. At the same time, Fleming Grunnet optimised and streamlined administrative work procedures to ensure that the resources were used efficiently.

This way, Fleming Grunnet strengthened the foundation for Primo's capacity to grow and primed it for the upswings and downturns of the world economy in the decade to come.





> Fleming Grunnet made sure we cut our coat according to our cloth. Therefore, investments were sparse during those years. But then we solidified our finances, and the overdraft facility was paid back.
>
> Helge Borg

1954
Polypropylene enters the market.

Chresten Jensen's first extruder is installed in an annex to the slaughterhouse.
1958

Primo-Plast A/S is founded.
1959

BREAKING OUT OF ITS SHELL – NEW PRODUCTS AND NEW INDUSTRIES

The 1960s – 1980s

PLASTIC'S TRIUMPHAL PROGRESS ACROSS THE GLOBE

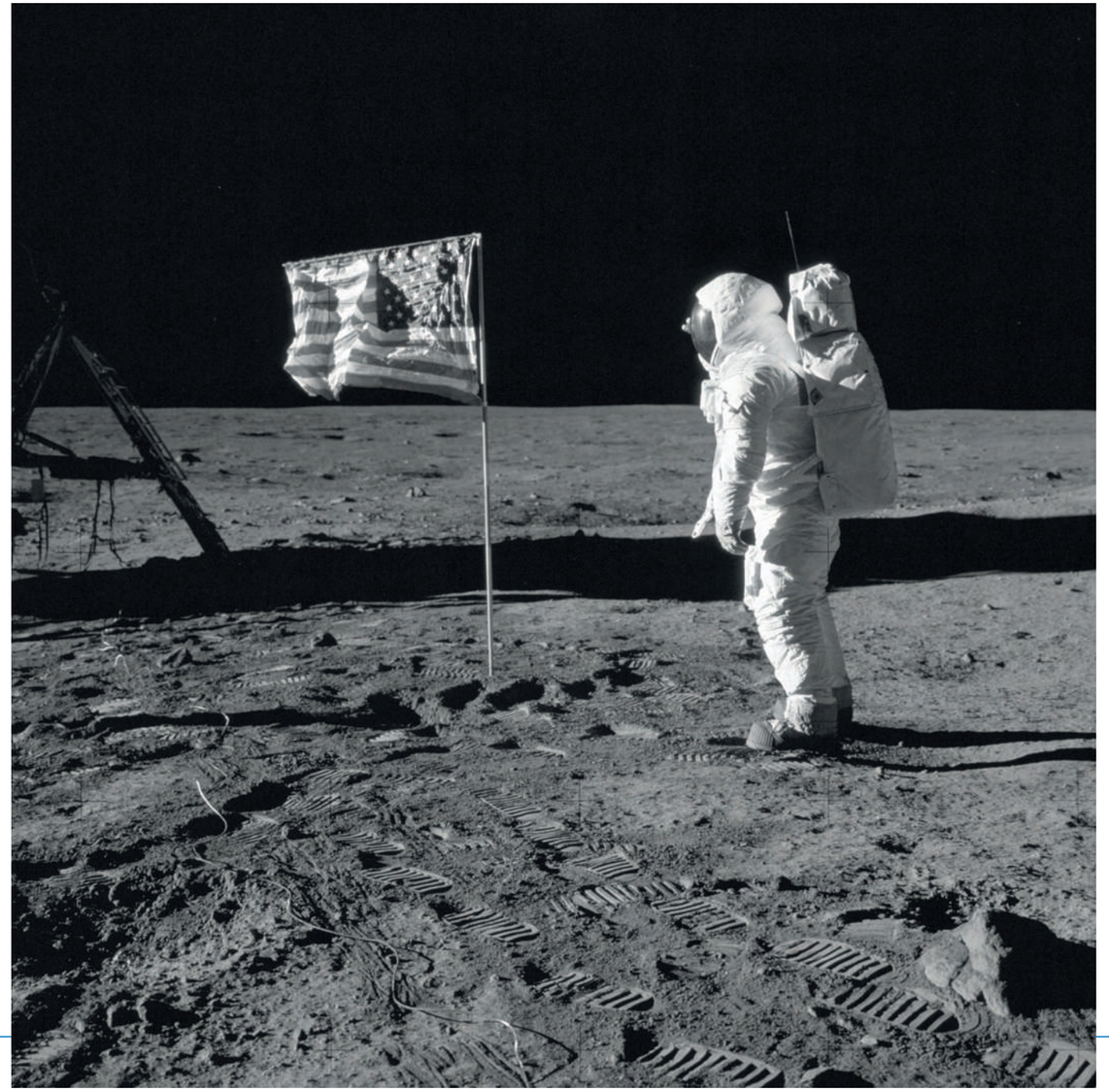
During the 1960s and 1970s, all of Scandinavia experienced a construction boom, prompted by economic growth in the industrialised world. Consequently, the demand for building materials made of plastics grew and thus bolstered the plastics and extrusion industry. This development spurred the development of new types of plastic materials.

New types of materials paved the way for such widely diverse products as plastic bottles and nylon stockings.

Plastic became the very symbol of the consumer society and the modern industrial revolution. Even in the Oscar-winning film "The Graduate", the young main character famously got the well-intentioned advice that he only needed to remember one word when planning his future career – plastics!

And when Neil Armstrong planted a Stars and Stripes on the Moon by the end of the 1960s, the flag was made of nylon, naturally.

1962
A.P. Møller builds a factory in Denmark to produce plastic raw materials (polyethylene).



Astronaut Buzz Aldrin plants the American flag on the Moon. The flag is made of nylon, and it is still standing where he left it.

NEW PRODUCTS FOR THE CONSTRUCTION INDUSTRY – AND NEW INDUSTRIES

Throughout the 1960s and 1970s, the construction boom and the public excitement around plastic products rubbed off on the revenue of the Scandinavian extrusion industry. Sales grew within existing sectors, and new business areas opened, such as the white goods and car industries.

These favourable conditions enticed members of the construction industry to experiment with products made of new kinds of material. Thus, they produced mouldings and window frames made of plastics and building materials composed of mixed materials, also called composites.

DURABLE LIKE PLASTIC, BEAUTIFUL LIKE WOOD

During the 1970s, the Swedish Sonesson Plast cooperated with the Swedish chemical company KemaNobel to produce windows with both mouldings and frames made of extruded plastics. In 1972, the cooperation between two companies led to Sonesson Plast's invention of a composite material consisting of a mix of PVC and 30% sawdust from wood. The same year, Sonesson Plast applied to patent the product in the USA and UK. The following year, Sonesson Plast's patent on its composite product was granted and appeared on the patent lists in both countries.

"We used the composite material for a multitude of mouldings, for example, for shower cubicles, cladding, garden gates, windows and floor tiles. The sawdust made the mouldings look like they were made of pure wood, and many customers wanted that," remembers Knut Anderlund. In fact, he has used the composite material for various items in his own home.

"In my country cottage the window frames are made of plastic, but the cladding is made of composite with sawdust. So is my garden gate. Both look as if they were new even though they are 40 years old. And it has not been necessary to paint them even once," says Knut Anderlund.

During the same period, Sonesson Plast was contacted by a somewhat surprising customer that wanted cladding made of the company's composite material – the Norwegian seaport Stavanger's old part of town called Gamla Stan.

"It was a great nuisance for the town having to paint the facades every second year, you see. Now, forty years later, the cladding of the old houses in Gamla Stan still looks great – without a stroke of paint!" says Knut Anderlund.

The weatherproof wood-like building material was not the last composite material Sonesson Plast invented for the construction industry.

COMPOSITE CONTAINING FOAM FOR WINDOW FRAMES

At Sonesson Plast, Knut Anderlund often had new ideas, and together with an employee, he invented a moulding mixing PVC with a foaming agent.

"An ordinary moulding made of PVC has a density of 1.4. It weighs more than water and thus can sink. But by adding a foaming agent in the mix, we lowered the density to 0.6-0.7 while maintaining the high quality and shape. We were also the first to do that in Scandinavia," says Knut Anderlund. Another advantage of the foam composite is that you can saw and hammer nails in the material without risking that it cracks. For that reason, it became a popular material. Furthermore, it was also a significantly cheaper product because it required much less raw material.

When KemaNobel, the biggest chemistry enterprise at the time, bought Sonesson Plast in the 1970s, Knut Anderlund joined KemaNobel. At KemaNobel's headquarters in Stockholm, he got a position as development manager for the window production. "It was fun working at KemaNobel. At the time, my wife was a member of the Swedish Parliament, so we were living right at the parliament island in the centre of Stockholm, the Swedish capital. Those were good times," reminisces Knut Anderlund. It was also during the 1970s that he met two Danes, Chresten Jensen and Fleming Grunnet from Primo. They were visiting KemaNobel in the hopes of doing business there.

THE BUYERS ARE SCEPTICAL DESPITE PROVEN ADVANTAGES

KemaNobel expected plastic window frames to be a significant success. But as it turned out, the Swedes preferred wooden window frames. The customers in Norway and Finland agreed with the Swedish customers. In these heavily forested countries, most people favoured using materials that were naturally occurring in their homeland.

"There are 3.500 plastic window frames in Sweden that still are in mint condition. But the Swedes never really took the plastic window frames to heart, so we stopped producing them," explains Knut Anderlund.

To prove the strengths of the plastic window, KemaNobel carried out a full-scale experiment at the Faculty of Engineering at Lund University. The experiment compared window frames made of plastic, aluminium and wood, respectively.

"KemaNobel exposed the three different windows to a standard fire safety test in a furnished room and lit the fire from below to see which window would handle the fire the best. The plastic window frame won, precisely as they had expected. The glass was still in the frame, entirely intact. But in the wooden-framed window, the glass was gone, and in the metal-framed window, the glass had cracked. The reason why the plastic window frame withstood the fire exposure is that the plastic became so hot that it shrank and increased its grip on the glass. Nevertheless, people didn't believe in the result," sighs Knut Anderlund.

SWEDISH-NORWEGIAN COOPERATION

Through the years, KemaNobel has gone through a few name changes. In 1970 it went by Kema Nord, and during the 1970s, the Swedish chemical giant embarked on a partnership with Norsk Hydro, which had also expanded its scope into plastic production as early as in 1951. In the 1970s, Norsk Hydro was seeking to buy plastic companies abroad. But first, Norsk Hydro bought a large part of the Norwegian plastic company Vefi in 1967.

Another large player in the Norwegian plastics industry during the 1960s and 1970s was the paint production company Jotun. Just like Denofa-Lilleborg and the paint and varnish company Alg Bjercke, Jotun was one of the first three companies in Norway to produce unsaturated polyester, mainly used in boat production. Jotun's new focus on unsaturated polyester turned out to be fruitful to such a degree that the company managed to expand throughout the Nordic market during the 1970s.

Whereas plastic companies in Sweden and Norway collaborated closely or expanded outside their national borders in the 1970s, Danish Primo focused on strengthening its position on the Danish market.

In Copenhagen, trams are phased out and replaced by busses, which lands Primo large orders of gaskets and mouldings for bus windows and doors.

1964

SUPPLIER FOR DANISH FRIDGES

In Denmark, Primo began its extrusion adventure by making standard profiles for the construction industry. During the 1960s, it broadened its scope and produced a steadily increasing amount of customised profiles. At first, Primo made customised profiles for the refrigerator industry, which consisted of eight factories in Denmark at the time. According to Helge Borg, who was a key employee in Primo from 1964 till 2000, this new group of customers presented Primo's staff with new demands of an increased level of professionalism. To that end, Primo hired engineers and accepted its first toolmaker interns.

"Now we had to base our work on drawings and measures from the customer. To that end, we hired engineers. As our knowledge grew, we were able to support and consult our customers and present suggestions. It was one of the most crucial changes in Primo's development during that period. The company had matured and reached a new developmental stage." says Helge Borg

Brødrene Gram – Gram Bros. – was the first client from the refrigerator manufacturing industry, which remained a crucial customer segment until the white goods industry left Denmark in favour of low-wage countries such as Turkey and Russia in the 1990s. When Primo's production for the refrigerator manufacturing industry peaked, 60 of its employees were dedicated to producing frames for refrigerators.

THE BIG BUS ORDER FOR COPENHAGEN

In 1964, several bus manufacturing companies contacted Primo to order customised profiles for doors and windows of hundreds of city busses. The reason behind the bus orders was that Copenhagen was replacing the old trams with busses and remove tracks from the roads and cables from the city spaces.

The first order of customised profiles for 600 busses arrived in 1964, and this posed a new type of challenge for the employees at Primo.

It led to eight busy years at Primo, remembers Helge Borg. When the orders from the bus manufacture companies dried up, Primo was scouting for new business industries, one of them was plastic window frames.

Some industries, which we don't have in Denmark – the car industry, for example – are enormous in countries like Germany, and it contributed to creating the French and German plastics industry. Almost everything in a car is made of plastic today. Back in the 1960s, we couldn't muster the kind of volume in Denmark that the German plastic companies produce today. The 600 customised profiles for the Copenhagen city busses that we toiled for years to deliver, a German company would handle in a couple of hours today.

Helge Borg

New products and new markets called for investments in technology.

PRODUCING THE FIRST PLASTIC WINDOW FRAMES IN DENMARK

Chresten Jensen wondered whether it would be possible to convince a sufficient number of customers about the benefits of plastic window frames to create a market for them. To ensure that the plastic window frames would fit the Danish building norms, he allied himself with architects to invent the ideal plastic window frame. In the early 1970s, Chresten Jensen sketched Primo's first window for an animal stable on the back of an envelope.

Luckily for Chresten Jensen, the farmers were in a spending mood after the Danes had voted yes in the referendum about joining the European Community in 1972. In the first year alone, Primo's stable windows accounted for 20 pct. of the entire Danish market for stable windows.

Encouraged by the fortunate beginning, Chresten Jensen wondered whether he could sell plastic window frames to farmhouses. Shortly after Primo was able to present its window, System 1, which was targeted homes and commercial buildings. The next window model went by the name SV III and was produced in cooperation with external window manufacturers. Primo then decided to spin off the production of window profiles into its own company, which went by the name Primo System DK A/S.

By 1977, Primo System was cooperating with nine external window manufacturers to produce Primo System window frames. They were marketed as being maintenance-free and had energy-saving two- or three-layer thermal panes.

The popularity of Primo System's plastic window frames with homeowners and landlords in the cities made window frame production a flagship for Primo and other Scandinavian manufacturers of plastic window frames for a number of years. But the high tide didn't last.

The plastics industry was attacked from multiple fronts, and the increasing oil prices in the wake of the oil crisis in 1973 led to a shortage of raw materials for plastic manufacturing. During the same period, the belief in eternal economic growth through technological advances began to weaken. This scepticism was worsened by a growing international worry about plastic pollution.

Primo Systems survived into the next decade, remaining separate from Primo-Plast until 1988. Helge Borg was appointed as managing director for the merged company, whereas Fleming Grunnet mainly focused on the leadership of the holding company Inter Primo, which was founded in 1987. At that time, Inter Primo consisted of nine manufacturing and sales companies.

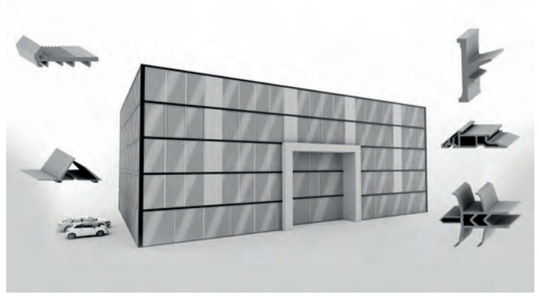
Primo also attempted to establish a production of profiles for windows in the UK, but the project was shut down.

However, Primo turned out to be sufficiently robust to survive both up- and downturns. Its resilience is due to the founder's succession plan. Long before Primo shut down its window production, Chresten Jensen had paved the way for his son to take over the reins of the company and find new business opportunities when others dissipated.

NEXT GENERATION TAKES OVER

In 1973, after about a decade with the dynamic duo, Helge Borg and Fleming Grunnet, steering Primo forwards, Chresten Jensen took another step towards preparing his son to take over the family business. The company shares were split evenly between Chresten Jensen and Fleming Grunnet.

As a partner, Fleming Grunnet's highest priority was to get the finances in order and to settle overdraft facilities and expensive bank loans. Part of that strategy involved reinvesting the company's revenue in the company and liquidating debt. That plan was at odds with Chresten Jensen's tendency to divert the surplus into his private interests – for example, a growing amount of hobby farms with hundreds of cattle, and antiquities.



Plastic is widely used for facade cladding.

EARLY SUCCESSION FROM FATHER TO SON

The disagreements remained unresolved for four years until Chresten Jensen in 1977 suggested his son bought his father's shares of the company. The suggestion was a consequence of a late-night disagreement in Tistrup. Fleming Grunnet wanted to streamline Primo by investing in a forklift. Chresten Jensen, on the other hand, would rather buy a tractor for his farms. The conflict resulted in Chresten Jensen saying:

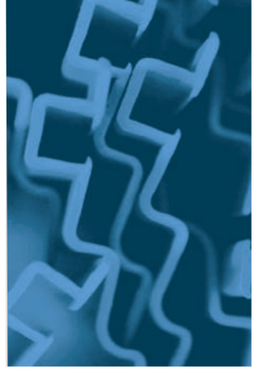
"We can disagree about many things, son, but not about money. You can buy my shares tomorrow."

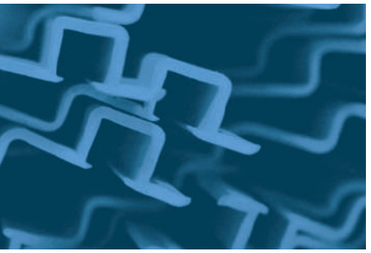
The next morning, Chresten Jensen left his part of the Primo shares to Fleming Grunnet. In 1977, Chresten Jensen was 60 years old. He offered to be available as a consultant, but he had definitively left the reigns to his son. That took many by surprise.

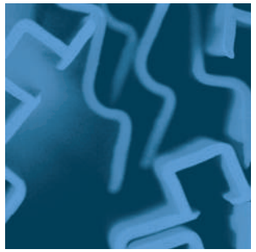
"It was unusual for a founder of a company to quit at such a young age. I respect Chresten Jensen for that.," says Helge Borg, looking back. Fleming Grunnet commended his father for taking the tough decision.

Not until 1986 did Chresten Jensen enter the board of Primo Denmark until he stepped out in 2006. Only two years after his father joined the board, in 1988, Fleming Grunnet decided to merge Primo-Plast and the window production in Primo System into one company with Helge Borg as the Managing Director.

1965
The Swedish company Celloplast patents the plastic bag.







I regard it as being quite a feat and a very mature gesture my father made to give up the company aged only 60: Few people are capable of leaving their life's work while they are still at the top.

Fleming Grunnet in the magazine Plastic Juli/August 1977

VALUES AND LEADERSHIP STYLE

Even though Chresten Jensen and Fleming Grunnet did not always agree on how to spend the revenue, both of them were guided by two shared values: "The will to persevere is a prerequisite for success" and "No amount of skill can compensate for lack of discipline".

These idioms had guided Chresten Jensen's highly developed entrepreneurial gene and his projects. But they also imply that he might have expected his employees to share his enterprise and energy.

"Chresten Jensen has a short fuse. But he was also quick to move on and did not hold a grudge", says Helge Borg. But Chresten Jensen and Fleming Grunnet shared other fundamental values. For example, regarding orderliness.

"Everyone can break an extruder screw by accident. Mistakes are allowed. But if you stub out a cigarette butt on the floor, that will not be accepted. It has always been so clean at Primo that you could sit on the floor and eat," remembers Karsten Jakobsen who has worked at Primo since 1986.

Primo takes pride in retaining its employees.

A PERFECTIONIST WHO SAW OPPORTUNITIES EVERYWHERE

Chresten Jensen's always impeccable appearance also revealed something about his personality.

"He was a perfectionist within what was possible. He hated sloppiness," says Helge Borg. But even if it could sometimes be hard for some employees to always live up to Chresten Jensen's high expectations, the loyalty among the staff was immense.

"You always respected Chresten Jensen. Also, when he went a bit overboard. People might just have thought that some problems appeared bigger in his world than in others'," continues Helge Borg.

On the other hand, Chresten Jensen was always searching for new investment adventures. Sometimes he would lunge himself into a new project without having analysed the profitability beforehand.

FROM AN INTROVERT TO AN EXTROVERT COMPANY

Whereas Chresten Jensen was always on the hunt for new projects, new customers or acquisitions, Fleming Grunnet went a step further in his vision for Primo's development. He saw that the way forward would be to focus on acquisitions abroad rather than only banking on exports.

During the 1980s, Primo became the biggest extrusion company to produce plastic profiles in Denmark. But at that time, it was no longer possible to increase the sales of plastic profiles at the domestic market – the Danish market was simply too small. That is why Fleming Grunnet decided to look abroad. Later on, it did turn out to be an advantage to be able to focus on local customers, both because it simplified communication with the customers and because the goods could reach the customers faster.

A NUMBERS MAN AND A STRONG COMMUNICATOR

Fleming Grunnet can probably thank his business education in Aarhus and his education as a timber merchant in Sønderborg, in Denmark, for his financial skills, which made it easier to chart the direction for Primo. These educations taught him, among other things, to find strengths and weaknesses in a company account. This skill cemented his opinion that it was essential to have financial control and avoid owing money, as far as possible.

"Consolidation before growth" was Fleming Grunnet's motto when he took responsibility for Primo's accounts and decided to weed out expensive bank debt and overdraft facilities.

It was not only the finances that father and son also handled differently. These differences had a positive effect on the company culture and company spirit. Fleming Grunnet, for one, is a strong communicator who seeks input from relevant parties and employees as part of his decision-making process.

"We went from directives to dialogue. Fleming Grunnet's including leadership style was quite modern at the time," remembers Helge Borg.

Fleming Grunnet compares his relationship with the employees to that of a priest and his congregation.

"So, I needed the congregation to follow me. But you also need the right people. Otherwise, you might as well give up," explains Fleming Grunnet about his approach to his staff. He also commends the staff in Tistrup which remained loyal to the leadership, also after Chresten Jensen's departure.

"The people from Western Jutland are dependable. They may not all be physicians, but they are reliable and show up every day." Helge Borg agrees, saying that "Western Jutlanders are very loyal. Even though there were other manufacturing companies nearby, there was no competition over employees".

The fact that Fleming Grunnet asked the relevant internal specialists and skilled workers for advice made the staff more proud to work for the company. "Machinists were asked about machines and so on. Of course, there had to be relevance," underlines Helge Borg who has tremendous respect for Fleming Grunnet both personally and professionally.

Fleming Grunnet's human understanding and sense of numbers have helped him assess whether a company would be a reasonable acquisition for Primo – a skill he thinks he has inherited from his mother's father, Lauge Grunnet. The latter both ran an inn, a farm and a trading company.

Plastic sealing being reeled into big rolls immediately after being extruded.

> **You have to have the right people, otherwise you might as well give up.**
>
> Fleming Grunnet

Norsk Hydro buys the plastic company Vefi AS.
1967

IF IT IS MESSY OUTSIDE, THE BUSINESS IS PROBABLY MESSY, TOO

While neither father nor son were afraid of running a risk, Fleming Grunnet only made calculated risks.

“I don’t mind running a risk. I just need to understand it. I have not run risks of which I had no overview. We could have been much bigger if I had run bigger risks than I have. I’m not making a fuss about it either if we experience losses. After all, that does happen sometimes,” says Fleming Grunnet.

Besides getting the finances in order, Fleming Grunnet had a goal about making Primo known in the Nordic countries within the first decade of his leadership. Primo’s first acquisition was part of that strategy, as was due diligence.

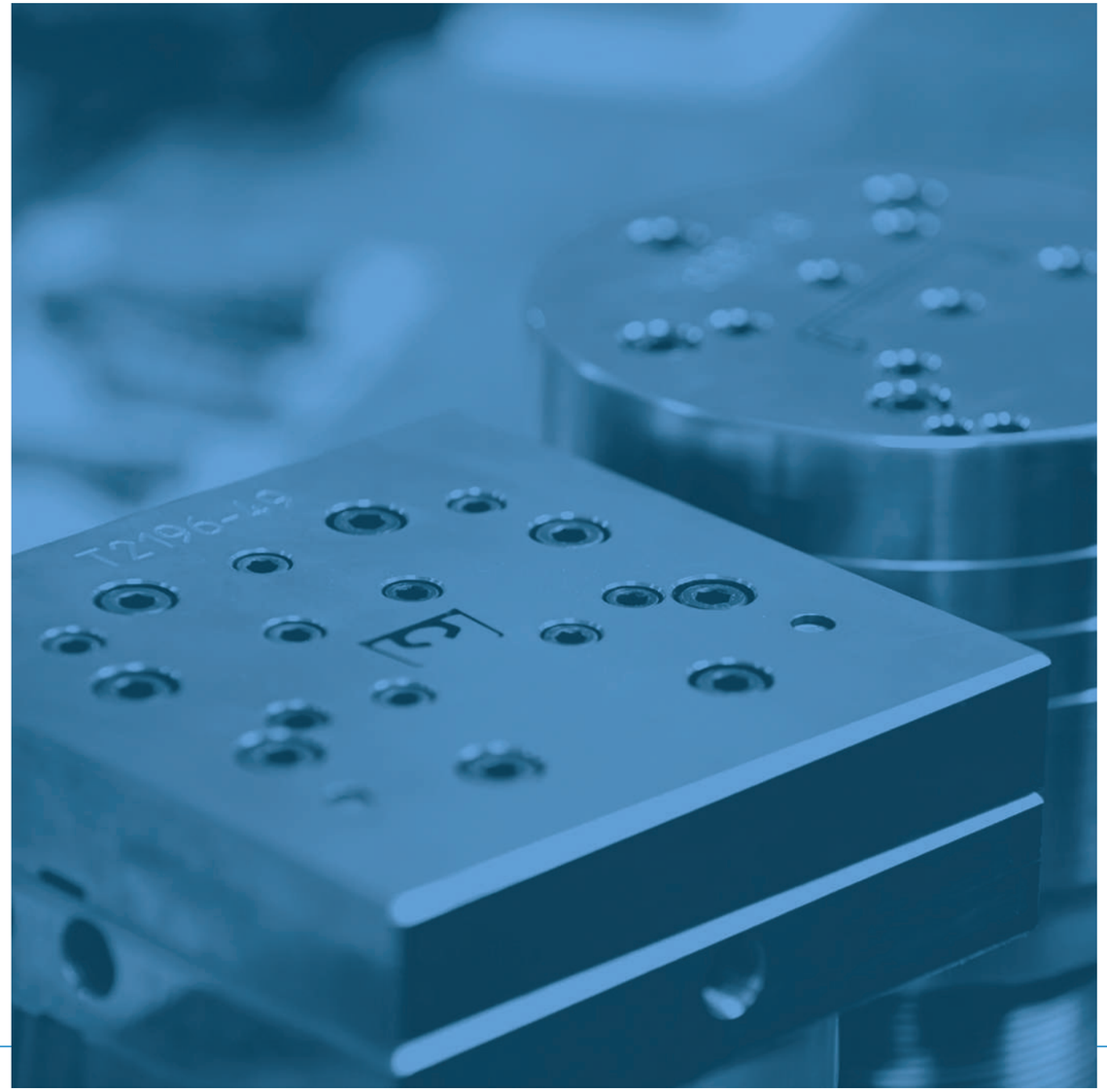
“I inquired within my network. I have always probed just like the Native American scouts orienting themselves about the goings-on. But others have done that, too,” says Fleming Grunnet. But his curiosity also made him investigate business possibilities a bit differently than others might do.

“I have never declined a deal in advance. I want to feel the heat in the kitchen. I might drive by during the weekend the day before we had agreed to meet just to see the place. If it was messy, and rusty bikes were lying around in the back, the business was probably a mess, too,” reasons Fleming Grunnet today.

RIGHT TIME, RIGHT PLACE

Fleming Grunnet has a modest reply when asked why Primo was the one company that managed to become the biggest extrusion company in Northern Europe.

“It’s a matter of being in the right place at the right time. A lot of it is also due to economic trends. I’ve put in my work hours, naturally, but Primo’s success is to a higher degree due to coincidences rather than strategy. And we did buy no less than 28 companies, after all,” says Fleming Grunnet.



RESTRUCTURING, PROFESSIONALISATION AND CONTROL OF THE FINANCES

Even when Chresten Jensen was still the sole patriarch of Primo, and Fleming Grunnet was relatively new in the company, Chresten Jensen would rarely make an appearance at the office. Eventually, he spent most days on his two hobbies, his farms and antiquities trade. This absence meant that Fleming Grunnet was at liberty to leave his mark on the extrusion company. Fleming Grunnet established changes in three critical areas that would have long-lasting, positive impacts on the company, namely streamlining, professionalism and finally the finances.

One of Fleming Grunnet's first steps was to streamline administrative work processes at the office to prepare a future transition into using computers. The first IT systems were introduced in Primo in 1987.

The three flying swans in Primo's logo are designed by Carl G. Neumann.
1968

Innovation and new technology have always characterised Primo.

INVESTMENT IN KNOWLEDGE

During Primo's first years, when hardly anyone in Denmark knew anything about plastics production, not to mention extrusion, Chresten Jensen and his growing group of inventive employees went through a process of trial and error until they succeeded in making a product of the expected quality. But the development within the plastics industry was raging fast from the 1950s onwards. When Fleming Grunnet became a partner of Primo in 1973, he seized the opportunity to hire apprentices who were enrolled in school to become toolmakers. The toolmaker education is targeting extrusion to a higher degree than the machinist training, which was previously the education that offered the most specialised knowledge about extrusion.

The toolmakers were crucial for the success of an extrusion company. They are the ones who can make the perfect tool for each customer. It takes time to adjust them in cooperation with the customer, so each tool is precious.

It is also in this period Primo hires its first machine engineers. This way, Primo's technological know-how reached a higher level, and it became easier to develop new, improved products and machines.

Chresten Jensen and Fleming Grunnet posing in front of the Primo-Plast sign in Tistrup in the late 1970s. Today the plant in Tistrup is managed by Claus Lykke.

> My father could spend two Euros even if he only had one. I would rather have one Euro and save up the other.
>
> Fleming Grunnet

> My motivation was that I did not want to go bankrupt. I didn't want to owe anyone anything. But I'm willing to take a risk and move the pieces around a bit.
>
> Fleming Grunnet

A CHANGE OF COURSE IN THE FINANCIAL STRATEGY

It was not only the culture and the spirit that changed when the son replaced the father. For some years, the two discussed Primo's finances often. Taking advantage of the economic boom, Fleming Grunnet sped up the completion of his mantra "consolidation before growth". With Helge Borg as his Procurement Manager and his right-hand man, Fleming Grunnet continued to make budgets, shave off expensive bank debt, and slowly but surely increase Primo's liquidity. Primo's success had gotten in his blood.

"My father could spend two Euros even if he only had one. I would rather have one Euro and save up the other.

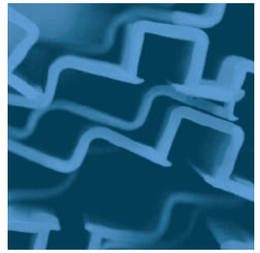
My financial strategy was much more careful than my father's," says Fleming Grunnet. Consequently, he settled the overdraft facilities, paid back debt and managed to save up liquidity, despite sky-high interest rates in the 1970s. "My motivation was that I did not want to go bankrupt. I didn't want to owe anyone anything. But I'm willing to take a risk and move the pieces around a bit."

The numbers man and strong communicator understood the value of investing in the employees, giving them more specific and relevant educations, and the necessity of being able to retain them.

STAFF DEVELOPMENT AND CARE

Primo invested in providing education to employees as well as sending them on learning trips to industrial expositions. Technological Institute, Denmark's biggest knowledge centre within building materials, visited Tistrup to educate the staff about raw materials, measuring technology and other subjects that employees working with production needed to master. Primo was one of the first plastics companies to educate its own plastic technicians. However, Primo wanted more than just give its employees the necessary knowledge. Fleming Grunnet wanted to inspire them and keep them updated on the latest tendencies, so they could return to Primo bringing new ideas. That is why production staff were paid to go on inspiration and networking trips to the large industrial exhibitions in Düsseldorf. These exhibitions are still pivotal for Primo.

Fleming Grunnet becomes a partner of the company.
1973



IMPROVING THE WORK ENVIRONMENT

All in all, Fleming Grunnet took care of his employees. Early on, he bought equipment to minimise heavy lifts. For example, he purchased a lift for the heavy bags containing plastic granulate to spare the staff for repeated heavy lifting when new raw materials arrived. He also hired a mechanical engineer who was responsible for ensuring a safe physical working environment for the production staff, for example, by ensuring sufficient exhaust ventilation by the extruders.

LOYAL EMPLOYEES

Fleming Grunnet's staff approach promotes high staff loyalty at Primo. A surprisingly large part of the staff is second-generation employees and even third-generation employees at Primo. Part of the devotion is ascribed to Primo's involvement in the local community by funding sport and leisure activities.

1973
The oil crisis impedes the Danish plastic producer's access to raw materials.

PROUD EMPLOYEES

Both Chresten Jensen and Fleming Grunnet prioritised treating the staff well, investing in education, safety and job satisfaction. In return, the founder and his son expected that the employees behaved properly both at work and outside of work. Many employees must have found that fair. Most employees have acknowledged the good leadership by showing great loyalty and pride – and by staying at Primo for years once they got a foot inside.

Employees demonstrate their pride in the company in many ways, for example, by increasing their knowledge about materials and products and in their ingenuity when facing a challenge. Fleming Grunnet nourished their pride by often asking relevant staff for advice, or asking to hear their thoughts in a specific matter. By prioritising relevant communication and a clear division of responsibility, Primo is continuously training staff with leadership functions to become better leaders and decision-makers.

Helge Borg was one of those leaders. He was already popular with the other employees when Fleming Grunnet made him Managing Director for the merged Primo System and Primo-Plast entity in 1988. It may then come as little surprise that the employees showed their pride and loyalty towards Primo when the company celebrated its 30th anniversary. When Helge Borg and Fleming Grunnet celebrated their 50th birthdays the following year, the duo's popularity was literally carved in stone. To mark the event, the staff presented Primo a commemorative stone embedded with a copper plate of the company logo. At the inauguration event of the stone, Fleming Grunnet and Helge Borg held a mutual reception for the staff where Fleming Grunnet gave a speech to the staff in the form of a fairy tale about the stone.

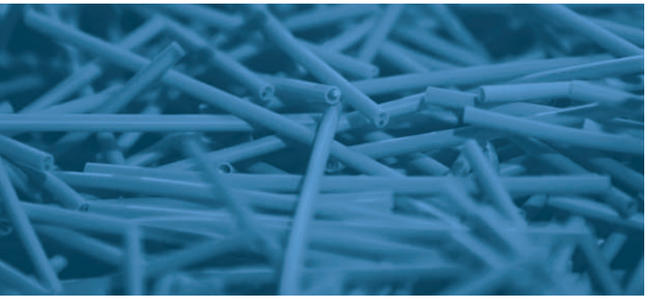
"The customers and the staff are essential. I am not the most important person. It is a matter of creating a leadership culture that attracts and maintains good employees and customers. Nothing works without good employees. But you also have to listen to the customers' wishes and needs," says Fleming Grunnet.

With Fleming Grunnet at the helm and due to the leadership changes he had carried through, Primo was well prepared for acquisitions abroad in the coming decades.

At Primo's 50th anniversary, employees give Fleming Grunnet a memorial stone decorated with Primo's swans.

> **The customers and the staff are essential. Nothing works without good employees. But you also have to listen to the customers' wishes and needs.**
>
> Fleming Grunnet

Chresten Jensen sells his share of the company to Fleming Grunnet.
1977



ACQUISITIONS AND INTERNATIONAL EXPANSION

The 1980s – 2000s

TRADE AND MECHANISATION

Throughout the 1980s and 1990s, plastic became increasingly common as part of electronic goods, which were becoming commonplace. Credit cards made of plastic were introduced, and the handy plastic card was used to pay for items like Walkmen, portable stereos, VCR's, CD players, and personal computers – with frames made of plastic. The plastic-covered electronics expanded into the consumers' kitchens, for example, soda machines, coffee and ice machines, kitchen machines, just to name a few. Even waterbeds, in which the water was contained within a thick PVC bag, were popular in the bedrooms for some time.

In the early 1980s, Primo was riding on a wave of growth based on both customised profiles and plastic window frames. Primo expanded its customer base, bought Danish competitors and later on also foreign companies.

The progress benefitted from the European Community, which, from 1986, made trade between European member countries much more effortless. Even international trade outside the EC increased since GATT, the predecessor for WTO, lowered the custom tariffs and thus encouraged an increase in free trade. Aided by these trade rules, more companies ventured out on the international market and established production abroad. Local production was the spearhead into new markets, which at the same time increased the competitiveness due to access to cheap labour abroad.

Primo takes over the two companies Ureflex and Krone Plast, both located in Denmark.
1980

Furthermore, the opportunities for growth during these years were supported by technological development. Bigger and better machines made it easier for Primo to produce more customised products faster and in larger amounts. Moreover, the updated production technology freed up personnel, and processes which previously required a lot of human resources were fully automated.

The modernisation improved the work environment in the production facilities. The machines increasingly took care of the heavy lifts, just as exhaust ventilation was installed, and initiatives to reduce noise was established. The industry adopted international standards to improve the quality of plastic products, and environmental standards were getting a more prominent place on the industry agenda.

International trade deals not only made it easier to trade with companies abroad. It also promoted acquisitions of companies across borders.

We constantly had to invent new business areas. What are we also good at producing?

Helge Borg

Primo in the Netherlands.

PRIMO BURSTS OUT OF ITS SHELL

During the 1980s and 1990s, Primo continued Fleming Grunnet's growth strategy, which fuelled growth through increased exports as well as targeted acquisitions in Denmark and abroad - first in Sweden, Finland and Germany, but later on also in Norway and Poland.

The growth ambitions were high. In only three years, the holding company's nine branches were to increase their exports from 15 pct. to 25 pct., according to the report "Objectives 1988-1991" ("Målsætning 1988-1991"). The growth was primarily expected to be driven by exports to Scandinavia, Great Britain, the Benelux countries, and West Germany.

The acquisition strategy was so successful that Primo in the 1980s became not only the biggest producer of plastic profiles in Scandinavia but the leading extrusion company in all the Nordic countries. Alongside the acquisitions, Primo continued to produce new customised products for customers from a growing variety of industries.

In this manner, Primo increased its sales both at home and abroad – in the Nordic countries, in the Netherlands, in Great Britain, and former West Germany. During this period, the growth strategy walked on two legs, so to speak: growth through acquisitions and growth through increased exports.

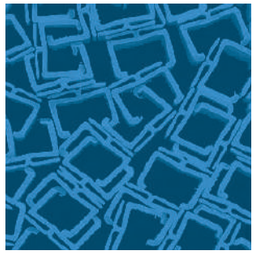
However, the opportunities for growth were not yet exhausted in Denmark during the 1980s. One of the customer segments that grew in this period was the refrigerator manufacturing industry.

1982
An American man is the first person to get an artificial heart made of aluminium and polyurethane plastic.

THE REFRIGERATOR ADVENTURE

The refrigerator manufacturing companies' demand for customised profiles took up an increasing amount of space in Primo's order book into the 1980s. Besides Swedish Electrolux, which had previously bought the Danish refrigerator manufacturer Atlas, the biggest Danish refrigerator manufacturer, Bros. Gram, was among the lists of customers.

The Primo employees' foreheads got a bit sweaty when they learned that Gram was among the group of refrigerator manufacturers that presented them with their most challenging task yet: to produce fully assembled plastic profile frames for soft gaskets and top frames.



High quality, stable deliveries and an unmatched product range have helped create success for Primo.

NEW REFRIGERATOR FACTORY BY THE HEADQUARTERS

The new demands meant that the staff had to learn new production methods. To that end, Primo initiated a programme to spread the knowledge about welding technology to ensure that Primo could develop welding machines for both soft and hard frames.

The challenge was increased by pressure from foreign competition and the customer demands for low prices. Primo, therefore, needed to learn to weld, and that required a few practice rounds before they succeeded in producing a satisfactory product at a competitive price. To make space for the new production, Primo established a new frame factory in Tistrup. The construction was completed in 1982 with the financial support from the Danish Regional Development Directorate that existed at the time.

ACQUISITIONS AND HEADHUNTING ON ZEALAND

But even with the new factory, Primo could not keep up with the demand for customised profiles for refrigerators. To get more space for plastic production, Primo bought a bankrupt factory that had produced cushions for the furniture industry. On the same occasion, Primo bought the small plastics company Krone Plast A/S. Primo had previously acquired DAO Plast and Jacob Holm & Sons.

Refrigerator manufacturing companies from Scandinavia remained a vital customer segment for Primo until the white goods industry left Denmark in the 1990s for the benefit of low wage countries, such as Turkey and Russia.

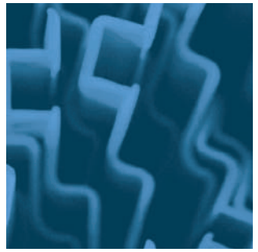
Primo establishes a new factory for the production of frames for refrigerators on Odinsvej in Tistrup.
1982

Primo buys Color System A/S.
1983

THE FIRST ACQUISITION ABROAD

During the 1980s, Primo's success selling profiles in Denmark meant that it had become the largest local manufacturer and de facto had saturated the Danish market. The company's exports had also grown, but the leadership decided that it was time to look into the possibilities of using acquisitions as an engine for increasing international sales.

That decision was aligned with the goal of making Primo known in the Nordic countries within Fleming Grunnet's first ten years at the helm. Naturally, Primo's first acquisition was part of that strategy. Initially, Fleming Grunnet scrutinised the market in Sweden.



PRIMO SWEDEN IS BORN

In 1984, Primo bought its first foreign company, the small Swedish plastic company Kontraplast AB, which produced skirting boards, stairway caps and other plastic profiles. With this acquisition, Primo Sweden AB was born.

Fillers and rods for offshore cables are rolled onto large cable reels that are stored until the customer needs them.

Primo takes over Swedish Kontraplast AB – Primo's first investment abroad – and establishes Primo Sweden AB.
1984

Wiik & Höglund merges with the mink farm Keppo into KWH Group.
1984

PRIMO SWEDEN AND FINLAND

After Primo's successful company acquisitions abroad, Fleming Grunnet wanted to explore the possibilities further in Sweden and Finland. At first, he aimed high and went after heavyweight Swedish and Finnish extrusion companies. Later he focused his attention on smaller companies in the two countries.

HEAVYWEIGHT IN SWEDEN

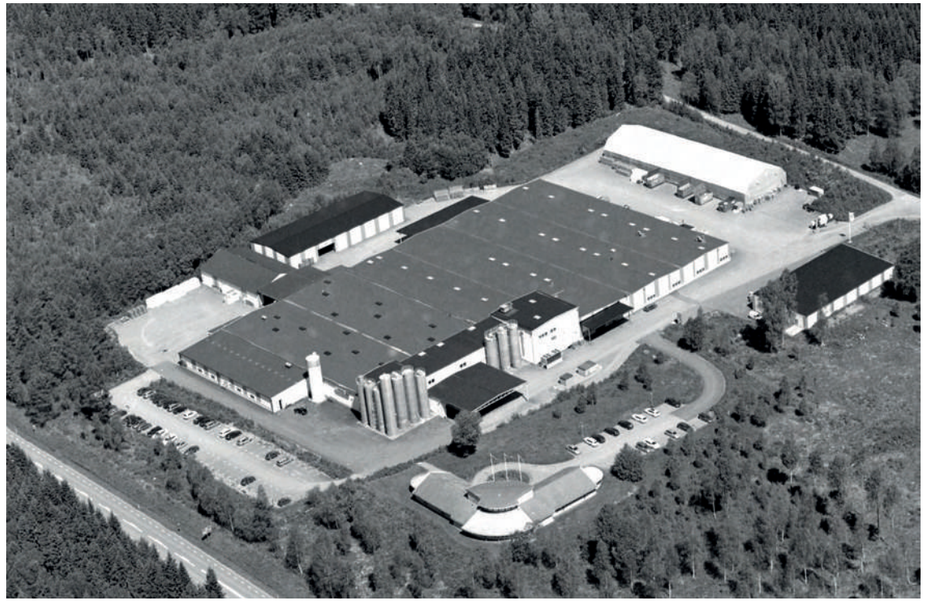
Only one year after Primo's first acquisition abroad, Fleming Grunnet struck again in Sweden. This time, Primo bought the Swedish plastic manufacturing company Sondex, which already had a long history behind it since it started as a rope manufacturing company, Svenska Bindgarnsfabriken, in 1847. It was this exact rope company that invented a method to coat sisal clotheslines with plastic.

"KemaNobel expected plastic window frames to become hugely popular. But in Sweden and Norway people would rather have wooden window frames", explains Knut Anderlund about the reason why KemaNobel sold Sondex to Primo. It was also at KemaNobel Knut Anderlund met Chresten Jensen and Fleming Grunnet for the first time. Knut Anderlund joined Primo Sweden, in which he was a board member until he left Primo at the age of 70 to establish his own extruding company.

Svenska Bindgarnsfabriken.

> KemaNobel expected plastic window frames to become hugely popular. But in Sweden and Norway people would rather have wooden window frames.
>
> Knut Anderlund

Primo's factory in Limmared, Sweden.



PRIMO SWEDEN DOMINATED IN SWEDEN

Acquiring Sondex made Primo owner of one of Sweden's biggest manufacturer of plastic profiles. Sondex produced profiles for the Swedish car manufacturing companies Volvo and Saab, milk tubes for Alfa Laval and plastic profiles for the construction industry. Both Sondex and Primo considered the acquisition to be a success. Having struggled with deficits a few years prior, Sondex mustered solid surpluses as a part of Primo and under the competent leadership of Swede Leif Wiman.

Leif Wiman once worked for KemaNobel, which had acquired Sondex, among others. When KemaNobel was looking for a buyer for Sondex, Leif Wiman recommended Primo. Leif Wiman knew Fleming Grunnet beforehand because the two had met previously on business occasions. As part of the deal, Leif Wiman remained at the helm of Sondex after the acquisition, at first for a transition period of six months. But Fleming Grunnet offered him to keep his position, which Leif Wiman accepted.

Primo Sweden continued its acquisitions in Sweden into the 1990s. In 1991, Limek Plast AB became part of Primo, and the flowing year Johnssons Söner AB followed suit. Besides making profiles, Johnssons Söner AB was also a leading manufacturer of PVC horse jumps.

Primo buys the large Swedish plastic manufacturer Sondex.
1985

Vefi AS is acquired by the large Norwegian car dealership chain the Møller-Gruppen.
1985

THE FIRST ACQUISITION IN FINLAND

Despite the many acquisitions in Sweden throughout the 1980s, Primo was ready to look for possible purchases in Finland during the same period. Fleming Grunnet had his mind fixed on one particular Finnish manufacturer of plastic profiles, WH Profil. This extrusion company had been split off from the parent company, Finnish KWH Group, and turned into an independent company. The parent company was a fairly new entity, being the result of a merger between the pipe manufacturer Wiik & Höglund and the mink farm Keppo in 1984.

After thorough deliberation, Fleming Grunnet decided to transfer the existing Director of profile manufacturing in WH Profil, into what became OY Primo Finland AB, and make him Managing Director of the company. Roger Häggblom's values corresponded with Fleming Grunnet's. Moreover, the Finn's education as an accountant, his language skills and experience from a former job as Chief Financial Officer, were qualities Primo valued to such a degree that he quickly became part of Primo's inner circle. When Roger Häggblom retired in 1998, Jari Lehtimäki took over as Managing Director of Primo Finland.

The decision to buy companies in the Nordic countries turned out to be an advantage for Primo. In 1988, Primo had become the biggest manufacturer of extruded profiles in the Nordic countries with 300 employees in Denmark, Sweden and Finland and roughly 300 million DKK (40 million Euro) revenue.

The technical level of Primo Finland surpassed the Danish in some areas. For that reason, the Finnish branch targeted its production towards industries that needed large batches, for example, for electricity, electronics, window frames, flooring and furniture.

A WAVE OF ACQUISITIONS IN FINLAND

The acquisition strategy showed its value over the following years as Primo Finland cemented its market position. In 1995, Primo Finland managed to buy its biggest local competitor Uponor. This purchase marked the kick-off for several acquisitions of smaller extrusion companies in Finland before Primo Finland became the biggest producer of plastic profiles in the country.

By the end of 2011, Primo Finland had 82 employees. In just one year, the revenue of roughly 15 million Euros had grown by 17 pct., compared to the prior year.

At the time, Primo Finland mostly produced standard profiles for the construction and electric industry in Finland, Estonia and Russia. Still, the factory also made customised profiles, used for explosives in the mining industry. Other examples of niche products from Finland are profiles for Russian ice hockey rinks.

In Finland, they made advanced profiles for the lighting industry.

Primo acquires the Finnish OY WH Profil AB – a subsidiary to KWH Group – and thus establishes OY Primo Finland AB with Roger Häggblom as Managing Director.
1985

The holding company Inter Primo A/S is established.
1987

1988
The well-known triangle symbol for plastic recycling is introduced.

The world should regard us as a modern and dynamically run company, which is open and environmentally conscious, high-tech, with an attractive and well-groomed workplace.

Fleming Grunnet

1988
The first banknote made of polymer is issued in Australia.

Primo-Plast and Primo System are merged into one company with Helge Borg as Managing Director.
1988

ANCHORED BY A COMMON SET OF VALUES

Even though the new, Nordic branches of Primo were relatively autonomous, part of the Nordic company structure meant that they were to follow a few instructions from the headquarters in Denmark. The instructions were the result of a number of goals, which Fleming Grunnet had put on paper in 1988 and which reflected the values of the company. Among other things, Fleming Grunnet wrote that "The world should regard us as a modern and dynamically run company, which is open and environmentally conscious, high-tech, with an attractive and well-groomed workplace".

Each company was required to have a set of house rules, which, in accordance with the spirit of the founder, expected employees to keep their workplace tidy and to work for a good, active local community through sponsorships and other means. Furthermore, the leadership in each branch was to exercise visible management with a high level of information and promote a culture of autonomy and responsibility among management and staff.

The acquisitions in Finland and Sweden were only the beginning of Primo's acquisition adventures abroad. While Fleming Grunnet was probing the neighbouring countries for possible purchases, he asked the management of the local branches to keep an eye on new potential members of the Primo family.

Primo UK is established in Manchester, England.
1989

THE FIRST ACQUISITION OUTSIDE THE NORDIC COUNTRIES: GERMANY

After the fall of the Berlin Wall in November 1989, Germany's 80 million inhabitants became the biggest market in Europe for all industries, including the plastics industry. Germany had already been Europe's biggest supplier of plastics for decades, with a mature production base for plastic products. But for Primo, the most enticing thing about the German market was the German tradition for producing and using plastic window frames.

At first, Primo dipped its toes into the German market by acquiring Hanseatische Präzisions Profile (HPP) near Hamburg in 1990. The 70 employees at HHP used worn-down machines to produce an array of gaskets, including soft gaskets, even at a much higher speed than Primo in Denmark.

At the same time, Primo bought a small German manufacturer of profiles for wooden window frames in Papenburg. The town was the home of many plastic dynasties which were in fierce competition with each other. This did not intimidate Primo, which invested in new machines and merged the two companies by the name Primo Profile.

"I was down there at least once a week during those years. I had a Danish engineer who was Plastic Manager to hold the reins for me in my absence. It worked well. The Germans are very proper," remembers Helge Borg, who was a satellite Manager of Primo Profile for years.

Despite the fierce competition in the German plastics industry, Primo managed to keep its footing in Germany, and in 2004 Primo bought yet another German extrusion company, this time Profilex GmbH in Berlin.

Thirteen years later, Joachim Dausch, Managing Director of Primo Germany, was in charge of consolidating the company after the takeover of Profilex GmbH's distribution in Germany and its factory in China.

Primo's international acquisitions take off during the 1990s.

Primo buys two German profile manufacturers and establishes Primo Profile GmbH in Germany.
1990

1990
Biopol enters the market as the first type of biodegradable plastic.

Sondex buys Limek AB and the insolvent estate of Helex AB.
1991

Offshore production is controlled from the office in Norway and the factory in Dalstorp, Sweden.

THE FIRST ACQUISITION IN NORWAY

While Primo's subsidiaries grew in Denmark, Sweden and Finland throughout the 1980s, Primo did not venture into the Norwegian market to look for companies ripe for acquisition until 1997. Fleming Grunnet had his mind set on the extrusion company Vefi Profiler A/S. Stein Trygsland, the company's controller, had been appointed Managing Director the previous year. As in the big acquisitions in Sweden and Finland, the Stein Trygsland acquisition transferred into what became Primo Norway after the acquisition.

In the following decade, Primo Norway became one of the subsidiaries with the highest revenue under Stein Trygsland's management, and that did not go unnoticed. At the beginning of the new millennium, Stein Trygsland was promoted to Managing Director of both Primo Norway and Primo Sweden.

In the following years, he orchestrated a major restructuring and streamlining. That resulted in the closure of the Norwegian production branch and the factory in Malmö. Moreover, the number of employees was reduced to two thirds. However, Primo kept an offshore sales department in Norway, consisting of a handful of employees.

The Norwegian production venture ended in Primo's purchase of Norsk Extruding in 2008 when the production was moved to Primo's factories in Sweden and Poland. Stein Trygsland remained the Managing Director of Primo Sweden until 2012. As of 2020, Jim Nilsson is Managing Director of Primo Sweden, whereas Björn Hågan is Managing Director of the offshore sales department in Primo Norway.

The acquisitions at home and abroad during the 1980s and 1990s were spearheaded by the strong duo, which Fleming Grunnet and Helge Borg continued to form throughout these decades.

Sondex buys Josef Lindbom AB, a tube manufacturer, and merges Limek with the company Johnssons Söner as a subsidiary.
1992

Primo enters in a joint venture with the Polish company Czeslaw Spyra.
1993

OY Primo Finland acquires a competing company and becomes Finland's dominating profile manufacturers in the coming years.
1995

Helge Borg leaves Primo's board, while Jan Magnussen and Remy Cramer join the board.
1995

LONG-ESTABLISHED WORK IN TANDEM BETWEEN HELGE BORG AND FLEMING GRUNNET

Ever since Fleming Grunnet and Helge Borg established their decade-long work in tandem, their collaboration has been exemplary with a clear allocation of responsibilities between them. In the early years, Helge Borg was responsible for the internal and external communications, whereas Fleming Grunnet held the financial reins. Just as Chresten Jensen would bring Helge Borg along on his business trips – especially if the meetings were going to be held in English - so did Fleming Grunnet when he became the sole owner of the company.

Helge Borg's responsibility grew in step with the company. When Primo grew branches in the Nordic countries, Fleming Grunnet gathered the companies under the umbrella of the holding company Inter Primo in 1987. At that time, Inter Primo consisted of nine manufacturing and sales companies. Only one year later, Fleming Grunnet merged the two Danish branches, Primo-Plast and the window production in Primo System, into one company and appointed Helge Borg as General Manager of the merged entity.

During the 1980s and 1990s, however, Fleming Grunnet also took on other responsibilities unrelated to Primo. Back in 1977, Fleming Grunnet established the company Genua, an investment trust which today owns a number of companies. Today, Fleming Grunnet's daughter, Mette Grunnet, is the owner of Genua. From 1986 and ten years onwards, Fleming Grunnet was a board member of the Danish wind turbine manufacturer Vestas. This involvement made it necessary for Fleming Grunnet to find someone to help him run Primo in his absence.

In the early 1990s, Fleming Grunnet was approached to assist Varde Bank, a regional bank which was in dire financial trouble. Fleming Grunnet wanted to help the bank, which Primo had a history with ever since Chresten Jensen arrived in Tistrup almost half a century before. Therefore he accepted the role of head of the board of Varde Bank.

Helge Borg stepped in as Fleming Grunnet's right-hand man at Primo, and their close cooperation continued until Helge Borg's retirement in 2000.

But unlike Primo, which through the years survived financial crises, fierce competition and changing markets, Varde Bank was beyond saving. Nevertheless, Fleming Grunnet made an immense effort to save as much as possible, and his efforts were lauded with standing ovations by stock owners and employees at the bank's last general meeting.

Towards the end of the 1990s, it became clear that it was time for a change in Primo's top management. The decades of close cooperation between Fleming Grunnet and Helge Borg at the helm of Primo were nearing their end. Helge Borg was approaching retirement age, and Fleming Grunnet searched for external candidates to lead Primo into the new millennium.

> Helge Borg was a trustworthy power broker. I had to ask him two or three times to run the business for me in my absence before he accepted.
>
> Fleming Grunnet

Primo UK shuts down all activities due to a lack of success on the British market.
1995

Primo Sweden buys Smålandslisten AB, which produces silicone mouldings.
1996

Vefi AS establishes an independent extrusion division, Vefi Profiler, with Stein Trygsland as Managing Director.
1996

Primo builds a new factory in Zory, Poland – Primo's first factory built from scratch. The Polish subsidiary Primo Profile Sp. Z o.o. is established and takes over the profile production from Spyra-Primo.
1996

FLEMING GRUNNET BECOMES MANAGING DIRECTOR OF VESTAS

Today, Vestas is known as one of the biggest and most successful companies in Denmark. But in 1986, there was little wind to drive the turbines in the company located in the same region of Denmark as Primo. Due to a 52 million DKK (7 million Euro) debt, Vestas had to declare technical insolvency despite having large receivables abroad. As a consequence, Vestas became Vestas Wind Systems in early 1987 with financial support from FIH, the Financing Institute for Industry and Craftsmanship, as well as from the local investors, Peter Bennedsen, Hans Kolby Hansen and Fleming Grunnet. The transformation was the initiative of Chartered Accountant Jens Hvid and was led by business lawyer Ejvind Sandal.

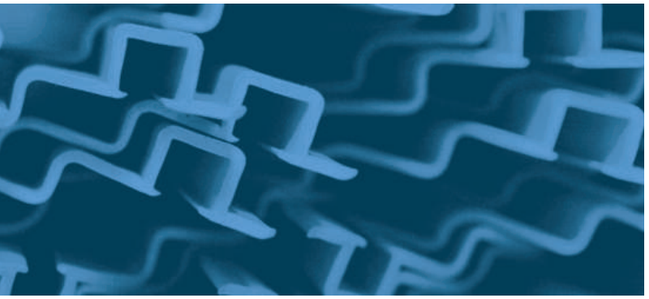
Vestas Wind Systems turned to Fleming Grunnet as their new Managing director. He held the position for a few months, before turning the helm over to Johannes Poulsen. In the following years, Johannes Poulsen was the architect behind the progress that made Vestas the largest wind turbine manufacturing company in the world.

1997
A sailor finds the so-called Great Pacific Garbage Patch – a wide whirlpool, which has amassed an enormous amount of waste consisting of 94 pct. plastic.

Primo takes over Vefi Profiler AS in Norway.
1997

Gert Kristiansen becomes a member of the board.
1998

Fleming Grunnet transfers 75 pct. of the Inter Primo stocks to his daughters, Dorthe and Mette.
1999



THE NORDIC PLASTIC GIANT BECOMES AN INTERNATIONAL PLAYER

The 2000s

THE ESTABLISHMENT OF INTER PRIMO GROUP

In 1999, Inter Primo Group was established at a management seminar in Cannes, France. The following year the management agreed to establish the headquarters for the organisation in Copenhagen. The purpose of the new address was to signal that the factory in Tistrup was not the centre of the company, but a factory on equal terms with the many other factories that have since been acquired in Denmark and abroad.

An international organisation was born – though initially only on paper. There still was no headquarters and no staff in the newly established parent company.

In the previous years, Primo had set up a professional board consisting of Chresten Jensen, Jan Magnussen, Gert Kristiansen and Remy Cramer, the latter as an observer. In 2000, Leif Wiman was appointed Managing Director, replacing Fleming Grunnet. The same year, the headquarters of the company group was established in a rented office space in Copenhagen. Leif Wiman retired in 2003.

Consequently, Primo was on the look-out for a new Managing Director, and it didn't take long before Remy Cramer accepted the job. His background with Maersk Medical and Pharma Plast, combined with his experience as a board member of Primo made him an obvious choice. Remy Cramer already had a long and successful career in the plastics industry, among others as head of the board of the plastics industry trade association, Plastindustrien. Fleming Grunnet was a member of the same board, and it is through meetings in the trade association that Fleming Grunnet and Remy Cramer came to know each other. They agreed that Remy Cramer would become CEO of Primo for three years, after which he would retire.

However, that was not what happened.

Leif Wiman becomes Managing Director of Inter Primo.
2000

Inter Primo establishes its headquarters in Vestergade in Copenhagen, Denmark.
2000

Primo Danmark acquires the plastic division for windows from Rationel Vinduer A/S.
2000

Inter Primo acquires the stocks in the Danish companies Avanti Plast A/S in Billund (window production) and Replast A/S in Skrydstrup as well as Vestfos Plast A/S in Tistrup. The same year, the three window companies are merged into Primo Vinduer A/S.
2001

GROWTH AND DEDICATION TO SPECIALISED INDUSTRIES

As CEO of Pharma Plast, Remy Cramer had been the spearhead of the third-largest plastic company in Denmark, followed by LEGO and Coloplast. Pharma Plast was owned by A.P. Møller and was thus part of a well-structured and consolidated organisation, similar to what Primo was evolving into. Remy Cramer knew how to get there, and he had the necessary experience to carry out the ambitions.

"I liked Primo and the potential for participating in transforming a family-owned and entrepreneur-driven company to a modern group. It was very motivating. I had known Fleming for several years. We are different, but we have always had strong, mutual sympathy towards each other. Looking back, Fleming and I have complemented each other well," says Remy Cramer.

Initially, Remy Cramer had been planning on retiring when Fleming Grunnet suggested he became CEO of Primo. But the challenges were so enticing that he chose to postpone his retirement for three years, for the time being.

The former CEO Remy Cramer.

SIMPLIFYING THE ORGANISATION

Remy Cramer was 59 years old when he accepted the task of simplifying and streamlining Primo's new organisation. One of the ways to do that was to step up digitalisation by implementing a new IT business management system across factories and countries. He also spearheaded the first mergers of similar products across countries.

While Remy Cramer was restructuring the production and organisation, Fleming Grunnet bought new companies to the portfolio. The two did not always agree on the balance between acquisitions and growth on one side and the need for consolidation and stability on the other. But the positive results were clear. During the decade from the turn of the millennium and onwards, revenue almost doubled while a number of new companies were added to Inter Primo.

> **We are different, but we have always had strong, mutual sympathy towards each other. Looking back, Fleming and I have complemented each other well.**
>
> Remy Cramer on the cooperation with Fleming Grunnet

2002
Bangladesh is the first country in the world to prohibit thin plastic bags.

Primo buys BP Maskinværksted (machine shop).
2002

Replast's production in Vojens closes down.
2003

Remy Cramer becomes CEO of Inter Primo, and Primo buys Teknoplast A/S and OTV Plast A/S.
2003

> **The strategy was well received by the board. But, as it turned out, I was ahead of my time.**
>
> Remy Cramer

GROWTH DAMPENED THE ORGANISATIONAL DEVELOPMENT

"I was used to an organisation where everything had to be reported. At Maersk, we had strategies for everything, and everything was by the book. But when I joined Primo, there was not much strategy, and all decisions were based on the business acumen of the CEO. Shortly after I was hired, I, therefore, presented a suggestion for a group headquarters with a production manager, a procurement manager, a group HR department and so on. My approach was to optimise and promote cross-country synergies. The strategy was well received by the board. But, as it turned out, I was ahead of my time," remembers Remy Cramer.

Primo was developing fast at that time. New companies were added almost every year, and Primo's owners and board were focused on growth rather than on developing the framework of the organisation.

THE ENTREPRENEUR AND THE ACCOUNTANT

In 2004, Primo bought a manufacturing company in Berlin. Shortly after, a joint venture was established in China, and a factory was constructed from scratch in Russia. The factory Profilteknik AB in Dalstorp, Sweden, which specialised in products for the offshore industry, was acquired in 2006, and in 2008, Norsk Extruding AS joined the group.

"It was a hectic time. I remember my scepticism when Fleming wanted to buy the factory in Berlin. I was hesitant when he asked us to come down to visit the factory. Then he said: "Then I'll go alone!" But I came along, naturally, and tried my best to estimate risks, advantages and disadvantages. For example, there were some unknown issues about the ownership of the site on which the factory was located. We did not fully agree to which degree that issue should be clarified. I wanted to examine it thoroughly and hired lawyers to help out. When the deal was completed, and all unclear details had been resolved, Fleming said to me: "See? There were no problems at all!", referring to my thoroughness. I said: "Yes, and we know that now because we investigated it". This example illustrates how different we are," says Remy Cramer.

THE NUMBER OF FACTORIES PEAKS

The company flourished. While the owner was on a shopping spree, Remy Cramer worked to control the internal affairs with the slogan "One Company." He succeeded along the way, and during the 2000s, the number of factories in Denmark was reduced.

The acquired factories in Norway and Sweden were specialising in water treatment and offshore, respectively. Both sections flourished and proved that it was worthwhile investing time, production equipment and human resources targeting specific industries. This was the beginning of the strategy of focusing on dedicated Business Areas for individual industries.

Primo Vinduer buys the two Danish window manufacturers, Merkur Vinduer A/S in Ikast and Primo System Vinduer A/S in Esbjerg.
2003

Primo Profile GmbH opens a factory near Berlin.
2004

2004
The first window frame made of 100 pct. recycled plastic is produced.

66 YEARS OF PLASTIC PRODUCTION IN FINLAND

When the two Finnish entrepreneurs Emil Höglund and Edvin Wiik established the company Wiik & Höglund in the town Maksamaa north of Vaasa in 1929, they were not planning on getting into plastics manufacturing. They both had a past in the timber business, and their new company was also timber-related. I 1937 Emil Höglund expanded into the fur industry with the company Keppo, which continued to grow in the following decades.

In 1953, Wiik & Höglund began producing plastic floor tiles, and soon after the company introduced film and pipes made of polyethylene to their product portfolio. By the 1960s, Wiik & Höglund cemented their position in the industry as it became the first company in the world to produce large plastic pipes for the industrial sector. At the same time, Keppo owned the biggest mink farm in the world.

In 1984, Wiik & Höglund merged with Keppo and formed the company KWH Group, with Keppo as the biggest shareholder. The following year, KWH Group' s production of plastic profiles was spun off and became Oy WH Profil Ab in a joint venture with Primo. This was the beginning of Primo Finland headed by Roger Häggblom, who himself had previously worked at Wiik & Höglund. In a few years, the company grew from 37 to 100 employees, and the economy flourished under the leadership of Häggblom.

"When Primo took over, we increased our focus, and we were focusing hard on creating value," remembers Roger Häggblom, looking back, on the occasion of Primo's 60th anniversary in 2019.

Today, Primo Finland is an integrated part of the local community surrounding the factory in Vaasa. The company continues to focus on green and sustainable solutions and the continuous education of its staff. Moreover, the Finnish branch is a technological leader in plastic solutions for the lighting sector.

Primo establishes a joint venture with German Profilex and buys a 25 pct. share of Profilex China in Zhuhai, Kina.
2004

Jan Johan Kühl and Kenny Jensby become board members.
2005

Primo factory in Vaasa, Finland.

PRIMO'S CHINESE FAIRY TALE

Primo's presence in China is the result of Primo's joint venture with German Profilex GmbH. The seller, Klaus Porath, also had a factory in China, which Primo took over in 2017. Klaus Porath had primarily chosen to start up in China to produce cheaper profiles for his existing German customers. Still, for Primo, the factory in Zhuhai called Profilex China was also interesting for other reasons.

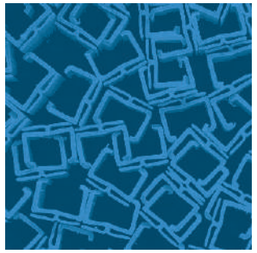
The acquisition of Profilex China was perfectly in line with Primo's strategy to follow the customers, wherever they are. Throughout the last couple of decades, many of Primo's customers had shifted their focus towards the Chinese market and were thus opening manufacturing facilities in the vast country. These customers would either have to import profiles from Europe themselves or buy locally produced profiles. The first option is expensive because of freight costs, but buying locally produced profiles may involve having to compromise on the quality.

"For us, China isn't about taking advantage of cheap labour in the East. It's about following our customers while seeking new markets. Today, we have more customers who we serve locally from our factories to their locations in the Nordic countries, in Eastern Europe and China. That is possible because our customers trust us and the quality of our products. To follow the customers abroad is also a strategy that creates revenue on the home markets because it ties us more closely to our customers," says Primo's CEO Claus Tønnesen.

Primo's factory in China.

He points out that the potential by being present in China is tremendous if you pick the right strategy. There are many extrusion companies in China, and it is hard to compete with their prices. For that reason, Primo's strategy is to focus on expatriates and quality.

To underpin that plan, since 2017, there has been a lively exchange of knowledge between Primo's European business areas and the company in China. A local sales department has been established, and key employees from the Chinese branch are regularly invited on trips to Europe to get the European way of thinking and methodology under their skin. These trips also strengthen the internal network between the Chinese and European staff in the organisation, and this enables them to act more independently. Today, Primo China is run by Vice General Manager Kathy Li.



Primo Finland initiates production in St. Petersburg, Russia.
2005

Swedish production is gathered in a new factory in Limmared in Västra Götaland.
2005

Primo Norway's production shuts down, and the production is moved to Sweden, Poland, and Finland.
2005

2005
Airbus 380, made of 22 pct. carbon-reinforced plastic takes its inaugural flight.

Primos founder Chresten Jensen dies, 89 years old.
2006

In 1993, Primo and Czeslaw Spyra established the joint venture company Spyra Primo Poland.

POLAND: THAW IN EUROPE AND MANY NEW POSSIBILITIES

Primo celebrated its 30th anniversary in 1989, a time when tremendous changes rolled over Europe after the fall of the Berlin Wall. It gave access to new markets for the ambitious company in Tistrup.

Mikolow is a small town in Southern Poland, an area characterised by industrial manufacturing and mining. Here, since the early 1980s, the young, entrepreneurial mining engineer Czeslaw Spyra had operated a factory in which he extruded PVC pipes for the telecommunication industry, using machines he had developed himself.

During the early 1990s, he visited Primo in Tistrup and met Fleming Grunnet, and shortly after, in 1993, Primo and Czeslaw Spyra formed the joint venture company Spyra Primo Poland. Soon after that, Spyra Primo initiated the manufacturing of plastic pipes on a 1000 square meter factory in Mikolow.

The factory in Zory a little outside Mikolow - the first Primo factory built from scratch.

However, the new, Polish market was ripe for further expansion, so in 1996, a factory twice as large was inaugurated in Zory just outside Mikolow. The factory in Zory was the first Primo factory that was built entirely from the ground. The factory in Zory became pivotal for the industrial production of plastic profiles in Poland in the newly established Primo Profile. At the same time, Spyra Primo continued its production of pipes for sectors such as the mining industry, telecommunications and energy. The only 23-year-old Krzysztof Debski was nominated Managing Director of Primo Profile, and under his leadership, the business grew in the years to come. In fact, it grew to such an extent that they had to establish another factory covering as much as 10,000 square meters to meet demands from the new markets in the East.

In later years, Primo Profile has specialised in medical products, and the affiliated medical competencies centre in Poland has become key in the efforts to create growth within this specialised field. Today, Managing Director Bartlomiej Baudler of Primo Poland is heading that strategy.

Primo Sweden buys Swedish Profilteknik in Dalstorp AB.
2006

Primo establishes a new, bigger factory in Poland.
2007

Primo Vinduer buys estate and production equipment in Loburg, Germany.
2007

Ureflex and Color System A/S are sold off.
2007

A PROMISING RUSSIAN INITIATIVE WITH BUMPS ON THE ROAD

In 2005, Primo inaugurated its first Russian factory. It had been located close to Saint Petersburg after years of increasing exports to Russia, at a time when circumstances and rising demand necessitated that Primo developed its own production facilities in the country. During the first two years, Primo Russia's revenue in Russia doubled under the skilled leadership of Managing Director of Primo Finland, Jari Lehtimäki.

A new and bigger factory in Saint Petersburg was being planned when luck ran out. Firstly, a fire in a neighbouring factory caused severe damages to Primo's property. Secondly, the global financial crisis hit hard. In 2008, Inter Primo ran its first deficit in 50 years and consequently had to dismiss several employees. Primo's plan to establish a factory in Russia had to be postponed indefinitely.

The aftermath of the financial crisis was felt in Inter Primo until around 2011, but by 2012 it was finally possible to start production in new, better facilities in Saint Petersburg. Today, Primo Russia has eleven product lines, 43 employees and produces profiles for a range of industries, primarily for the vast Russian market.

"Primo Russia is a good example of Inter Primo's International strategy in which we aim at placing production facilities and sales departments close to where our customers are. And we know that our customers appreciate the local presence," says Managing Director of Primo Russia, Vladimir Varavkin.

Primo's factory in Saint Petersburg, Russia.

Primo Vinduer closes its production in Hobro and Billund, Denmark, and moves it to Loburg.
2008

Fleming Grunnet's daughter, Mette Grunnet, replaces Jan Magnussen on the board.
2008

THE NETHERLANDS: PRIMO BUYS ITS BIGGEST COMPETITOR

In the summer of 2019, Primo bought its biggest competitor, the British-owned profile company Essentra Extrusion based in Buitenpost, the Netherlands. So far, it was Primo's biggest acquisition since its founding, at every scale. With this acquisition, the Group consolidated its position as one of the largest companies in Northern Europe to extrude plastic profiles.

The new name of the Dutch company was Enitor Primo. This name refers to the history of the company, which goes even further back than that of Primo. The Plastic company Enitor was founded in The Netherlands in 1938, and for many years, it produced plastic parts for bicycles. In 1956, Enitor became one of the first companies in the Netherlands to produce plastic profiles. British Essentra Group owned Enitor until its acquisition.

The history of the company is similar to that of Primo's in many ways, and the two companies have competed for the same customers for many years. Despite the competition, the management teams of Primo and Essentra Extrusion have stayed in contact throughout the years. In 2019, that contact evolved into negotiations. Having consulted with the board, Fleming Grunnet and Claus Tønnesen went to London, and after a two-hour-long meeting, the price and the overall plans for the take-over were settled. In June 2019, Primo issued a press release about the merger.

> "We must learn from each other and evolve together.
>
> Claus Tønnesen

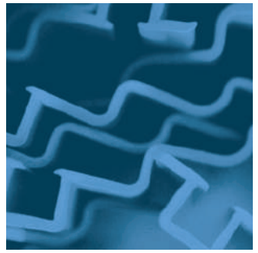
UNIQUE TECHNICAL COMPETENCIES

"It is relatively easy for us to familiarise ourselves with this company. We have the same machines, the same raw materials and the same customer segment. That's why we could make the final decision relatively quickly," remembers Claus Tønnesen.

He points out that Enitor Primo's strengths, besides the size, is a well-run organisation with deep technical insights into extrusion and a range of successful niche products.

"All parts of Primo can learn a lot from Enitor Primo, which, for example, has a unique knowledge about extruding polycarbonate, which is otherwise hard to master. But it also quickly became clear to us that the company has the lowest earnings in the entire Primo Group. Our challenge now is to bring our best practices into the new organisation and make it work," says Claus Tønnesen.

He finds the staff in the Netherlands led by Managing Director Han Schootstra to be very motivated. Han Schootstra sees the acquisition as an opportunity to develop the business and make up for the investment backlog, which has been the result of having a for-sale sign around its neck for years.



Claus Tønnesen's strategy is to go after the low-hanging fruit in the beginning. The methodology, which has been developed in cooperation between the Primo factories over the last few decades, must be implemented in the Netherlands. Similarly, the Dutch's unique sales competencies and knowledge about specific production processes must be incorporated into the rest of the organisation.

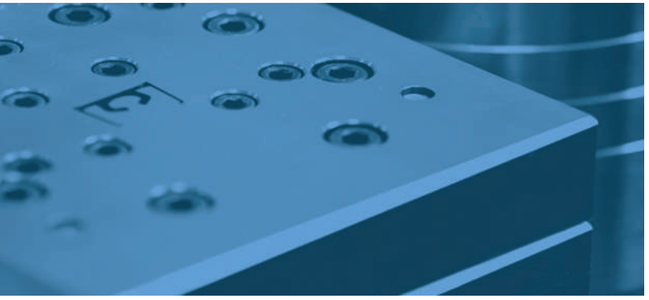
"We won't come along and replace the staff and force a new strategy upon them. We must learn from each other and develop together. Then we will consider whether we can merge any production lines and do more to integrate," says Claus Tønnesen.

The merger also puts an increased pressure on Primo to continue the already launched initiatives, which have been put into action throughout the organisation to strengthen cooperation. The new initiatives include a new ERP system, productivity programmes, cross-sectional sales organisations and business areas.

Primo takes over Norsk Extruding AS in Norway.
2008

2009
Boeing 787 Dreamliner – the first passenger aeroplane primarily made of composite plastic – takes its inaugural flight.

Primo marks its 50th anniversary in the shadows of the financial crisis, which resulted in layoffs of 300 employees.
2009



AN INTERNATIONAL ORGANISATION IS BORN

The 2010s

After the first wave of acquisitions, Primo had a group of independent plastic companies under its belt, each with its own production, own sales apparatus, and own specialised knowledge about a wide range of different types of plastic production. Furthermore, each factory had its own management and by and large functioned as independent companies.

They were also part of something bigger. Because Fleming Grunnet preferred to expand the business's portfolio with companies in the extrusion industry, he could understand the market and assess the profitability of the individual factories, their strengths and challenges. Initially, this insight was used to streamline individual factories based on the experience of the whole organisation.

But the factories remained individual organisations with a large degree of autonomy and without daily cooperation with each other or with the parent company. With the establishment of Inter Primo Group, the foundation of the future structure was built, and it became easier to create synergies and act globally. To further streamline the structure of the group, the various other kinds of business activities were spun off from Primo and grouped into a new company named Genua, which is run by Fleming Grunnet's daughter, Mette Grunnet.

But then the financial crisis erupted. All entities were affected, revenue fell dramatically, and the following years were marked by downscaling and layoffs. The model that created the biggest extrusion group in Northern Europe was deeply shaken, and the Grunnet family had to reconsider its strategy.

Primo buys the Danish company Totax A/S.
2010

FROM GURU-DRIVEN BUSINESS TO MODERN GLOBAL ENTERPRISE

From 2008 to 2009, the revenue plunged from 950 to 636 million DKK (126 to 84 million Euro), and a third of the employees across the entire group was dismissed. Primo was weakened for years after the financial crisis, and it took time to readjust production to the reality of significantly lower activity.

Inter Primo's CEO, Remy Cramer, had loyally continued to follow the previous course that the board and Fleming Grunnet had set out. Still, it was not enough to regain the organisation's momentum. Even though Remy Cramer led the group through the toughest years with a steady hand, it was also an exhausting time marked by recession and quarterly reports to the banks. For that reason, Remy Cramer became ready to hand over the reins to young blood.

DOWN IN THE ENGINE ROOM

The new CEO of the group was Claus Tønnesen, a young civil engineer with an MBA and experience as an international manager in Poland and China. Claus Tønnesen and Fleming Grunnet had been in contact for years, and his appointment was based on mutual respect and mutual understanding of what constitutes sound business management.

Before being hired at Primo, Claus Tønnesen was working in a position that was the result of a cooperation between a Japanese company and the Danish company Danfoss in Poland. In that position, Claus Tønnesen was responsible for EMEA (Europe, Middle East and Africa). Before that, he was responsible for Danfoss' expansion in China.

When Claus Tønnesen assumed his position at Primo in early 2012, Primo was still bruised by the financial crisis. It was now up to Claus Tønnesen re-energise the company. In his own words, he needed to go deep into the engine room of the organisation to do so.

Back in 2005, the company had invested substantial amounts of money and human resources into a new ERP software system, which contributed to creating a much-needed foundation for common financial management in the organisation. However, Claus Tønnesen found great potential in gathering data and reporting even more systematically.

For that reason, the management group gathered more often to share reports: Similarly, the countries began to use the same parameters as a basis for measurement to make it easier to compare performance among themselves. Unutilised assets were identified, and it became possible to establish best practices in many areas.

"We systematised our reporting. We established a system which could generate credible data and give us an overview of the finances that we didn't have before. The shared access to systematised data made it possible to base discussions on hard facts at the meetings with upper management staff," says Claus Tønnesen.

The systematised data made it clear that the group shared many challenges across borders but also made it easier to identify and take advantage of synergies when tackling the challenges.

DOUBLE SPEED – HALF SCRAP!

Claus Tønnesen joined Primo with the vision to reform and jump-start the company. During the first few years, he would tour the international branches to work closely with the local management for extended periods. For example, he spent eight months at the Danish, Swedish, Polish and German factories, and sometimes the local Managing Director would be replaced in the process. A shared fixed course was outlined at the scheduled Global Management Meetings, and it was essential to capitalise on that momentum. Having a flair for catchy and straightforward slogans, Claus Tønnesen initiated the campaign "Double Speed – half scrap!" in the early 2010s.

The campaign was one of several which aimed at increasing the production speed and reduce waste by 50 pct. Raw materials cover no less than 60 pct. of the costs of Primo's plastic production. Part of the extruded material is waste or so-called scrap. For that reason, the goal of the campaign was to systematise recycling, so what used to be waste could be re-ground and re-used in the extrusion funnel. It worked. The amount of waste reduced by half, and the campaign is still active.

"I want a culture in which we identify our forces and focus on how we can do twice as well in all corners of the company. We must reply to the customers twice as fast, double the quality parameters, and so on. Our project management must optimise internal processes, and then we can go to market with optimal solutions," says Claus Tønnesen.

PRIMO DRIVE – MR EBIT RISES TO THE OCCASION

"Double Speed – half scrap!" was followed by a new campaign in 2014-2015: "Primo Drive". Its purpose was to promote a uniform way to carry out strategies and action plans. The point of departure was a classic analysis of the market and the competition, as well as the business potential, with EBIT - (Earnings before interest and tax) as the principal measuring point. It increased focus and best practices, and the constant emphasis on EBIT gave Claus Tønnesen the flattering nickname, Mr Ebit.

"Ten to fifteen years ago, we were a large Nordic player. Now, we are one of the big players in Europe. This is due to our success in increasing the revenue by picking the low-hanging fruit and optimising the synergies between the countries. This is indeed the result of the projects we completed and those that are still ongoing," says Claus Tønnesen.

OTV is sold to Genua.
2011

CEO Claus Tønnesen and Fleming Grunnet at the 60th-anniversary celebration in Poland in 2019.

BUSINESS AREAS AND COMPETENCE CENTRES

CEO Claus Tønnesen's thorough inspection of the company throughout the 2010s and the extension of the "One Company" strategy drew attention to several inefficiencies related to producing the same profiles in different countries. In some cases, Primo factories even competed against each other. In other cases, external specialists were used for projects that might as well have been solved by a Primo office in another country. There was simply a lack of communication and cooperation across borders. It became clear that the increasingly specialised competencies that modern extruding require are best solved jointly rather than in isolated regional or national silos.

To that end, Claus Tønnesen cooperated with the Country Directors to develop the so-called Business Areas, or BA's, even further.

BUSINESS AREAS CREATE GROWTH

An excellent example was the factory in Dalstorp, which is dedicated to the offshore sector. All elements of the system – the factory, the staff and the storage capacity – is built to cater to the biggest offshore customers in the world. That kind of specialisation yielded good results, and in 2012, it was decided that Medico was going to be the next strategic BA.

Since then the number of BA's has multiplied. Today, windows and doors, gaskets and lighting are essential BA's.

"Historically, Primo has accepted a wide variety of tasks irrespective of the industry the task involved. Our mission has always been to deliver customised profiles. It was less important whether the task was related to one or another sector. We changed that by focusing on our BA's and by aiming directly at increasing our market share in specific industries, creating knowledge hubs and associated, specialised sales organisations," says Claus Tønnesen.

This strategy has been a great success for Primo. Primo's products from the standard catalogue still sell well, but today, the main growth areas are in BA's.

The establishment of BA's includes production, development and a dedicated sales organisation. One example is Medico. Within this BA, product knowledge and the ability to engage in high-level dialogue with the procurement officers are crucial factors for success.

Examples of uses of plastic products in the transport sector.

COMPETENCE CENTRES FOR SPECIALISED PRODUCTS

The new approach to cooperation has also been implemented within the development process. Previously, the tools that decide the shape of the extruded elements would be produced in workshops in individual countries. The fabrication of these tools is the core of Primo's business. By placing this task in one overall Competence Centre, all knowledge can be gathered in one place. This speeds production and improves the level of competencies – which are both essential competitive parameters – while at the same time lowering internal development costs.

Claus Tønnesen replaces Remy Cramer as CEO of Inter Primo.
2012

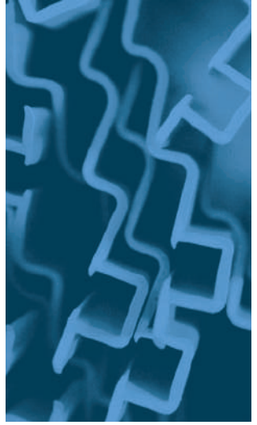
CEO Claus Tønnesen at the anniversary reception.

Primo is the only company I know of that produces all types of extruded plastics – and earns money doing so. It is our strength that we have never restricted ourselves to specific industries. Still, to keep momentum in the future, we must dedicate ourselves even more to the industries in which we can see potential. That way, we can serve both the depth and width of the market.

Claus Tønnesen

Primo Vinduer is sold.
2013

Primo buys all shares in Profilex and its Chinese subsidiary.
2017



A PROFESSIONAL BOARD GETS TO WORK

In 1986 Primo had formed a board consisting of Chresten Jensen, Helge Borg and Fleming Grunnet. Over time, it made sense to pull in new expertise with background from other industries.

For that reason, Primo established a professional board in 1995 to create a classic set-up of a headquarters, a management committee and an active board consisting of experienced, external members to oversee the operations and outline the overall strategy. At first, the original board was supplemented by Jan Magnussen and Remy Cramer, the latter as an observer. Today, the board consists of Fleming Grunnet, Mette Grunnet, Kenny Jensby, Jan Johan Kühl and Gert Kristiansen.

The Primo board meets three to four times a year. Before a meeting, the head of the board, Fleming Grunnet, and CEO, Claus Tønnesen, send documents to the members as a basis for the agenda. A board meeting lasts for about three hours.

According to Gert Kristiansen, a professional board member in more than 20 boards, Primo's board is exemplary.

"Boards of family-owned companies are always interesting. Particularly in Primo, in which Fleming Grunnet is a very active owner. It is exciting to follow, not least because he manages to both be very close to the company and the market and at the same time be very close to the management and the board," says Gert Kristiansen.

The recurring themes on the board agenda are the operating figures, establishing a budget and an investment budget, into which the operations units report. Next on the agenda is the operation units' estimates and the total liquidity. At the initiative of the board, there are usually also items on the agenda regarding the structure of the organisation, the key staff, the competitive environment and potential acquisitions.

Claus Tønnesen uses the boardroom to send up test balloons to see the lay of the land. That is precisely what management should use a board for.

Bestyrelsesmedlem Gert Kristiansen

THE BOARD SETS THE STRATEGIC COURSE

"For example, we have thoroughly discussed the acquisition of Essentra in the Netherlands in several board meetings and the terms of the deal," says Gert Kristiansen.

His impression of the board is that the views of the members are aligned during good times as well as when the economic cycle is on a downturn. During the financial crisis, for example, the board agreed which tools to use to get through the tough times. Claus Tønnesen says:

"We have an excellent board. It is competent, and I use it actively. Fleming is the head, and naturally, his presence is filling up the board room. But he asks the board a lot of questions, and he usually takes its advice and counsel. In my experience, the board has supported me in both good and bad times. I get a lot of autonomy and certainty that the strategic decisions we make have been thought through. That is naturally only possible because we work closely together and trust each other."

2018
EU's first comprehensive strategy for a more circular use of plastics takes effect.

Primo buys Essentra Extrusion in Buitenpost, the Netherlands, and establishes itself in the Netherlands under the name of Enitor Primo.
2019

A NEW SYSTEM IGNITES THE STRATEGY

In Primo, as in all other modern, international groups, the central IT-system of the company provides insight into the economy and its finances and provides a basis for many management decisions. But by the beginning of 2020, Primo's former ERP system had run for 12 years, and time was ripe for a new solution.

"We needed to use IT much more effectively in a number of areas. For example, within the planning of production and capacity, logistics, storage and maintenance of machines. It was also important to streamline all the processes that precede the production of new kinds of profiles – which happens in close cooperation with our customers," explains Group Finance Director Martin Halbye.

With the new ERP system, Primo is further digitized. Warehousing, logistics and procurement is combined into one system that covers the entire process from ordering to after-sales.

FIRST, LISTEN – THEN PICK SYSTEM

Replacing the central IT system is a comprehensive process, but there was no way around it. For that reason, Primo chose to outline the central processes and needs and to get an overview over which countries were best at solving these central tasks.

"Instead of making a 100 pct. top-down decision, we decided to learn from the organisation and then choose a system based on the actual needs and processes, explains Martin Halbye.

"In the course of the next two years, we will roll out the system to all Primo countries. That way, we all follow the same template and draw on shared experiences in the entire group," he adds.

Martin Halbye thus expects that it will be possible to cut two-fifths of the time it takes from the first conversation with the customer about a need till the finished product is leaving the loading bay.

"We are also going to use resources more effectively and will be able to improve the planning of machine maintenance to minimise crashes and delays. The customers will also be able to place an order online by themselves, get a better insight into deliveries and much more. Our expectations are quite big," says Martin Halbye.

2019
The European Parliament adopts an EU-wide ban against disposable plastic products (e.g. straws) to take effect from 2021.

The compoundering factory in Heinola, Finland, is sold to INEOS.
2020

Primo buys Shock Profile's PEC-production lines.
2020

PLASTICS, INNOVATION, AND PRODUCTS

Part 2

THE EXTRUSION PROCESS

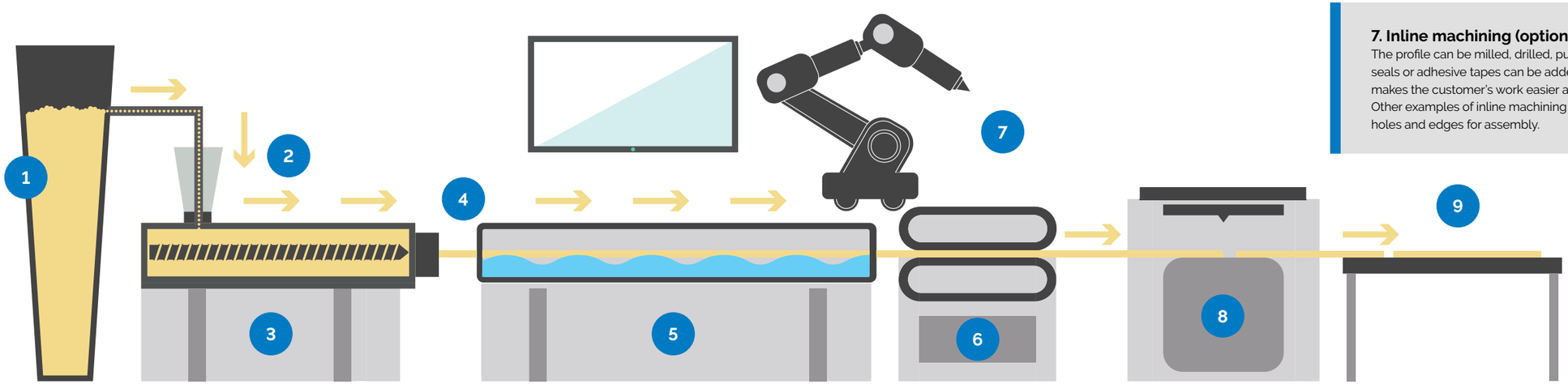
1. Storage and drying
The raw materials are stored in silos and flexible intermediate bulk containers (1t). Before the process, the raw material is dried according to the raw material manufacturer's instructions. Depending on the requirements for the end product, we choose among 40+ traceable polymer types from licensed suppliers. The range includes recycled material.

2. Dosing
The raw material is dosed into the extruder using a gravimetric scale. Masterbatches (colouring agents or other additives) can be added to the raw material to improve the properties of the extruded profile to meet customer requirements such as durability, flexibility, color etc.

5. Calibration and cooling
The calibrator cools the profile and shapes the final form by using vacuum and water or air. High-quality calibration and cooling ensure surface appearance, dimensional accuracy and the desired form.

6. Haul-off unit
Two opposite belts that rotate in uniform speed keep the process going. During the process, inkjet marking is applied to the profile, to ensure production data and traceability of the final product.

7. Inline machining (option)
The profile can be milled, drilled, punched and stamped and seals or adhesive tapes can be added if necessary. This makes the customer's work easier at the assembly stage. Other examples of inline machining are foliation and cutting holes and edges for assembly.



3. Extruder
The cylinder's zone-based electric heaters and screw melts the plastic raw material into a 110-260-degree homogenous mass. A specially designed screw pushes the solid mass towards the die with steady pressure. At this stage more processes can be integrated to optimize the production process, to ease finishing and mounting, and to ensure tightness: Can be co-, tri- og even quad extrusion or an inlet process combining two processes in one; for instance the extruded plastic profile with a metal wire.

4. Die
The pressure pushes the hot mass through the die that gives it its form. The width of the profile can be up to 25 cm and height up to 15 cm. Preparing this phase and the tool, we have challenged your design to improve quality and properties regarding functionality, tolerances, material consumption, sustainability, assembly options etc. The tooling phase is the 'point of no return' and a decisive factor for the final result.

8. Cutting
The profile is cut in the desired length already inline (min 0.02 m, max 16 m). The cutting method is selected according to the profile's shape and raw material. The methods include rotary saw, guillotine, and hot knife. Additional services can be included, such as antistatic coating and welding/assembly of the profiles.

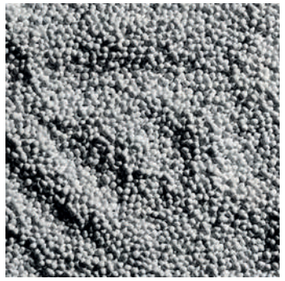
9. Packaging
The packaging method is individually designed for each profile type. The profiles are typically packed in cardboard boxes or wooden crates to ensure sufficient protection and easy unloading, always tailored to your needs and requirements, to ease further handling and to minimize logistic risks. Another service is warehousing of your product for fast delivery and minimizing supply chain risks.

EXTRUSION – A COMPLEX PROCESS

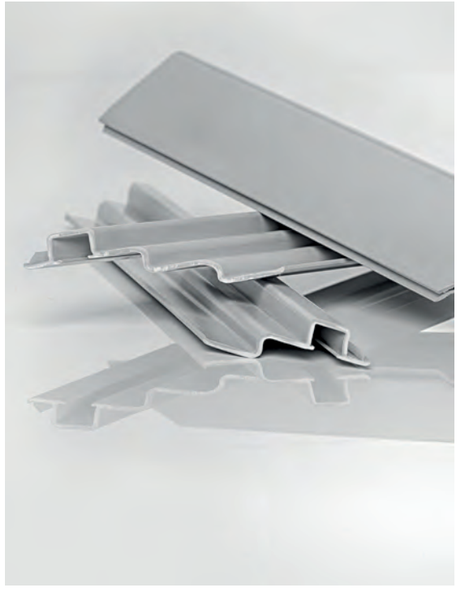
Primo has worked with extrusion for 60 years and has always prioritised innovation and precision. Primo quickly gained a reputation for having an unusually large product catalogue and for being able to produce exact and straight profiles already back in the 1960s, when competitors struggled with curving profiles.

Extrusion is an industrial process in which a malleable mass is put under pressure by a screw and is pressed through a die, also called the tool. Extrusion is a widely used method to shape plastic materials, but it is also used in other industries. The technique is used to a great extent, for example, in the food industry in which as diverse products as minced meat, pasta and even cheese puffs are made by extrusion.

In plastic production, the heated plastic mass is put under pressure by a screw and is pressed through a die. The profile is then cooled down and hardens into its final solid state. This way, a profile can be produced in any length, which is an advantage, for example, when producing parts for cables that are rolled directly onto cable reels.



The raw material for plastic production – here in the shape of granulate.



Primo is known for having a large product catalogue and for being able to produce very precise profiles. Here you see Primo's thermal break profiles used for refrigerators and freezers, where they increase energy efficiency.

It is in Primo's DNA to seek new markets and niches. Pictured here is an example of a system of floor heating tubes, which Primo has marketed.

A PROCESS WITH INDEFINITE POSSIBILITIES

The success of the process depends on several factors in which the temperature plays a critical role. The input consists of plastics in the shape of pellets, granulate, flakes or powder which turns into a homogenous mass when heated. Often various ingredients are mixed to obtain particular properties, such as plasticity, colour, strength, etc.

The heating takes place through several heating elements, which gradually heat the mass to the desired extrusion temperature, as it passes through the screw. This is a way to avoid overheating, which, in the worst case, can ruin the properties of the plastic.

The temperature needs to be measured carefully, as well as the pressure which the screw puts on the plastic mass relative to the given plastic material and the size of the tool. Too high, too low, or too much variation in the pressure can cause tension in the final result. The stress can lead to unwanted twists in the profiles or destroy their strength.

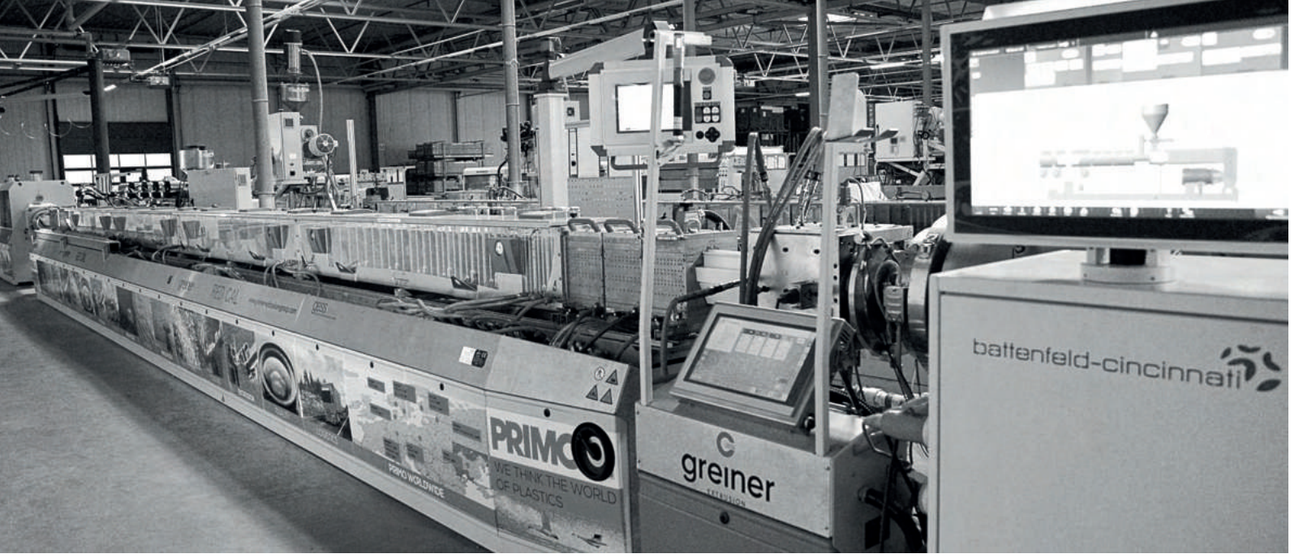
When the mass leaves the extruder, it will be cooled. Tiny pieces can be cooled at room temperature, whereas bigger profiles are led through a basin of cold water. Here, too, meticulous control of the cooling temperature is vital to ensure a homogenous end product free of strain.

When the profile is cooled, further adjustments will often be made. Usually, the profile gets cut up in measured lengths unless it is rolled onto reels. At this point, it is possible to drill holes, add coating and a batch number. The batch number is a quality control measure that makes it possible to go back and find details about the production conditions at the given time.

The most common types of plastics that are extruded today are polyethylene (PE), polypropylene, acetals, acrylic, nylon (polyamides), polystyrene, PVC (polyvinylchloride), ABS (acrylonitrile, butadiene, and styrene), TPE (thermoplastic elastomers), and polycarbonate. Primo, however, predominantly extrudes PVC.

Some products require more properties than a single extrusion can deliver. In these cases, co-extrusion can be an option. Co-extrusion is the process of extruding two types of plastic simultaneously through the same tool as two layers, that are fused by the influence of the heat. Co-extruding is a complex process that puts great demands on the machinery and dosage of materials from both sources.

In rare cases, triple- and quad-extrusion can be applied. These methods require even higher degrees of precision and expertise in the dealings with the materials.



Newer state-of-the-art, digitized production line in Berlin that can produce faster, more accurately and with less waste.

ONGOING INNOVATION LEADS TO NEW PLASTIC PRODUCTS

During the past 60 years, Primo has always operated on the principle of approaching all markets and industries with an open mind. This has not only been a successful survival strategy, but it also has opened doors to new niches.

Just as the production of gaskets for white goods accounted for the majority of the revenue in the 1960s-1970s – and today is greatly reduced - the strategy remains to continually seek new markets and develop products to meet new requirements. That is the reason why Primo's profiles can be found in everything from medical equipment to submarine cables and cars. Throughout the 2000s, Primo has not only followed the demands of the market and the customers' demands and wishes. Primo has also driven the development of new plastic products, of which several have the potential to create an entirely new Business Area and revolutionise existing industries.

Primo developed a gasket made of foam plastic, which combines many functions in one, single material.

Extrusion is a meticulous craft.

REUSABLE GASKETS FOR THE CONSTRUCTION INDUSTRY

For decades, Primo has delivered gaskets for the construction industry. Gaskets must be flexible and durable. At the same time, they need to be able to handle large temperature fluctuations and be easy to clean. That is an abundance of demands, and despite their modest size, gaskets play a vital role in the function of the final product.

The traditional way to produce gaskets for doors and windows has been to co-extrude. This method has made it possible to add a hard part to the final moulding, which makes it easier to install – and one or more softer elements to make the frame, door or window fit tightly. In some cases, other materials such as foam rubber are used to achieve the required flexibility.

The disadvantage of using many different types of plastic and other materials is that it makes it hard to recycle the material, and it also makes the manufacturing more complex. For that reason, Primo has developed a process that makes it possible to gather all the properties in one homogenous material. As part of the procedure, microbubbles are encapsulated into the moulding, which subsequently gets an entirely smooth surface. The mould is made of TPE (thermoplastic elastomers), which has the merit of being both flexible, heat resistant, easy to colour and recycle.

This way, Primo managed to produce a moulding, which is soft as foam rubber while having a smooth surface. The TPE mould is a game-changer in an industry in which the demand for recyclable construction materials has never been higher. Notably, while the sealing capacity is optimal, the cleaning is easy and should the mould get a scratch, it will not puncture, unlike competing products.

Primo's TPE-foam mould will be introduced at trade expositions and will be marketed from 2020.

PLASTIC OFFERS NEW OPTIONS IN THE LIGHTING INDUSTRY

The lighting industry is an exciting and dynamic market in which demand and technology are continually progressing. For decades, Primo has delivered products such as busbars for the lighting industry, which gave the company great expertise and a wide network in the industry.

Primo thus has comprehensive knowledge of the various materials that can be used for lighting products. When demand for LED fittings increased in the early 2010s, Primo could make use of its existing know-how to develop new, safer plastic profiles. This expertise is still evolving – in close cooperation with the customers – both in terms of product development and production.

There are many advantages in using extruded profiles for lighting products, due to the insulating properties of plastics. Primo has managed to incorporate several other highly useful properties into the materials, for example, UV-resistance, light diffusion and chemical resistance. Moreover, it is also less harmful to the environment to use plastics rather than glass or aluminium, considering that plastic materials can be recycled.

In recent years, Primo is also producing linear lenses made of plastic, and halogen-free busbars, which are both safer and better for the environment than previous PVC products.

Plastic is widely used to produce light fittings for the industrial sector.

NEW EXTRUSION TECHNIQUES CREATE MEDICAL PRODUCTS

Primo Medico is continuously developing new products that are safer than existing alternatives and which meet the challenges the pharmaceutical industry is facing. In cooperation with a specialised medical-plastic manufacturer, Primo has developed an entirely new product that has the potential to revolutionise both production and use of medical-grade tubing.

For many years, Primo has produced PVC connectors for medical-grade tubing. It is vital to ensure that the connectors between the tubing and other elastomers are tight and do not leak, for example, tubing that is used for blood transfusions. PVC is highly suitable for this use because of the soft properties of the material and because PVC connectors make it easy to connect and seal the tubing. However, the challenge of using soft PVC is that the added plasticisers are suspected of having harmful health effects. For that reason, the industry has long been searching for useable alternatives.

With the new product, the connectors are now made of TPE (thermoplastic elastomers) instead. TPE excels in terms of its good thermal properties and a high degree of flexibility and durability. Primo Medico's technicians have developed a new TPE connector that makes it possible to produce pipes in two or three layers, which functions as connectors between tubing.

Medical-grade tubes produced by Primo Poland.

Potentially, the new, PVC-free connectors can solve a long-lasting problem for both manufacturers of medical plastic equipment and the medical sector, which is still dependant on PVC-based pipes. Firstly, the polyolefin, which replaces PVC in the new connectors, is chemically stable. That reduces the risk of chemicals interacting with intravenously induced medicine. Secondly, the new TPE connectors are highly cost-effective because of the low density of the used materials, and the TPE connectors are also a greener alternative to the soft PVC.

The new solution will be an attractive alternative for the medical industry, not just for financial reasons, but also for environmental reasons. Now, it is possible to replace all soft PVC products while maintaining existing assembly processes and even improve the functional properties.

The new applications for medical-grade tubing are expected to be ready to market in 2020.

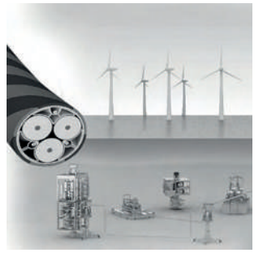
PRIMO PROFILES IN THE OFFSHORE INDUSTRY

Functioning and reliable subsea pipes and cables ensure that electricity, oil, natural gas, and data can flow freely between regions, nations, and offshore units – and are vital elements in the infrastructure of modern society. These years, Primo Offshore is strengthening its position within the field of notably two important cable elements, rods and fillers.

Rods are extruded plastic jacketing that encapsulate the cables and protect the more fragile carriers in the cable. Traditionally, rods have primarily been woven of steel wire, but that is a costly, heavy, and inflexible solution. For that reason, it is increasingly common to replace almost half of the steel with materials based on polymers.

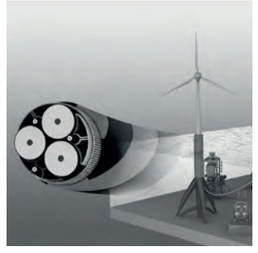
Fillers are the shaped profiles in between bundles of, for example, suspension cables. They ensure that the cable keeps its integrity and shape. Moreover, the filler profiles insulate elements in the cable against, for example, temperature effects from other elements in the cable or from the often extremely harsh surroundings in which the cables are placed and where they preferably will remain effective for many years.

By replacing the traditional solutions with polymers, the costs of production can be drastically reduced. Moreover, polymers lighten the weight of the cable and thus also the wear on the very costly maritime special equipment it requires to place the cables.



Plastic components used for subsea cables in the offshore industry.

Fillers for complex cables with many different pipes and communications cords.



Fillers from Primo keeps cords and tubes in place in subsea electric cables.

PRIMO'S SPECIALISED FACILITIES IN DALSTORP

Primo Offshore has built a unit in Dalstorp, Sweden, that is exclusively dedicated to producing components for subsea cables. In Dalstorp, Primo showcases years of experience producing customised polymer profiles. This can be seen in the material selection process, which depends on where the individual cables are to be placed. Some may be placed in relatively shallow seawater, others several kilometres under the sea where extreme pressure in the worst case can deform the cables and cause costly malfunctions.

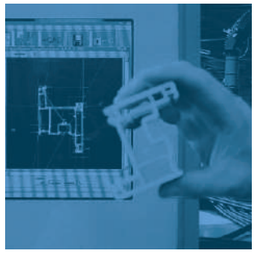
In Dalstorp, both elements for rods and fillers are produced. The factory has the largest product lines in the industry. For that reason, it is quick to accommodate even the most demanding and comprehensive orders. To ensure a stable supply chain, Dalstorp has a storage facility for large projects, from which cable reels are delivered as needed directly to the location of the operation.

INNOVATE TOGETHER – PRODUCT DEVELOPMENT WITH THE CUSTOMERS

Product development is crucial for Primo's business. Developing plastic extruding has always been a process characterised by new technological possibilities and customer needs.

Throughout the years, Primo has developed thousands of products in close cooperation with customers. It is a multi-step process, in which the customer's situation and needs and the precise requirements of the end product will be taken into consideration from beginning to end. The complexity has increased dramatically over the past decades, not least since digitalisation has become a factor, and a large number of certifications and industry-specific production demands must be followed and documented.
The framework for every product development is based on the rich experience the organisation has built up over the years. The framework describes the quickest way to get from idea to a complete product while ensuring the desired quality, price, certifications and documentation.

With the framework, Primo can offer any type of customer a structured process that helps them reach the desired outcome of their project – whether they present Primo with a detailed product description or merely a vague idea of a new product.



Digital prototypes are designed and tested in a virtual environment before they are produced.

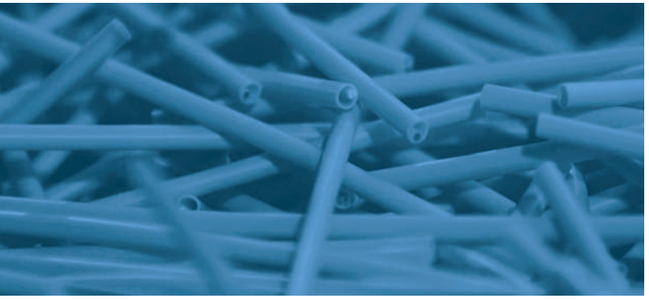
New technology is a key factor.

CEO Claus Tønnesen.

STRUCTURED QUALITY OPTIMISATION

"Innovate together" has not just driven success in the development process; it also acts as quality optimisation because it accounts for all necessary steps in the process. This means, among other things, that all products are automatically documented and described according to the rules and environmental measures which apply to specific industries and markets.

"But even though our product development is more effective and structured today, we still need to increase the speed of the developmental process. It is, in no small extent, an internal challenge. Today, there are many months between the first dialogue with a customer until we can deliver the first completed profile. We need to be a lot faster. But that requires that we get an overview of our processes, bottlenecks, and our resources. Then we can optimise and digitalise, " explains Claus Tønnesen.



THE GREEN TRANSITION IN PRIMO

PLASTIC, SUSTAINABILITY AND THE FUTURE

Today, plastic materials are central to the modern world. But plastic as a waste product poses a number of challenges. This is a realisation that has taken root in Primo and Fleming Grunnet, who states that "Plastic can be used for many things – and the question we have to ask ourselves is whether it is being used for too many things?"

The challenge is double-sided. On the one hand, plastic is an unmatched material in many ways. In many cases, it can be more resource-efficient to produce and more durable than comparable materials. If handled correctly, it can be an essential element in solving many global sustainability-oriented challenges. On the other hand, the amount of plastic waste is in itself a pressing challenge for the international community, the environment and the industry. The challenge is most visible when disposable plastic ends up in nature as non-biodegradable waste.

> **Plastic can be used for many things – and the question we have to ask ourselves is whether it is being used for too many things?**
>
> Fleming Grunnet

PRIMO TAKES UP THE CHALLENGE

Primo has chosen to take up the challenge by launching a string of internal initiatives and by implementing a green transition in cooperation with customers and organisations.

The initiatives will reduce the amount of plastic waste generated from production and underpin a more sustainable use of plastics. The measures cover three main focus areas:

- Internal measures to optimise the re-use of scrap from production by investing in technology that can handle all types of cut-off and sawdust from Primo's output. Consequently, more than 20 pct. of the PVC used in Primo's global products is made of recycled granulate from Primo's own factories.
- Handling of residual products from the customers' processing of profiles from Primo. This is more complex since it involves cooperation with external actors. But several cases show that the initiative functions well, both by being able to save tonnes of waste and by being economically sound.
- Binding cooperation with international organisations, in which the actors in the plastics industry formulate common guidelines for how to generate the least possible amount of waste from plastic production.

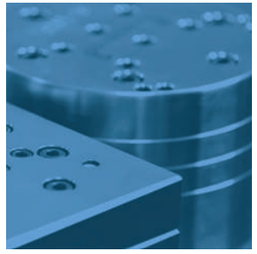
The initiatives share the common goal to promote an environmentally sound approach throughout the entire life-cycle of a plastic product, from production through processing in the construction sector until the scrap is recycled.

Obsolete PVC pipes ready for recycling.

PLASTIC RECYCLING: A GLOBAL CHALLENGE

Plastic has become a symbol of modern society, for good and evil – the latter, particularly in recent years. The sight of discarded plastic bags, bottles and fast food packaging tossed in the forests is almost like an enduring reminder of humanity's common obligation to be better at cleaning up after ourselves.

The challenge is to minimise or preferably eliminate plastics as a pollutant. Consumers, as well as politicians and environmental organisations, expect action from the plastic industry. This is crucial for the future of the industry when plastic not only has to fight its traditional image as representing everything artificial and cheap but also as outright harmful to especially the marine environment. Today, plastic pollution is a global problem which is high on the agenda of environmental organisations, governments, companies and private households.



New materials and circular business models can speed up plastic recycling.

PLASTIC IS MUCH MORE THAN CHEAP DISPOSABLE PRODUCTS

Now, Primo and the entire plastic industry have to clarify the nuances of reality. The truth is, there is more to plastic than cheap disposable products. Plastic is omnipresent and has contributed to making the technological development of the past 60 years possible. Cars, computers, construction, aeroplanes and kitchen machines could not have been produced as effectively, cheaply or of high a quality as we see today if plastic had not been part of the designs. Our daily lives simply would not work without plastic.

Furthermore, high-quality plastic products are often a sustainable alternative to other materials and can ultimately contribute to minimising the CO_2 footprint of the construction industry, among others. In a range of areas, plastic is superior to other raw materials, such as wood and metal. One example is window frames made of plastic, which are objectively better than wooden frames on just about all parameters, including energy use, maintenance, durability and recycling.

A VOICE IN THE DEBATE

This duality has long been a known challenge, and Primo intends to be a much more active voice in the debate over the coming years. It will point out that plastic should not be used for everything, but - just like all other materials - should only be used when it is the best and maybe even the most sustainable choice.

Primo's initiatives have many facets, one of which was advanced in an op-ed in the Danish newspaper Børsen in May 2019. In the op-ed, Claus Tønnesen argued that it was not only possible but necessary to phase out the use of disposable plastic products, which are hard to recycle and typically end up as waste scattered in nature.

Accordingly, Primo has established a range of circular recycling arrangements in which homogenous plastic material with known properties is collected from industrial customers. That is more effective and less complicated than collecting plastic from, for example, consumers who generate many different kinds of plastic waste.

On the one hand, demand for ever more specialised plastic products is increasing, and we have to keep up with the development and produce environmentally friendly plastic alternatives to carbon-intensive materials such as wood and metal. On the other hand, we cannot accept that some of our products – particularly in the third world – end up in the oceans.

Claus Tønnesen in Dagbladet Børsen

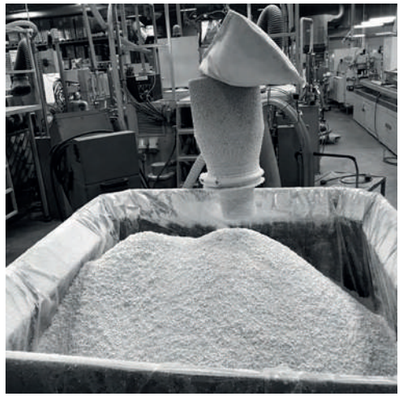
SUSTAINABLE INITIATIVES STRENGTHEN THE GREEN PLASTIC ECONOMY

A key challenge for the plastics industry is to promote recycling and reasonable use of plastic. Part of the task must be addressed in conjunction with public authorities, private companies, and research institutions. In other cases, each company must try to increase the sustainability of its products and materials. At the beginning of 2020, Primo works across all fields to meet that goal. On the following pages, three selected initiatives will be described.

BERLIN REDUCES ITS WASTE

At Primo's factory in Berlin, a mixing silo mixes cut-off PVC from Primo's own profile production with PVC scrap bought from dealers. The technology was installed in October 2018 as part of Primo's efforts to reduce the industrial waste of the company.

Plastic production will always generate a certain amount of waste. However, new technology and a steadily growing insight into materials and machines can reduce, but not entirely eliminate, the amount of waste. There will always be some plastic that cannot be sold.



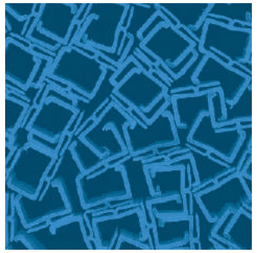
Granulate made of recycled plastic ready to use in new products.

RESIDUAL MATERIAL: FROM WASTE TO RESOURCE

In the infancy of plastic, scrap was treated as industrial waste, but today, almost all of it is recycled. To prepare the scrap for recycling, Primo grinds – or regrinds – the scrap into tiny pieces, which can be re-used to produce new plastic products.

Plastic dust is another byproduct from extrusion. This is generated from the cutting of profiles after the extrusion. Previously it was not possible to process this dust, so it ended up in the garbage container. But in the facility in Berlin, the dust can be mixed with plastic granulate to produce certain profiles, if customers agree to it. The recycling of dust further increases the sustainability of the production.

Presentation of a new production line in Berlin.



A GREAT DEMAND FOR SUSTAINABLE PRODUCTS

During the first year of the lifetime of the new recycling equipment, Primo reground 900 tonnes scrap and PVC for reuse in profiles for doors and windows. Two-thirds of the scrap, or 600 tonnes, is recycled plastic purchased from outside suppliers, while one-third, 300 tonnes, is cut-off from the production line in Berlin. Those 300 tonnes actually make up the entire amount of residual PVC generated by the Berlin factory.

Furthermore, it has been a breakthrough for Primo's recycling success that it is now possible to avoid discolouration almost entirely. The high colour accuracy increases the possibility to recycle even larger amounts of plastic.

The feedback from Primo's customers has been positive, and a growing number of customers demand sustainable products. The success of the recycling process in Berlin shows that recycled materials from plastic production can go hand in hand with high, homogenous product quality.

BINDING NATIONAL AND INTERNATIONAL ENVIRONMENTAL COOPERATION

PVC is 100 pct. recyclable if treated correctly. Primo was one of the initiators of the Danish WUPPI system, a country-wide, circular system to collect and recycle PVC from building materials. WUPPI launched in 1997 as a result of a partnership between PVC manufacturers, importers, craftsmen, waste management companies and most Danish municipalities. The PVC waste is collected in containers and then becomes part of a cycle in which it will be used in new PVC products.

Primo's engagement in environmentally-friendly treatment of plastic waste is an international priority for the company, as Operation Clean Sweep shows.

PLASTIC RESIDUE STAYS IN THE FACTORY

Operation Clean Sweep (OSC) is an international, voluntary programme to prevent plastic pollution from industrial production. The ambitious goal is to eliminate plastic waste. The American plastic industry initiated the programme, which has support from a wide range of industry organisations worldwide.

OCS describes how companies can prevent all sorts of plastic waste from leaving the premises.

In 2018, Primo implemented the OCS programme in all company facilities. For example, Primo has launched a number of initiatives to stop plastic waste from dust, flakes and granulate, which could otherwise easily blow out of a door opening, run down a drain, or find another way out to end up in nature.

Primo fulfils its commitments by, among other initiatives, educating its staff in proper handling of plastic waste. That entails simple steps such as being better at sweeping up residue from the floors. On the other end of the spectrum, Primo committed itself to implement comprehensive monitoring procedures to control and document the results of the initiatives.

A CIRCULAR BUSINESS MODEL WITH VELUX

For years, Primo has experimented with circular business models in which plastic waste and residue from the customers' plastic processing is returned and reused by Primo. For example, the company extrudes window profiles for a number of window manufacturers, including Danish VELUX, which produces window frames in Slovakia for the European market. From Berlin, Primo delivers the profiles to VELUX in long pieces. VELUX then cuts the profiles to bevel the ends before the windows are assembled and mounted.

That process generates two residual products, cut-off from the bevelled ends and dust from the milling stations at VELUX. Both are pure plastic products. For that reason, they are well suited for recycling, says Jan Pedersen. He is Primo's Key Account Manager for VELUX and other customers. Jan Pedersen has worked with VELUX since 2011 and has worked for Primo for more than 30 years.

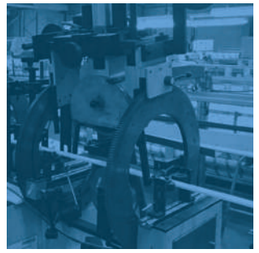
"During the early 2010s, we sat down with VELUX, to find out how we could lower the costs. What began as a wish to save, turned into the starting point of a green business model with great potential, not just in terms of the cooperation between VELUX and Primo but for the whole industry," says Jan Pedersen.

EFFECTIVE RECYCLING GENERATES ECONOMIC TORQUE

The cooperation with VELUX is unique in many ways. Primo supplies profiles that consist of two different types of PVC plastic, one soft and one rigid. These two plastic materials are chosen so they can be granulated and recycled in one single process. The only disadvantage of that is that the process discolours the plastic: But Jan Pedersen solved that challenge by using the recycled plastic for mounting frames that are hidden under the roof. For that reason, more than 50 pct. of the plastic used for these frames can consist of recycled plastic.

On an annual basis, hundreds of tonnes of cut-off are recycled. The recycled plastic is transported from Slovakia back to Berlin on the same trucks that delivered Primo's profiles to VELUX. That way, the trucks avoid returning home empty.

"The alternative was driving plastic waste to a landfill. Instead, we now have a sensible business model for recycling it. The waste is just as good as the raw material we would otherwise have bought. Considering that the price for the raw material, it makes economic sense to recycle," says Jan Pedersen.



LARGE POTENTIAL FOR PLASTIC AS A GREEN MATERIAL

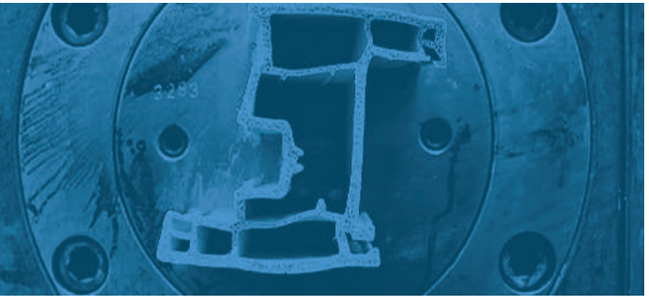
The ample support behind the project from VELUX is not unique. There is ubiquitous interest in establishing models for plastic recycling, and Primo is well underway to develop a formula for circular business models.

"We have created a zero-waste culture at Primo. Our investments in machinery and our knowledge about the materials will soon let us offer a guarantee that we can take back entire windows after many years of use. Recycled plastic is a resource for all stakeholders," says Jan Pedersen.

Currently, Primo is intensively studying what happens to the recycling properties of plastic over time. This work is part of a cooperation with laboratories, which are testing pigmentation, heat stability and other parameters in recycled plastic. In many cases, there is no difference at all between the original product and the recycled product. In other cases, it loses some of its properties. It is in these cases we need to obtain a deep understanding of the materials. Using the right processes, additives, and a mix of new material and recycled plastic, Primo can produce profiles within tolerance levels. That is particularly crucial when plastic is recycled in several stages.

"We are still in the early phase and can see that a lot is happening in this field across the entire organisation. We have re-grinders in all production units, and our customers are very interested in discussing the perspectives. When you compare plastic to other products, it is clear that plastic has some recycling properties you don't see in other materials. That gives us confidence that - if treated wisely - plastic can be a green material, which can be part of the solution to our global challenges," says Claus Tønnesen.

Assembling of plastic windows.



PREPARED FOR THE CHALLENGES
AND OPPORTUNITIES OF THE FUTURE

A STRATEGY FOR THE FUTURE

The Primo Group had a few hard years after the financial crisis. But the organisation came out stronger on the other side with a new leadership team, and the strategy and profile had gotten a major revamp. That history reveals itself in the way the board eco-optimises the handling of materials and recycling across the company. Another sign of strength is that Primo's products increasingly replace materials that have a more negative eco- and carbon footprint across as widely diverse sectors as the construction, the medical and the offshore industries.

Primo's new strategy is future-focused, in both economic and environmental terms. The latter is more important than ever.

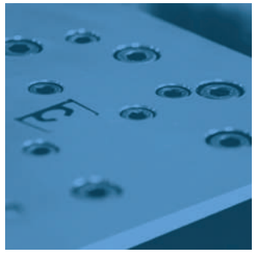
A great deal of new research focuses on plastics, which continually leads to new opportunities.

NEW MARKETS ARE CRUCIAL

Primo has developed at a raging pace over the past few years and is now the leading plastic extrusion group in Northern Europe with customers across the globe. But new markets are vital for the future of Primo. History has shown that the products that were the foundation of the company in one decade, could easily disappear in the following years. An example of that was the heavy focus on gaskets for the Danish white goods industry. In the 1970s, there were eight white goods manufacturers in Denmark, but by the end of the following decade, they were all gone.

In Primo's 60-year history, changing markets has been a fundamental, decisive factor in Primo's development into the company we know today. The constant evolution shaped a group that learned how to adapt, find new niches and grow, even when large markets close down. The markets change, but plastic extrusion has shown its worth as a technology with a unique potential, and Primo is experiencing an increasing demand for new customised products.

Extrusion is here to stay, and contrary to other basic materials such as wood and metal, plastic and other materials that can be extruded are developing fast. For example, recent experiments show that plastic can be fortified to such an extent that the material can compete with steel. This can turn the processes of the construction industry upside down and provide ample opportunities for designing entirely new types of large-scale constructions – thanks to the low price and weight of plastic compared to iron and other metals. This is just one of many exciting, new possibilities we see coming in the future.



Challenges have been our business driver, and we constantly had to look for new business areas. Each time one business venture ended, we had to think hard and ask ourselves: What are we going to do next?

Helge Borg, former CEO of Primo.

EXPANSION LIVES IN PRIMO'S DNA

Primo is a unique company, which by virtue of its history, employees and solid foundation in the Grunnet family has managed to thrive for 60 years. As CEO Claus Tønnesen explains:

"As employees of Primo, we are very privileged. Daily, we are witnessing how a family-owned company is developing and creating growth due to extraordinarily persistent work. It is an unusual journey and history about success and expansion, which continually emanates from the Grunnet family's engagement."

Aggressive expansion lives in Primo's DNA, and it is an adopted part of the company strategy to grow both organically and through acquisitions. In the summer of 2019, Primo completed its most recent acquisition, that of Dutch Essentra Extrusion, which was a plastic extrusion pioneer back in the 1950s.

The consolidation process is far from over, and Primo is still looking for companies that it can add to the business. At the same time, Primo engages customers around the world and always considers where and when to establish production in the same areas as the customers' new activities.

For years, Fleming Grunnet has been a travelling, outgoing and proactive force, and his calendar reveals a tightly packed meeting schedule at home and abroad. Sometimes a meeting leads to a concrete result, other times not – and sometimes meetings are cancelled. But overall, his outreach has shown its worth through the Primo Group's 28 acquisitions over several decades.

Primo is the result of aggressive expansion and 28 acquisitions.

THE THIRD GENERATION RISES TO THE OCCASION

Primo' s 60th-anniversary celebration in Tistrup in the summer of 2019 coincided with Fleming Grunnets 80th birthday. Board member and third generation in Primo, Mette Grunnet, expressed it this way when she gave a speech for the employees, partners and not least her father at the occasion:

"It is something quite special we have created here and something of which all employees in the organisation can be proud. Everything in the production is spick and span, and you feel the Primo spirit when you are met by smiling, happy people everywhere you look. But Primo is not the only one to celebrate today. Today, we also celebrate my father's birthday, and I would like to congratulate him.

You are Mr Primo. Few can match a CV like yours. Over the years, Primo has completed no less than 28 acquisitions, and you have been deeply involved in every single one of them. You started in Denmark and then turned to Scandinavia, the rest of Europe and are now also represented in both Russia and China.

You also founded Genua, which is the sum of coincidences. While Primo is specialised, Genua represents breadth. You are also co-founder of JFK – an inspiring alternative to the big venture capital funds and the way they behave. With venture capital from JFK, you have helped a wide range of companies, and one thing that characterises your engagement with these companies is your unrelenting sense of social responsibility.

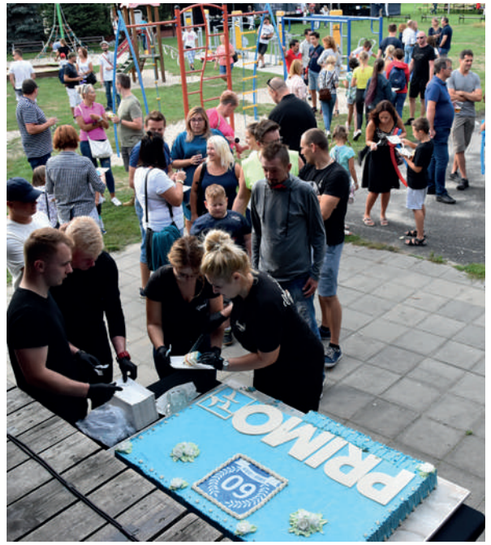
You have been vice-chairman of the trade organisation for the plastics industry, of which you were recently made an honorary member. You fought for Varde Bank, and your efforts awarded you the honorary royal medal the Order of the Dannebrog. Even though you are involved in a wide range of organisations, you never shirk your responsibilities – even during tough times – and you always knew that no matter how hopeless it may look in one moment, the sun always rises in the morning.

You navigate with your heart. You do not need Excel sheets and byzantine calculations when you set your course. You want to make your move. Congratulations on the 60 and 80 years!

Mette and Fleming Grunnet at the celebration of Primo's 60th anniversary in Tistrup, Denmark.

60TH ANNIVERSARY

Primo's 60th anniversary was celebrated simultaneously with Fleming Grunnet's 80th birthday.




PRIMO
60


60
YEARS
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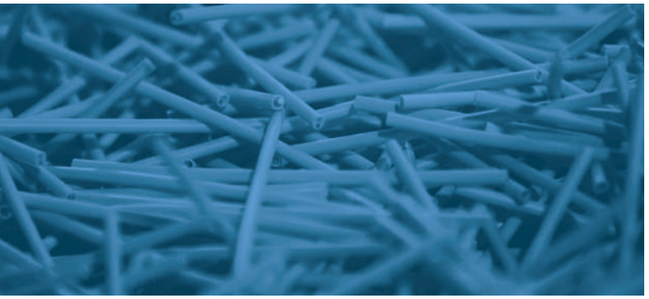
60

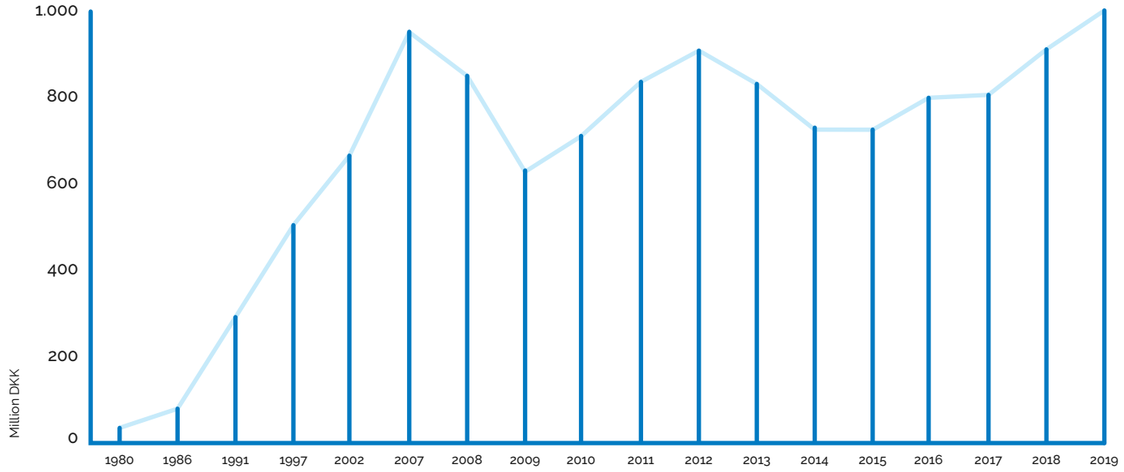

PRIMO


PRIMO



FACTS

REVENUE



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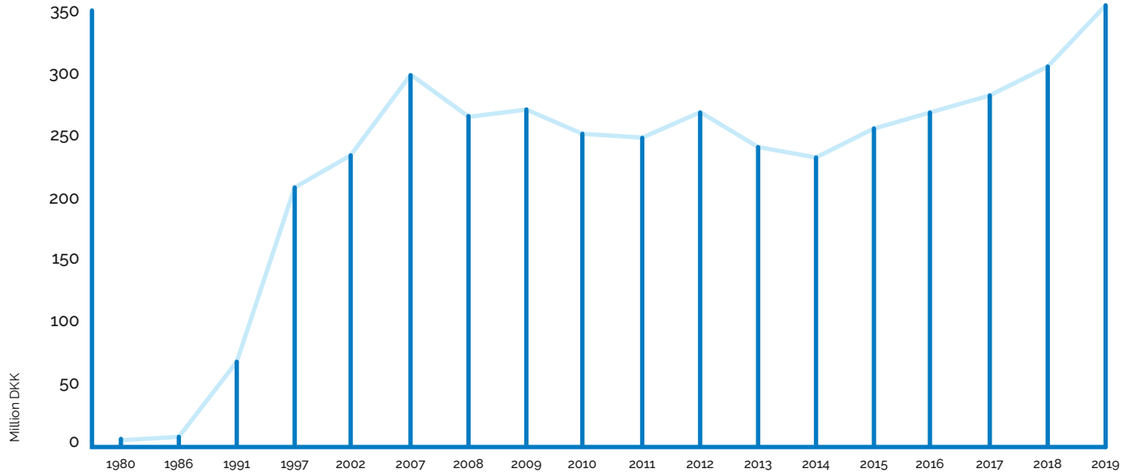
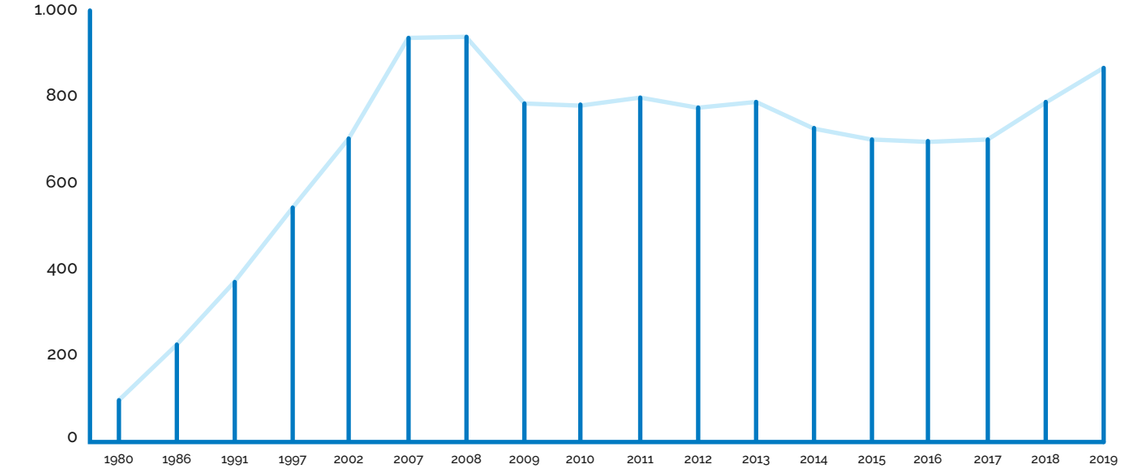
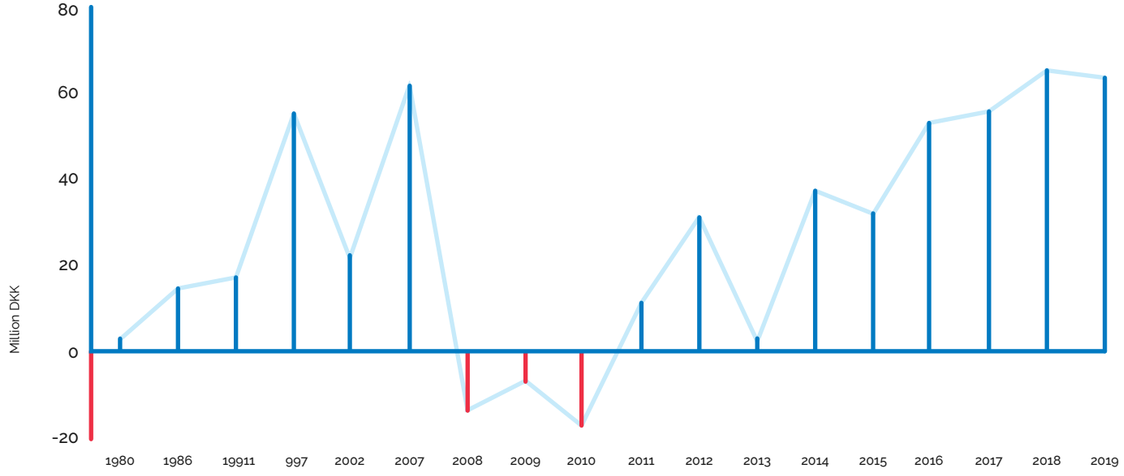


NUMBER OF EMPLOYEES



EARNINGS BEFORE TAX



Then he felt quite ashamed, and hid his head under his wing,
for he did not know what to do.
He was so happy, and yet not at all proud,
for a good heart is never proud!
He has been persecuted and despised for his ugliness,
and now he heard them say he was the most beautiful of all the birds.
Even the elder-tree bent down its bows into the water before him,
and the sun shone warm and bright.
Then he rustled his feathers, curved his slender neck,
and cried joyfully, from the depths of his heart.

“I’ve never dreamed of such happiness as this, while I was an ugly duckling!”

HANS CHRISTIAN ANDERSEN