


# Young

Greiner Group  
Annual Report 2017

A misty forest landscape with a large white geometric shape on the left side. The text is overlaid on the white shape.

We also feel  
an obligation  
to what has  
always existed



# Key figures

ACTUAL in EUR million, joint ventures prorated

	2017	2016
Consolidated sales revenues	1,579	1,475
Cash flow	148	148
Investments	138	101
Employees	10,567	9,722
Sales per employee	0.15	0.15

## Group structure

### *Greiner Holding AG*

Kremsmünster, AT

Management Board: Axel Kühner, Hannes Moser

#### → *Greiner Packaging International GmbH*

Plastic packaging for food and consumer goods, technical parts

Business Units: Packaging, Assistec

Headquarters: Sattledt, AT/CEO: Manfred Stanek

#### → *Greiner Bio-One International GmbH*

Medical technology, diagnostics, life sciences

Business Units: BioScience, Preanalytics, Mediscan

Headquarters: Kremsmünster, AT/CEO: Rainer Perneker

#### → *Greiner Foam International GmbH*

Foam for comfort, sport and technical applications, aircraft seat cushions, boiler insulation, interior parts and sound insulation for cars

Business Units: Eurofoam, Greiner Perfoam, Unifoam, Greiner MULTifoam, Greiner aerospace, Greiner PURtec

Headquarters: Kremsmünster, AT/CEO: Michael Schleiss

#### → *Greiner Extrusion Group GmbH*

Extrusion lines, tooling and plants

Business Units: Windows & Doors, Building & Construction, Technical Profiles, Greiner Production Network


Headquarters: Nußbach, AT/CEO: Gerhard Ohler



**150**  
**Years**

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# The Greiner Group: Global success in four divisions

*Founded in 1868 in Nürtingen, Germany, with its four operative divisions, Greiner Packaging International, Greiner Bio-One International, Greiner Foam International and Greiner Extrusion Group, today the Greiner Group numbers among the global leaders in the plastics and foam industry. The products of this worldwide concern are omnipresent in daily life whether as yoghurt cups on the breakfast table, cozy foam mattresses, car and aircraft seats, blood collection tubes in medical practices, or as part of plastic window frames.*

*The group has also given a long-term commitment to Upper Austria as its business location through the commencement in 2017 of the enlargement of its headquarters in Kremsmünster to form the Greiner Campus, a modern office and training center.*





*Greiner Packaging.  
Do the Innovation.*

Greiner Packaging is one of the predominant manufacturers of plastic packaging in both the food and non-food sectors. The company is active worldwide via an efficient network of 34 locations, which employ a workforce of over 4,800.

*Greiner Bio-One.  
Your Power for Health.*

Greiner Bio-One is a global player in the field of medical technology and life science. With over 2,200 employees and 26 locations, Greiner Bio-One is a leading producer of quality products for laboratory requirements.

*Greiner Foam International.  
Foam for Life.*

Greiner Foam International is regarded as one of the world's most successful manufacturers of special foams. With a network of 63 locations and more than 2,500 employees (joint ventures prorated), the company guarantees customer proximity, minimum delivery times and top quality.

*Greiner Extrusion Group.  
Keeping you ahead in Extrusion.*

Greiner Extrusion Group is the world's leading supplier of extrusion lines, tooling and complete systems for profile extrusion. With eleven production and service locations, and over 800 employees, the Extrusion Group is ideally equipped for the international market.



Visualization of the Greiner Campus  
in Kremsmünster (Austria).

# The positive business development of past years continues

*The Greiner Group can again look back on a successful financial year. Moreover, not one but two premieres could be celebrated in 2017, as for the first time both the global workforce passed the 10,000 employee mark and consolidated sales revenues exceeded EUR 1.5 billion.*

A thriving world economy does not only generate advantages. Indeed, a positive mood in the markets generally leads to a sharp rise in material prices, which cannot always be passed on promptly and in their entirety. Moreover, the global political scene continues to be plagued by marked uncertainty with anxieties and protectionism in its wake.

High raw material prices, exchange rate volatility and shifting customs and tax barriers characterized some of our markets in 2017. Nonetheless, in spite of these difficult preconditions, all four operating divisions acquitted themselves well in this environment. Indeed, consolidated sales revenues rose to EUR 1.579 billion and employee numbers increased to 10,567.

In the strategic triangle formed by diversification, innovation and globalization, global ties, that are also regional, enabled us to achieve growth while reducing the dependence upon individual markets and branches.

As a revenue-oriented business concern, we are thus able to steadily consolidate our market leadership, while at the same time not losing sight of our social, communal and ecological responsibilities. Furthermore, as far as sustainability is concerned, through our inter-group Plastics for Life strategy we wish to be a

pioneer in our own industrial field while simultaneously securing our positive corporate development in the long-term.

In 2018, the family-owned Greiner Group will be 150-years-young! A birthday that is the result of responsible business practice, untiring endeavors across the generations and at the same time prudent financial management. Moreover, we have also drawn up ambitious growth and investment plans for the future with which we wish to attain a lasting increase in corporate value. Accordingly, the constant aim of all our initiatives is the securing and preservation of our autonomy and independence.

Since time immemorial, family values and the outstanding quality of the relationships with all stakeholders have shaped our enterprise. Therefore, we would like to express our gratitude to our entire workforce, which during 2017 once again made a major contribution to positive development, as well as to our customers and partners for the trust demonstrated on a daily basis. Last, but not least, our special thanks go the Supervisory Board and our shareholders for the collaborative partnership.



Axel Kühner  
CEO

Hannes Moser  
CFO



The Supervisory Board  
Erich Gebhardt, Chairman / Claus Peter Bernhardt, Deputy Chairman / Regine Hagen-Eck, Member  
Christoph Greiner, Member / Andreas Ludwig, Member / Gerald Schinagl, Member  
Dr. Tilman Schad, Member / Dr. René Wollert, Member / Georg Kofler, Employee Representative  
Maximilian Gressenbauer, Employee Representative / Ernst Zimmermann, Employee Representative / Markus Rohrauer, Employee Representative

# Shaping sustainable future

*A sustainable corporate orientation demands a healthy financial basis. It permits out of the box thinking and investments in new ideas, innovations and markets. In 2017, the Greiner Group further consolidated its market leadership in important business areas and thus once again demonstrated the solidity of its foundations.*

Since it was launched 150 years ago, the Greiner Group has been characterized by pioneering spirit and resolute adherence to a strategy of sustainable growth. Within this context, globalization, innovation and diversification represent the predominant success factors and in future they will also serve to secure and extend market leadership.

The success over one and a half centuries is attributable to the owning family, customers, partners, employees and the Greiner Group Board of Management. It should also serve as an incentive to continue to consider the future intensively and push ahead with internationalization and diversification through systematic expansion in strong growth markets. In this regard, sustainable action represents both a major

opportunity and a driving force for innovations, new technological developments and positive change, and will also underpin the success of the Greiner Group in future.

Our thanks and recognition go to the more than 10,000 motivated and dedicated Greiner Group employees around the world for the outstanding work and support that they once again rendered during the past financial year. Our heartfelt gratitude also goes to the Greiner Group Board of Management for the constructive cooperation and consistent implementation of corporate strategy.



*Erich Gebhardt*  
Chairman of the Supervisory Board

# 150 years of innovation and tradition

*In 2018, the Greiner Group celebrates 150 years as a family-owned enterprise. What began in 1868 in Nürtingen, Germany, with the foundation of a small general store by Carl Albert Greiner and his wife Emilie, is now a leading global concern in the plastics and foam industry with over 10,000 employees at 139 locations in 33 countries.*

Those that think in terms of generations, think differently. Therefore, it was and is entrepreneurial courage, a clear value-orientation and family solidarity that form the foundation of our success. As the owning family, we assume responsibility in a social, ecological and economic regard. Moreover, we ensure that 150 years of continual growth remains secure, endeavor to play an active role in the shaping of strategic orientation and further unify the value landscape of both the family and our undertaking.

Today, some fifty persons possess Greiner Group shares and the entire family consisting of marital partners, children and existing and future shareholders comprises well over a hundred members. A large part of the family meets several times a year for plant visits, the Annual General Meeting, or joint activities. The Board of Family Shareholders unites all the interests of the owners, which it represents with regard to both the Supervisory and the Management Board.

150 years of innovation and tradition are worthy of celebration. However, they also oblige us to express our thanks and recognition to our employees, customers, partners and suppliers. They all represent part of the foundations of our success and have helped to build up our group to what it is today, a widely diversified global player with over 10,000 personnel.

The Board of Family Shareholders



Peter Greiner




Christoph Greiner



Barbara Mechtler-Habig



Dominik Greiner



Claus Bernhardt





# 150 years Greiner Group: Entrepreneurial masterpieces in cork and plastic

*When the corks pop in celebration of Greiner's 150<sup>th</sup> birthday, this will be very much in the spirit of Carl Albert Greiner, who in the second half of the 19<sup>th</sup> century literally began their production with his bare hands at his general store in southern Germany. Today, the Greiner Group is a global leader in the plastics and foam industry with over 10,000 employees on virtually every continent and is active in business areas, which the founder could not have imagined even in his wildest dreams.*



1868 to 1890  
Cork production  
in the  
general store



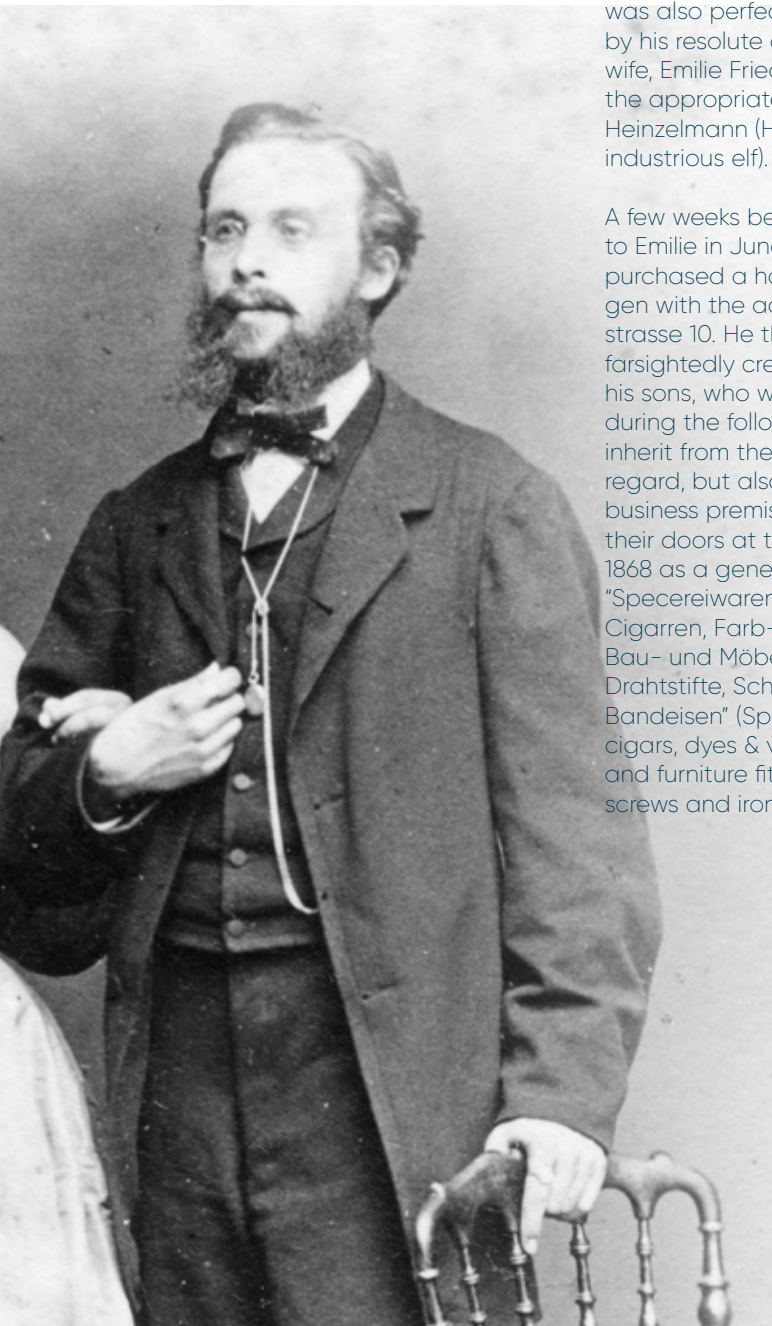


The trained retail merchant Carl Albert Greiner was born in 1841 in the district town of Nürtingen near Stuttgart in Germany and founded what has subsequently become the global Greiner company. In addition to entrepreneurial conscientiousness, he also possessed virtues that included ambition, a readiness to take calculated risks and a creative inventiveness in tandem with an understanding of everything technical. Carl Albert Greiner was also perfectly matched by his resolute and industrious wife, Emilie Friederike, who bore the appropriate maiden name Heinzelmännchen (Heinzelmännchen = an industrious elf).

A few weeks before his marriage to Emilie in June 1868, Greiner purchased a house in Nürtingen with the address Neckarstrasse 10. He therewith not only farsightedly created space for his sons, who would be born during the following years and inherit from their father in every regard, but also the first Greiner business premises. These opened their doors at the end of October 1868 as a general store selling "Specereiwaren, Taback und Cigarren, Farb-Waaren & Firnisse, Bau- und Möbelbeschläge, Drahtstifte, Schrauben und Bandeisen" (Spices, tobacco and cigars, dyes & varnishes, house and furniture fittings, brads, screws and iron strip).

As early as the following year, son Theodor Carl came into the world in the family apartment over the shop and his father found peace and quiet with a hobby, that as from the winter of 1873 became an after work routine. This was the manual crafting of corks, which he used as a stopper for the soda water that was also home made in Neckarstrasse 10. However, Carl Albert Greiner would not have been a businessman had he not thought about how to simplify and accelerate the laborious and time-consuming cork production process. Accordingly in 1875 he built a cork-cutting machine for which he received a patent in 1876, the year in which his son Hermann Albert was born.

Word quickly spread amongst the local business community that thanks to his new production process, Greiner could offer favorably priced and precisely cut cork stoppers. As a result, a growing number of colleagues, initially from the region and subsequently from across Germany, ordered corks for beer, cider, wine and liqueur bottles. Pharmacists also started to seal their bottles with corks from the Neckarstrasse and steadily the general store turned into a sideline, which was eventually sold off by Carl Albert Greiner in order to be able to concentrate on his most profitable business venture; corks.



Emilie and Carl Albert Greiner.



The Schaffermühle in Kremsmünster (Austria), the foundation stone of today's group headquarters.



The second generation, Theodor, Reinhold, Adolf and Hermann Greiner.



# 1890 to 1950

## Out into the wide world

Working with the material cork thus became Greiner's core business activity and the sons of the founder proceeded to expand it greatly. Apart from Theodor and Hermann, these now consisted of Adolf Julius (b. 1879) and Reinhold Wilhelm (b. 1881), and as the oldest of the quartet, Theodor, staked out the path to the future for the others. The route led out into the great, wide world and aged just twenty, Theodor gathered foreign and business experience in Odessa. He then traveled to Portugal, Spain, Sicily and North Africa as a cork buyer in order to secure supplies for the production in Nürtingen.

In 1897, Theodor Greiner also managed to avoid the high import duties of the Habsburg monarchy by opening a branch in the Empire. He selected Upper Austria as a location and on 1 May leased a scythe smithy in Micheldorf, where from 1898 onwards, his brother Hermann headed the cork production. However, the premises were anything but suitable for expansion and therefore father Carl Albert started to search for an alternative with its own hydro-power plant. He stumbled upon the Schaffelmühle in Kremsmün-

ster and on 6 April 1899 signed a purchase agreement in the presence of the local savings bank and thereby laid the foundation stone of the group headquarters of today.

The modifications to the mill tested Carl Albert Greiner's patience to the full; as for him everything progressed far too slowly. In a letter to his son Theodor from 1 May, he complains that: "The people work (...) ponderously, although this also has to do with the construction of the building, as with these thick walls breaking out a window and then replacing it takes half an eternity. I start to feel checkmate when I see that all the driving and chasing on fails to help." However, nevertheless the day was to arrive when cork production could commence in Kremsmünster.

The availability of cork was the number one priority for production in both southern Germany and Upper Austria. And therefore, in order to gain independence from the wholesalers, the two plants founded a joint subsidiary in San Feliu on the Spanish Costa Brava, which at the time was the main port of exportation for the

cork obtained from the local oak forests. Adolf Greiner managed the business and thus ensured that a sufficient share of production was dispatched to both Nürtingen und Kremsmünster .

Years later, Greiner came into the possession of a second branch in San Feliu, as in spite of the difficult wartime economic situation, in 1916 the respected Viennese cork manufacturer, R. Pecher, was taken over and like Greiner, this company also had a foothold on Spanish soil with an office in San Feliu. Reinhold Greiner became the new head of Pecher.

In 1921, Greiner first left European shores with Adolf Greiner's foundation of the C.A. Greiner é hijos in Santiago de Chile. In addition, during 1922 Greiner expanded on the Iberian Peninsula with a branch in Faro, Portugal and, as early as 1924, the leased factory already employed more than thirty workers. In the 1930s, Greiner also maintained an office in Paris, so to speak half way between Faro and Nürtingen, and a business card that has survived from the period names an address in the city's 13<sup>th</sup> district.

1950 to 1970

# The economic miracle: A dream with foam



A foam warehouse in Nürtingen  
(Germany).

Happily, bottle stoppers were not the only useful cork product and for many years inner soles and supports made from pressed material also belonged to the Greiner portfolio. Moreover, while attempting to use foam for these products, in the early 1950s Greiner opened up a new business area. With the purchase of a foam machine and the receipt of a license from Bayer AG, from 1953 onwards Greiner emerged as a successful foam manufacturer. The first Moltopren foam came onto the market with the designation "F" for fine and "30" for a grammage of 30 kg/m<sup>3</sup>. Among the customers for this product were the upholstered furniture, mattress, textile and automotive industries.

There were also new developments in the bottle stopper segment such as the arrival of the first screw caps made from pure plastic and in 1953, Greiner also switched to the new injection molding process. The Nürtingen plant bought a new Battenfeld injection molding machine, which not only manufactured caps using thermoplastic, but also tablet boxes and cans for the pharmaceutical industry. Moreover, the related recycling of the sprue waste into packaging material can be seen as a pioneering act in the recycling field.

Spurred on by the successes in Nürtingen, in 1954 the works in Kremsmünster also turned to foam production and started to manufacture polyester foam, which among other applications was used in brassieres, petticoats, casings and insulation.

In 1959, this move was cemented by a major investment at the Austrian plant in polyether foam, which was made up into ready to install cushion sections for furniture. The works quickly became the leader in the Austrian foam market and in addition also maintained excellent business ties with the state-run economies in Czechoslovakia, Hungary, Poland, Romania, Bulgaria and Yugoslavia.

In 1960, Kremsmünster added injection molding to its foam production and initially, as in Nürtingen handle caps were manufactured. However, in 1962 production was switched to the manufacture of polystyrene containers such as cups, cans and boxes for the foods industry complete with polyethylene lids. Thin-walled cups from in-house deep drawing production followed and with these Greiner revolutionized the Austrian packaging market for dairy products. Above all, Greiner wrote history with its plastic cups for yoghurt.

When in the 1960s the pharmaceuticals industry switched from boxes and tins for tablets to so-called blister packaging, some injection molding producers got into sales difficulties, but this was not the case at Greiner in Nürtingen. There, one had long begun to specialize in the special needs of laboratory technology and amongst the best-selling products were disposable Petri dishes and microtiter plates with 96 wells for laboratory analyses. Greiner established an excellent reputation and this resulted in a rapid increase in the demand for laboratory items from Nürtingen.



A trade fair booth with Greiner products.

# 1970 to 1990 Greiner: A major investor on own account

By the beginning of the 1970s, plastic cups had become the standard packaging for yoghurt in Austria. Injection molding production in Kremsmünster was thus working at full capacity and there was no room for additional machines. Therefore, Greiner created the required space by building two new injection molding halls in which in 1973 and 1975 respectively, roughly a hundred injection molding machines went into in high-speed operation.

Moreover, as if this major investment were not enough, Greiner also updated and expanded its foam production in Kremsmünster. The old foam machine gave way for the most modern system in Europe, which performed entirely convincingly

during test runs in the summer of 1973. Along the installation of the new plant in the newly built Foam Hall 4 took a year, but with the blessing given by suffragan bishop Wagner during the festive start-up in the autumn of 1973, all good things truly came to those who had waited. In addition, the continuing plastics and foam boom presented Greiner with the opportunity to invest further in its machine park.

Developments at the parent plant in Nürtingen, which was bursting at the seams, were similar. In the summer of 1973 it moved its foam make-up activities to nearby Ebersbach and in 1980 these were followed by foam production, which also received a brand new plant. Laboratory

In the 1970s, the plastic cup became standard packaging.



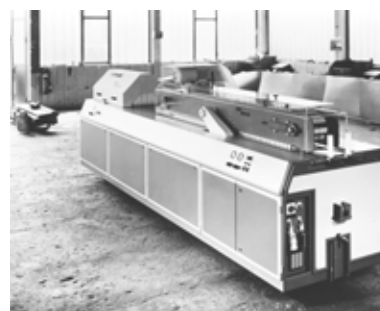
Technology gratefully took over the free halls in Nürtingen and purchased its first large machine system from Husky in order to keep pace with the demand for Petri dishes. After a planning and construction phase lasting several years, finally in 1987, Laboratory Technology also left Nürtingen and occupied a new plant in Frickenhausen, where in 1988, Greiner opened one of the most modern injection molding production facilities in Europe.

In the 1980s, Greiner Laboratory Technology achieved its next major success with the launch of the VACUETTE® blood collection system, which had been developed in Kremsmünster. The VACUETTE® consists of an unbreakable plastic tube with a safety cap and is not only simple and safe to use, but also minimizes the danger of infection to medical staff. Moreover, as the immunodeficiency syndrome AIDS had started to spread, a safe collection system for hospitals, practices and laboratories arrived at just the right time. At the beginning of the 1990s, Greiner occupied a new Laboratory Technology plant with an annual production capacity of 120 million blood collection tubes, as well as a billion pipette tips and analyzers.

In the preceding years, Greiner had added an additional source of income in the plastics extrusion segment through a double company takeover in Austria. In 1980, the window frame and tooling manufacturer Austro-Plast in Wartberg an der Krems became part of Greiner and was followed in 1985 by the tooling and machine producer Uniplast in Nußbach.



In the 1980s, Greiner Laboratory Technology achieved major success with the VACUETTE® blood collection system.



Upgrading in the extrusion area.



In 1988, Greiner opened one of Europe's most modern injection molding facilities in Frickenhausen (Germany).



# 1990 to 2010 Heading for the East, West and everywhere



Thousands of tonnes of foam are processed in the new recycling plant in Linz (Austria).



The Greiner subsidiary in Mosonmagyaróvár (Hungary).





With the takeover of the Swiss packaging company, Sandherr Packungen AG, Greiner inducted a specialist for K3® products into the group.

With a new recycling plant in Linz, in 1990 Greiner kick started the recycling loop with thousands upon thousands of tonnes of recycling foam. This versatile material was converted into a wealth of products that includes new mats, insulation, flooring and shoe parts and in 1991 Greiner in Austria was able to proudly report that in the course of cup recycling, 45 tonnes of recyclate were collected monthly.

Following the collapse of the Iron Curtain, Greiner was one of the first Austrian companies to expand successfully in Eastern Europe. The group had enjoyed good trading relations in the region for over twenty years and with partners old and new, Greiner now entered into a long list of joint ventures and participations in the reform states in both the packaging and the foam areas.

During 1989, Greiner Műanyagtechnika in Hungary was integrated into the group as a new subsidiary and in 1997 was followed by Greiner Csomagolótechnika. Furthermore, in 1991 an investment was taken in the foam manufacturer Poran.

In the Czech Republic, a plastics plant was started up in 1992 under the name Greiner Plastove Obaly and was then supplemented by the BPP foam make-up company in Brno.

In 1992, Greiner came to an agreement with colleagues from the Recticel Group that joint expansion in Eastern Europe in the foam sector should be continued via a foam-chemicals holding administered in partnership. In 1993, this resulted in the illustrious name Eurofoam and the continuation of Greiner success with numerous acquisitions, participations and new foundations.

During 1999, Greiner opened a production plant for food packaging in Sibiu in Romania, in the direct vicinity of the already operative Eurofoam foam plant. This process was repeated in the same year in Tabasalu, a suburb of the Estonian capital Tallinn. Furthermore, in 1998 the Polish packaging manufacturer, which since 2000 has operated under the name Greiner Opakowania, moved from Raszyn to Teresin. Greiner Extrusionstechnik was also on an expansion course having settled in the Czech Republic and Poland in 1993 before moving far further east in 2002 with a branch in Shanghai.

Out of respect for the increasing number of its international trading partners, in 2000 Greiner said farewell to the "Laboratory Technology" designation and since then the company has operated as Greiner Bio-One. As a clarion call, the new company started by building a new production

facility in the USA and Monroe in the east coast state of North Carolina was the recipient of this twelve million dollar investment. The plant initially manufactured the VACUETTE® blood collection system prior to subsequently adding the production of micro-plates and master blocks for the US market.

In 2003, Greiner Bio-One launched a sales office in the Brazilian federal state of São Paulo and after only two years, this was upgraded to a production location with two VACUETTE® and one gel plants. Moreover, in 2008, Greiner Bio-One opened a further plant in Amata Nakorn, Thailand.





Greiner Packaging in Pittston (USA).



Unifoam in South Africa is the first Greiner company on African soil.



Greiner Packaging in Pittston (USA) manufactures top-quality K3® cups for the American market.

# Since 2010 Plastics for Life

At the end of the 2000s, a change of historical dimensions took place at the top of the company, as with Axel Kühner (2009) and Hannes Moser (2011) for the first time responsibility for Greiner passed into the hands of external directors and the family withdrew from the group's operative management. However, in order to protect their interests as owners, the fifth and, in the meantime, the sixth generation of direct descendants of the founder Carl Albert Greiner formed the Board of Family Shareholders.

In 2011, this followed with excitement the opening of yet another new chapter by Greiner, which extended its feelers to South Africa. In 2012, the group agreed to the formation of a joint venture with a foam manufacturer on a 50:50 basis. Thus Unifoam Limited entered the Greiner annals as its first company on African soil. Unifoam also made history in 2014 when, while still fully operative, it installed Africa's most modern foam plant within three months.

At the same time, Greiner gradually became at home in China. In 2013, a coordination and service

unit was established for all the companies in the group wishing to undertake an involvement in China. As a result, none of them need start from scratch and through the Corporate Center the door to the Chinese market is wide open.

Greiner Bio-One is already represented in this market, as in October 2011 the management signed a contract with its long-term trading partner Beijing Suns-Real for a joint venture under the company name Greiner Bio-One Suns. In addition, during 2012 Greiner Bio-One proceeded to use the same proven strategy in India by forming joint enterprises with trusted trading partners. The cooperation with Tristar Remedies thus led to the foundation of Greiner Bio-One India.

Greiner's Packaging Division is also far from satisfied with what it has achieved thus far and at the instigation of Greiner Packaging Northern Ireland, it is building a plant in Pittston, Pennsylvania, that will put top quality K3<sup>®</sup> cups into the hands of the motherland of fast food. This is because in

the USA there is also a growing awareness of the essential value of first class foods in correspondingly safe packaging.

As a global player, the Greiner Group is well aware of its responsibility to ensure the sustainable handling of the Earth's resources. Therefore, "Plastics for Life" is both a motto and a self-imposed obligation to employ plastic where it creates value added with maximum quality in combination with the minimum use of materials, systematic recycling and products that benefit life in general.





# Plastics & Sustainability



# Plastics for Life: Our response to the challenges of the future





*Population growth, increasing consumerism and the unbridled use of resources is pushing the Earth to its limits. The Greiner Group has long actively lived up to its responsibilities as a plastics processor and is making every effort to leave posterity with an intact ecological, social and economic structure. Through the inter-group implementation of the Plastics for Life sustainability strategy in 2016, responsible conduct was firmly anchored within corporate strategy and a voluntary contribution to sustainable development made that far exceeds statutory requirements.*

The related aspiration is ambitious, as the Greiner Group not only wishes to contribute to sustainable development, but also serve as a pioneer and example in its industrial field, and moreover assist the achievement of the sustainable development goals (SDGs) established by the United Nations in 2015. The task facing a plastics processor and foam producer in this respect could not be more demanding, as it requires the creation of new solutions to the ecological and social problems emanating from the use of plastics. A key role in this connection is played by the establishment of a closed-loop economy in which, following the end of their life cycle, the raw materials employed are returned to the production process in their entirety.



At Greiner, corporate accountability is a matter for executive management and therefore the Greiner Group Management Board bears overall responsibility for the full range of sustainability issues. With four heterogeneous operating divisions, the group is at home worldwide in a diversity of industrial segments. Accordingly, the social and ecological topics for which answerability must be assumed vary greatly. Therefore, in order to take this into account, at the beginning of 2017 the group's sustainability management structures were markedly reinforced and enlarged. Furthermore, in order to genuinely get to grips with the sustainability question, an internal organization was created that consists of a Sustainability Committee comprised of the Greiner Group CEO and specialists from the divisions and holding, five thematic working groups and a sustainability and corporate responsibility officer.



Plastics & Sustainability

# Environment & Resources

*Environmental and climate protection numbers among the most pressing tasks of the current era. The Greiner Group takes this issue very seriously and in the environment and resources field is concerned with the question of how environmental impact can be reduced. In order to find the correct answers in this regard, an intensive focus has been placed on the thematic areas of energy-efficient working, resource conservation and the evaluation of applications for alternative materials.*



At a total of 139 locations worldwide, the Greiner Group is working on the continual reduction of its ecological footprint without impinging upon high product quality and rigorous safety standards. The long-term objective is an overall reduction in resource use and the waste created during production. An important step was taken in this connection during 2017 in the course of the continuous improvement of processes and structures. This involved considerable savings by means of recycling and the reuse of plastic within the group. Moreover, the Greiner Group has chosen not to rest on its laurels, but instead has undertaken to install an environment and energy management system at all its production locations during the coming years. As part of this procedure, among other measures energy and material consumption, emissions, space use, waste and used water will be systematically logged and complete production sequences scrutinized with respect to their environmental compatibility.

In 2017, the reporting of climate-relevant data was also decisively further developed and an initial environmental balance was drawn up within the scope of the Carbon Disclosure Project (CDP). The CDP gathers data and information submitted voluntarily by companies regarding CO<sub>2</sub> emissions, climate risks and reduction targets and strategies, and now administers the world's largest database of its type. As a result of this first time participation, the Greiner Group obtained an above-average assessment, which documents the fact that through its efforts the group is on the right track.







## Plastics & Sustainability

# Products

*Resource conservation, emission reduction, the recyclability of products and the employment of alternative materials are areas of action within the framework of the further development of the Greiner product portfolio. In this connection, during 2017 a series of concrete steps were initiated with the objective of moving the business model even closer in the direction of the closed-loop economy concept and developing products in such a manner, that following their lifecycle the raw materials used can be returned to the production process in their virtual entirety.*

Sustainability means the adoption of fresh approaches. Accordingly, as early as in the 1980s, the Greiner Group became intensively involved with the further development of recycling technologies for plastics and foam, as well as new applications for plastic recycle. In addition, in the course of company history, this orientation towards sustainability has on several occasions resulted in changes to both products and material utilization. To name just one example, two years prior to the imposition in 2011 of the European ban on the use of polycarbonate in babies' bottles, Greiner ceased to employ plasticizers in its production. In spite of initial business losses, this decision was adopted and implemented out of a sense of responsibility to both humans and the environment. Today, the group considers

recycling capacity, the use of alternative materials and the overall eco-balance at an even earlier stage of the development process and thus ensures that all the products manufactured can be reused or easily disposed of.

The systematic analysis and shrinkage of the ecological footprint, and hence the volume of CO<sub>2</sub> emissions caused by a product during its lifespan, constitutes another cornerstone of the group's sustainability activities. There is a focus on the entire value added chain from raw material extraction, production and transport to disposal or reutilization.



## Plastics & Sustainability

# Supply Chain

*The Greiner Group sees sustainability as a driving force for both innovation and growth, but one that can only be exploited through partnership and not by unilateralism. Therefore, it has expanded its responsible corporate management to the entire value added chain with the aim of creating ecological, social and economic benefits for all the players involved in production and marketing.*





As a globally active enterprise, the Greiner Group bears a major responsibility for its personnel, the environment, society and its stockholders. A major factor in this regard is the critical assessment and further development of its own products. Moreover, responsible product sourcing can also exert an influence upon global challenges and therefore the group has undertaken to carry out all its business activities along the supply chain in a sustainable, morally, legally and ethically irreproachable manner and on this basis increase its earnings in fair competition.

In line with a holistic approach, sustainability criteria such as environmental and work protection, as well as adherence to human rights are incorporated into the selection and development of all suppliers. The framework for this cooperation is tabulated in the "Greiner Code of Conduct for Suppliers and Business Partners". This is valid for all companies involved in transactions with the Greiner Group and establishes non-negotiable, minimum standards and the basic principles governing a business relationship. In this way, responsibility is perceived across the group and it is ensured that dealings with all suppliers and business partners are ethically correct, ecologically sustainable and socially acceptable.





# Plastics & Sustainability

# Employees

*The Greiner Group offers secure employment to over 10,000 people in 33 countries. There is a constant focus on the individual and therefore around the world, the concern can justifiably claim to be a good and responsible employer. Employee job satisfaction is also a central aspect of sustainability strategy and therefore Plastics for Life places an emphasis on the securing of optimum working conditions, diversity, health and work safety, basic and further training and the compatibility of work and family life.*

During daily teamwork, there is a reliance upon trust, answerability and mutual respect, which creates the framework needed to encourage the realization of individual potential. For many years, the group has invested in the further training of both staff and managers in line with its conviction that successful work is only possible in a value-based environment. The diverse training and coaching programs provided by the Greiner Academy are directed towards the early recognition of talents and the support of both personal and professional development. Accordingly, in order to further consolidate its personnel advancement efforts in 2017 the Greiner Group launched the Greiner Expert & Management Succession programs, GEMs for short, which is designed to ensure that top quality candidates fill specialist and man-

agerial positions on a lasting basis. Within the scope of GEMs, careers and development are both promoted within the group, while at the same time staffing risks are recognized and thus successor vacancies and know-how losses are avoided.

Apart from fair and performance-oriented remuneration, as a family-owned enterprise Greiner regards the compatibility of professional and family life as being of primary importance. Flexible working time models, childcare at group headquarters and voluntary social benefits are just some examples of the measures that make the Greiner Group an attractive employer.



## Plastics & Sustainability

# Communica- tions & Social Commitment

*Social commitment has for many years been a permanent feature of Greiner's corporate culture. Irrespective of whether at its headquarters in Austria or one of the 139 locations worldwide, wherever the Greiner Group is represented it blends into society as a "good neighbor" and acts as a responsible partner. Social and communal obligations are fulfilled actively and with pleasure, and in this regard the group focuses on the targeted and beneficial funding of educational, cultural and sporting activities in its home districts.*





Sustainable business operations mean the maintenance of an open dialogue with all stakeholder groups, in order that their expectations and entitlements flow into the working day. Consequently, group-wide commitment forms bonds on a diversity of levels and in addition to regional efforts, the Greiner Group is also part of national and international initiatives aimed at solving global problems. An important partner in this connection is the Ellen MacArthur Foundation, which was founded in 2010 and with its new plastics economy concept has nailed the concept of the closed-loop economy and thus the reuse and recycling of raw materials to its mast. Together with other companies, think tanks,

NGOs and governmental organizations, Greiner is working on the fitness for the future of plastics within the new plastics economy.

While in the partnership with the Ellen MacArthur Foundation the global challenges of the closed-loop economy are being tackled, as a member of the International Solid Waste Association, Greiner is also actively involved in the issue of waste management systems, which it is seeking to highlight. These measures are flanked by national initiatives such as Zero Pellet Loss, which is aimed at the prevention of plastic granulate entering waters during company operations, and a stakeholder commitment to the Upper Austrian Plastics Cluster. Greiner also actively supports Austria's "klimaaktiv pakt2020", an initiative for a climate-friendly economy and thus makes a further contribution to ensuring the sustainability of its entire industrial segment.



An aerial photograph of a city skyline at sunset. The sky is filled with soft, pink and orange clouds, with the sun low on the horizon. The city below is densely packed with skyscrapers and buildings. A large body of water, likely a river or bay, winds through the city. The Shanghai Tower and the Oriental Pearl Tower are prominent. A blue geometric shape, a triangle, is overlaid on the left side of the image, pointing towards the center.

Further, higher,  
stronger



# The global economic upturn has stabilized

*In 2017, the global economy maintained its upward curve on an ever-broader basis and with growth of 2.8 percent, world economic performance was most satisfactory. Investment in virtually the entire Western world revived and the end of the crisis also boosted exports in the threshold nations. Above all, the good news emanated from the euro zone (2.4%), Japan (1.8%) and China (6.9%), while with growth of 2.2 percent, the USA lagged slightly behind expectations.*

In spite of more difficult general conditions, the euro zone developed in a positive manner during 2017. Growth of 2.4 percent was spread widely across both sectors and countries and the economy defied political challenges such as Brexit, the Catalanian crisis and the forthcoming elections in Italy. The root causes of this development lay in the expansive monetary policy of the European Central Bank, private consumer spending and the increasing propensity of European industry to invest. Although the currency was strong, the euro zone demonstrated export growth, especially in the direction of China and the rest of the Asian region.

The German economy profited from lively domestic demand, dynamic global trade and healthy investment. In the former crisis countries, Spain, Portugal, Ireland and Cyprus, 2017 saw a robust upswing and with growth rates in excess of virtually all

the states in the euro zone, they clearly left the slump behind them. The growth driver in 2017 was Spain, where in spite of the smoldering crisis in Catalonia, the strict austerity program and systematic labor market reforms resulted in the recovery of the erstwhile economic problem child. Moreover, Greece also witnessed an upturn in 2017.

In the UK, the vote to leave the European Union left traces. With growth of 1.6 percent, the British economy was stable, but was nonetheless well behind the euro zone (2.4%). The modest pace of the negotiations and questions regarding the actual form of departure caused uncertainties and a reduced willingness to invest. In addition, owing to Brexit and the related weakness of the pound, inflation returned to a far greater extent than in the euro zone and the USA, and in 2017 averaged 2.7 percent.

### *Central and Eastern Europe*

Despite unstable political conditions, the Central and Eastern European economy gathered momentum. In almost all of the countries of the region, private consumer spending driven by a significant improvement in employment rates and accompanying above-average wage and salary rises, was the key element in this growth scenario. Following two years of recession, the Russian economy grew by around 1.7 percent and similar expansion would appear likely in 2018. The roughly 15 percent increase in oil prices as compared to 2016 and a slow rise in loans due to falling interest rates had a supportive effect in this regard. In Poland, the economy performed better than expected owing to higher exports and private consumer spending. In 2017, Polish GDP was up by over four percent.

### *Tax packages ignite the US economy*

In the wake of Donald Trump's electoral victory, the US economy experienced a marked upturn. After growth of 1.6 percent in 2016, 2.2 percent followed in 2017 and a further acceleration is anticipated for 2018. This development can be traced to the strength of the global economy and the stimulus provided by the fiscal package agreed at the end of 2017.

### *Threshold country development*

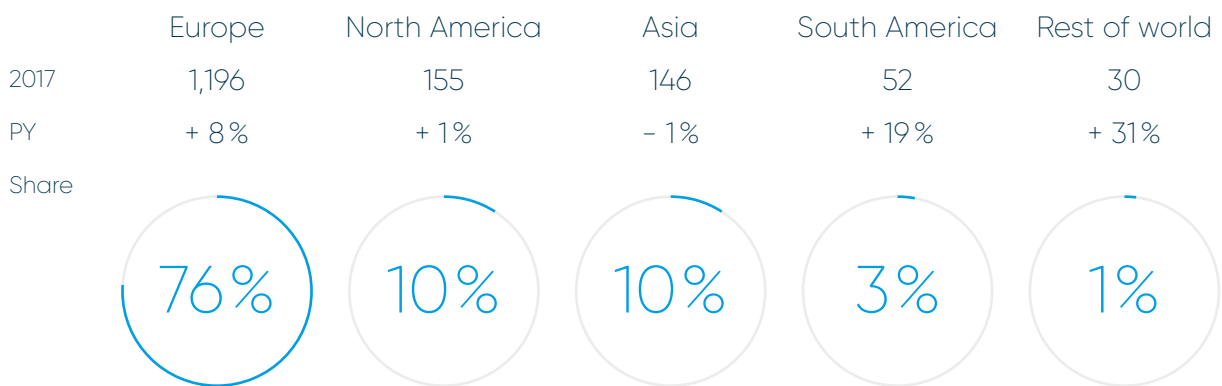
Although subject to political unrest and the foiled military coup in 2016, in 2017 the Turkish economy showed strong growth of over five per cent. First and foremost, this was the result of Ankara's launch of an expensive economic program.

The Chinese economy continued to grow rapidly with an increase in GDP of 6.9 percent based on solid private consumer spending and dynamic investment. India lost impetus in 2017 with a growth rate of 6.4 percent.



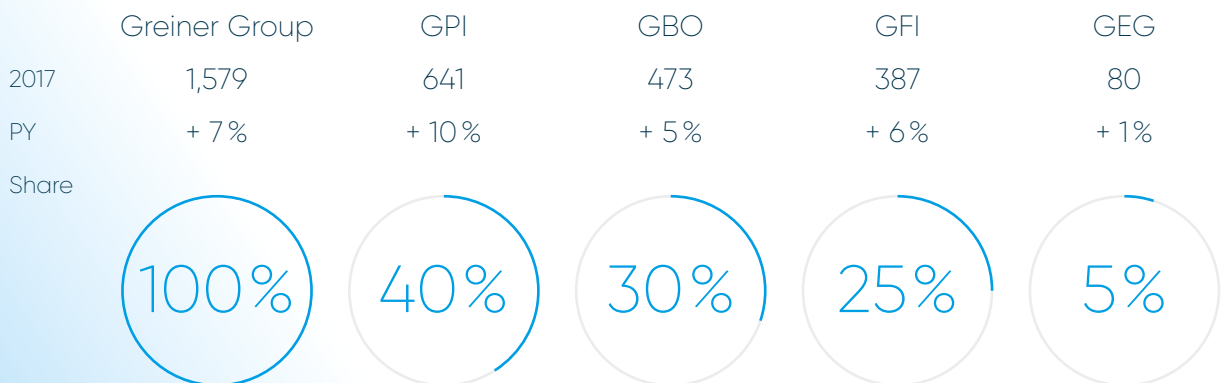
## Sales revenues by region

ACTUAL 2017 (change over the previous year and share of 2017 sales revenue in %) in million euros, joint ventures prorated.



## Sales revenues by division

ACTUAL 2017 (change over the previous year and share of 2017 sales revenue in %) in million euros, joint ventures prorated.



# Greiner Group growth continues

*In 2017, the Greiner Group performed well in a demanding environment. The EUR 1.5 billion sales revenue milestone was passed for the first time and over 10,000 personnel were employed worldwide. The diversification strategy again proved its worth and reduced the dependence upon individual markets and branches. Furthermore, the path to additional growth was paved with the opening up of new sales opportunities and the focus on innovation and sustainability.*

## *Consistent development in all areas*

Despite difficult general conditions, in 2017 the Greiner Group's four operative divisions (Greiner Packaging International, Greiner Bio-One International, Greiner Foam International and Greiner Extrusion Group) held their ground and the net result for the year was stable at a solid level. In 2017, group sales revenues rose by seven percent as compared to the previous year to stand at EUR 1.579 billion (2016: EUR 1.475 billion). Cash flow remained unchanged over the preceding year at EUR 148 million and was again employed to finance all of the investments in the 2017 financial year.

In 2017, the Greiner Group invested EUR 119 million in tangible assets (2016: EUR 101 million) and employed a workforce of 10,567 (2016: 9,722) at 139 locations in 33 countries around the world. As at the closing date of 31 December 2017, the Greiner Group had 2,587 employees in Austria, 6,274

in the remainder of Europe, 774 in Asia, 666 in the NAFTA region, 197 in South America and 70 in the rest of the world.

## *Rising commodity prices and unfavorable exchange rates*

2017 was characterized by partially dramatic increases in raw material prices, particularly in the foam area, disadvantageous currency exchange rates and shifts in customs and fiscal barriers in some of our markets. As a plastics processor and foam producer, the Greiner Group is highly dependent upon the oil price trend and was especially challenged by the further deterioration in the cost situation with regard to crude-based raw materials such as toluene diisocyanate (TDI).

With its 139 locations, the Greiner Group largely produces locally for the respective domestic markets,

which means that natural currency hedging results. Nevertheless, raw materials are partly purchased in foreign currencies and depending upon the related trend, have a direct impact upon the result. Accordingly, the devaluation of the Turkish lira and the Brazilian real against the euro in 2017 had a negative effect upon the results of the production centers in both Turkey and Brazil.

#### *Positive development in all divisions*

Owing to high raw material prices, exchange rate volatility and insecurity on the global political stage, 2017 was in many respects a challenging year. Nonetheless, in spite of this problematic environment all four divisional companies performed well and in line with the strategic priorities of the Greiner Group placed an emphasis on globalization, diversification and innovation.

The Greiner Group has a focus on people. Therefore, the basic and further training of employees, who represent the most valuable asset of successful companies, possesses special importance. This fact has also manifested itself in the enlargement of group headquarters in Kremsmünster/Austria to form the Greiner Campus, as apart from up-to-date office and open work spaces, this

will house a modern apprentice and employee training center, which will be completed in 2019.

#### *Globalization, diversification, innovation*

The Greiner Group continued to pursue its strategic goal of globalization with acquisitions in Russia, Turkey, Sweden, Spain, Portugal, Bosnia-Herzegovina and Germany. In the spring of 2017, Greiner Packaging took a majority holding in the Russian packaging specialist Plastic System, which is based in Noginsk near Moscow. In addition, the company stepped up its involvement in the Middle East and Africa through the purchase of the remaining shares in the Turkish joint venture, Teknik Plastik Greiner Ambalaj, which now operates under the name Greiner Packaging.

In 2017, Greiner Bio-One took over the listed Swedish company Vigmed Holding AB and thus enlarged its product portfolio with IV catheters. Moreover, the division also consolidated its international market position through the

acquisition of its long-term sales partners Vacuette España and Vacuette Portugal.

Greiner aerospace extended its competences to include the cabin components for aircraft through the purchase of CarTrim in Bosnia-Herzegovina and Germany, and on 1 October, Greiner Perfoam took over the business operations of the AME company in Plauen, Germany. This company specializes in the lamination of plastic backings with leather, synthetic leather, textiles and nonwovens.

Intensive preparation work culminated in the opening up of new sales markets and enabled the demonstration of innovative capabilities in the course of new and exciting customer orders. The group also made progress with regard to diversification through entry into the fields of IV safety catheters, the leather covering of parcel shelves, the processing of leather dress covers for aircraft seats and the purchase of know-how for the breeding of 3D cell cultures.

Advanced packaging solutions for the pharmaceutical and medical branch, the introduction of the world's first digital system solution for the optimization of the entire blood collection process, and multi-barrier packaging all serve to illustrate the group's innovative strength, which constitutes its third strategic keystone.

#### *A focus on sustainability*

With Plastics for Life, the Greiner Group has cemented sustainability into its group-wide corporate strategy and has also set itself the target of becoming a benchmark in its own industrial branch. The adaptation of the product portfolio, increased innovation in line with sustainability, as well as the advancement of the highest environmental standards in

production are just some of the areas in which the Greiner Group intends to continue to set an example in future.

#### *Outlook 2018*

The first quarter of 2018 progressed satisfactorily. Entry into new markets, the development of innovative products and processes, and the intensive implementation of the sustainability strategy at the operative companies will all continue to remain at the top of the agenda in 2018. As a family-owned enterprise, the Greiner Group constantly has a focus on its long-term strategy and business orientation, and is careful to preserve its autonomy and independence. On the basis of the strategic triangle formed by globalization, innovation and diversification, the group is already laying the foundation for a continuation of the Greiner success story in the next 150 years.





Greiner  
Packaging.  
Do the  
Innovation.

**greiner**  
packaging

*“Innovative ideas secure a sustainable future and especially in the plastic packaging area, we can make an environmental contribution.”*



Manfred Stanek  
CEO Greiner Packaging  
International GmbH



# Growth through acquisitions, innovation and customer orientation

*In 2017 Greiner Packaging further consolidated its global activities with two significant acquisitions in Turkey and Russia. Growth was also boosted with an eye to current trends and developments in both a social context and the packaging industry, as in future the issue of sustainability is set to play a special role.*

For almost sixty years, Greiner Packaging has numbered amongst Europe's leading manufacturers of plastic packaging in both the food and non-food sector. The division counters the challenges of the market through two business units, the first of which is Packaging, which has a product portfolio that includes cups made from plastic and cardboard-plastic-com-

binations, as well as packaging solutions such as plastic bottles, containers and buckets. The second business unit, Assistec, has established a global reputation as a solutions provider and technology integrator and is concerned with the production of customized plastic parts and products, as well as their assembly and individual finishing.

## New chances through social changes



## Positive business development in 2017

Greiner Packaging is a global player and in 2017, the company had a workforce of 4,828 at 34 locations in nineteen countries. If joint ventures are included, Greiner Packaging attained annual sales revenues of EUR 641 million, which represented an increase of ten per cent over the preceding year (2016: EUR 581 million). By and large, the individual locations developed in a positive manner with partially marked sales growth as compared to 2016. This development was based on fruitful projects with new clients and a successful expansion strategy, which the company continued to vigorously pursue during 2017. A new joint venture was founded in Russia and an existing undertaking in Turkey was fully taken over. Furthermore, the positive operating result was achieved in spite of detrimental external factors such as the rising price of polyolefins in general and polystyrene in particular, which impacted company business worldwide. Conversely, owing to the stronger euro and corresponding imports, although price levels were high, the security of supply was ensured.

## Global trends point to the way ahead

The packaging industry is currently faced by a diversity of changes. The tendency towards lighter packaging is exerting pressure on materials such as metals and glass, while simultaneously creating fresh opportu-

The first Kavoblow MBT bottle: the new ketchup packaging employs innovative stretch blow molding in combination with barriers.





Recycling made easy! Card-board-plastic-combinations are conquering the USA, especially as the cardboard bottom of the K3<sup>®</sup>-H can also be printed.

nities for plastics producers such as Greiner Packaging. However, the latter are confronted by the challenges posed by a raising of recycling quotas, a reduction of the plastic content in packaging in order to make it lighter, and an increasing reliance on non-crude oil based, organic resources. The issue of food waste also plays an important role in research into new packaging possibilities, as growing consumer awareness with regard to sustainability should also be taken into account. At the same time, the demand for packaging is rising, as an ever-larger number of people worldwide migrate to the megacities and the trend towards single-person households strengthens, thus boosting the demand for smaller packaging sizes. In addition, an urban lifestyle also furthers the desire for convenience products, which on the one hand can be quickly and simply prepared and then eaten while on the move, but on the other must have a longer shelf life. Greiner Packaging's response to these trends was exhibited at the interpack trade fair held in Düsseldorf in May 2017, where apart from innovative product solutions, it displayed its

standing as a globally active and future-oriented company to an international specialist audience.

### *New markets, new opportunities*

Europe continues to represent Greiner Packaging's domestic market, but in recent years the company has placed a strong emphasis on the expansion of its global presence. For example, since 2014 Greiner Packaging has been represented in the USA and during 2017, the company location in Pittston, Pennsylvania developed in an entirely satisfactory manner and was able to considerably enhance its market position. As compared to 2016, the young company was able to register growth well in excess of 50 per cent, which resulted mainly from teamwork with numerous major customers, which among others included one of the largest national players in the retail sector. Furthermore, business with the K3<sup>®</sup> cardboard-plastic-combination, which as opposed to Europe, constitutes a novelty in the USA, also demonstrated positive development.



### *Positive development in the USA*

## Successful joint ventures in Turkey and Russia

The Greiner Packaging location in Turkey should also become a success and in summer 2017, the company raised its holding in the Istanbul-based firm, Teknik Plastik Greiner Ambalaj, from its previous level of 51 per cent to 100 per cent. This complete takeover of a Turkish dairy product packaging operation represents a continuation of the involvement in specialized plastics in Turkey, the Middle East and North Africa.

The company also consolidated its position in the Russian market during 2017 with the acquisition in March of a second national location in the city of Noginsk near Moscow. The aim of the resultant joint venture, in which Greiner Packaging holds the majority interest, is to step up activities in Russia and expand the range on offer. Larger containers such as buckets were added to the product portfolio through the acquisition and furthermore, competences in the IML and direct printing area were also supplemented.

### *Challenges and upheavals*

However, worldwide involvement also brings challenges, a fact that in particular Greiner Packaging is experiencing at its locations in Turkey and Northern Ireland. The continual devaluation of the Turkish lira since 2017 has had a significant influence on the profitability of the company and as far as the location in Dungannon, Northern Ireland is concerned, Greiner Packaging is feeling both the positive and negative effects of political decisions. The Brexit vote has resulted

in a devaluation of the British pound, which has made imports more expensive and thus boosted the demand for British products and strengthened their market position. Conversely, the prices of raw materials from the euro zone have risen, thereby creating problems for the company.

### *International orders for Greiner Assistec*

As an expert in the realization of complex projects, during the past year Greiner Assistec took an important step towards becoming a global solutions provider and technology integrator. In the course of the 2017 financial year, above all the business unit was able to distinguish itself through major international contracts, such as those for the Makita company, which manufactures high-quality battery powered and e-tools for DIY enthusiasts and professionals, and the Celestica organization, which is a leading supplier of design, production and supply chain solutions. The latter also presented Greiner Assistec with its "Total Cost of Ownership (TCOO™) Supplier Award 2016" for the unit's solution for increased performance, improved quality and a reduction in the delivery period with regard to the manufacture of wireless smoke detectors.



In the course of the upgrading of the smoke alarm production process for Celestica Greiner Assistec was honored with the "Total Cost of Ownership Supplier Award".

*Greiner Assistec convinces major customers*

### *Into a successful future with sustainability and digitization*

Sustainability is the order of the day. Environmental protection measures, social production conditions and the responsible handling of resources are in demand amongst an increasing number of consumers. Those wishing to enjoy market success must pay close attention to this trend and in the packaging industry sustainable materials, products and production processes are also gaining in importance. Consequently, Greiner Packaging examines every phase of the production lifecycle, from material selection and the manufacturing processes to recycling, for optimization potential. This is equally the main priority in the digitization field and for example, for the first time large-scale production in the coffee capsule area has been perfected with the aid of digitization processes. Reject numbers were lowered, output increased and production costs cut. Moreover, quality checks were raised to a new level and the outlay for machine maintenance was reduced. Greiner Packaging has also augmented the future trends of sustainability and digitization with proven measures for success. The IBT and MBT barrier technologies have been developed further and in the meantime are offered in combination with the entire technology range. As a result, customer needs are covered in the best possible manner.

### *Outlook 2018*

Greiner Packaging looks to the coming year with optimism based on a recipe for success that includes early trend recognition, the taking into account of customers wishes and needs, and top quality solutions that are both practical and visually attractive. The forecasts with regard to economic growth are highly promising and the demand for stiff packaging is set to increase further owing to population growth and urbanization. The challenges that remain to be overcome include currency fluctuation like that in Turkey and the expected price rises for raw materials. However, with a focus on innovation and further development work, Greiner Packaging will continue to rely on a proven formula with which in future, new markets and categories will be opened up and customers provided with individual service.

*Sustainability secures the future*



Innovative design with a traditional copper look. The Ayran cups provide authentic drinking pleasure.



Greiner  
Bio-One.  
Your Power  
for Health.



**greiner bio-one**



*"We are investing in our locations and innovative product solutions in order to meet the needs of our customers."*

*Rainer Perneker*  
CEO Greiner Bio-One  
International GmbH



473

Revenue (EUR million)

2,247

Employees

26

Locations

# Increased growth through new locations and product solutions

*During the 2017 financial year, Greiner Bio-One International continued to consolidate its market position. The enlargement of its headquarters in Kremsmünster was completed, the product portfolio supplemented through acquisitions and the location network in Europe expanded.*

Greiner Bio-One International is one of the world's leading companies in the field of medical technology. The Preanalytics business unit, which is based in Kremsmünster (Austria), develops and produces innovative collection systems for human and veterinary samples of blood, urine and saliva, which thus make daily, routine tasks in hospitals, laboratories and medical practices simpler and safer. In addition, the unit also provides customized, digital systems solutions (Greiner

eHealth Technologies), which furnish greater efficiency and patient safety during the preanalytical process. The BioScience business unit, which has its headquarters in Frickenhausen, Germany, acts as a technology partner to universities, research institutes and the diagnostic, pharmaceutical and biotechnological industries. BioScience is a leading developer and producer of a broad range of special products e.g. for the cultivation and analysis of cell

cultures, as well as microplates for high-throughput screening, which is an automated method for the rapid completion of biochemical, genetic and pharmacological substance testing. The third business unit is Mediscan, a wholly-owned subsidiary of Greiner Bio-One International, which is also based in Kremsmünster (Austria) and is a supplier of expert services in the sterilization of medical products and food packaging, as well the functional improvement of plastics and semiconductors by means of ionizing radiation.

As an original equipment manufacturer (OEM), Greiner Bio-One is also a trusted partner for industrial customers from the pharmaceutical, biotechnology, diagnostics and medical technology industries, and undertakes the design of special developments and production processes for its clientele.

*High capacity utilization results in pleasing business development*

In 2017, Greiner Bio-One employed a global workforce of 2,247 people at 26 locations in 19 countries and was again able to further strengthen its market position. The company achieved sales revenues of EUR 473 million, which represent growth of around five percent over the preceding year (2016: EUR 452 million). Solid expansion was attained in the Asian growth markets, the USA and South America, and the constantly high use of capacity at all the production locations during 2017 represented a clear indication of solid customer confidence. However, the raw materials price

trend and foreign currency effects hindered an even better business development as compared to the preceding year.

*European sales network strengthened*

March 2017 saw the acquisition over the long-term, exclusive sales partners Vacuette España and Vacuette Portugal. This important step facilitated greater customer proximity and more precisely targeted marketing on the Iberian Peninsula. As a result, another important landmark was reached in the systematic implementation of the sales strategy. Through this important acquisition, from now on Greiner Bio-One will be represented in all of Europe's main markets with its own branches. In addition, in line with the growth strategy the distributor organization in the Eastern European markets was optimized and reinforced.

*New headquarters opened*

During the 2017 financial year, Greiner Bio-One invested EUR 55 million in the expansion of capacities at its international locations. October 2017 saw the opening of the extension to company headquarters in Kremsmünster and the accompanying celebration of the 25<sup>th</sup> anniversary of their foundation.

*Good business development with high capacity utilization levels*

*Distributor take-overs in Spain and Portugal*



The new Greiner Bio-One headquarters in Kremsmünster.



An artwork with 7760 VACUETTE® tubes in the reception area of the new Greiner Bio-One headquarters provides a reminder of the development of the VACUETTE® system in the 1980s.



Ten million euros were spent on this enlargement, which apart from offices also includes laboratory facilities. Departments that were previously widely separated and partially divided up amongst differing buildings have now been united organizationally, and the resultant shorter distances and open space design provide improved teamwork, communications and working procedures.

The addition of a second warehouse at the Hungarian location was completed in November 2017 and henceforth will cover the increasing requirements generated by recent production expansion. Furthermore, owing to the continued rise in demand for blood collection tubes, production capacity in Brazil was again increased.

*More branches  
and increased  
capacities*

Three-dimensional in vitro assays are seen as offering great promise in the high throughput screening field.

*Innovative products for greater safety and efficiency*

In July 2017, Greiner Bio-One purchased over ninety percent of the shares of the listed technology and trading company, Vigmed Holding AB, which is based in Helsingborg (Sweden). Vigmed designs and sells IV catheters with a safety mechanism and via its development team possesses extensive market, product and technological know-how. For Greiner Bio-One this acquisition represents an excellent supplement to its preanalytics portfolio of safety products and facilitates entry into an attractive growth market.

In the capillary blood collection area, Greiner Bio-One launched the new MiniCollect® Complete tube onto the market. In addition, the product line for the collection of small and very small quantities of blood was enlarged with a standard MiniCollect® tube that is already pre-assembled in a carrier tube (13 x 75 mm). Handling during the analysis procedure and automated processing is thus simpler, more efficient and hygienic, as both the blood sample and subsequent analyses can take place using the same sample container.

In an initial pilot project, using LabCollection and LabFlow software, as well as VACUETTE® barcode tubes, Greiner eHealth Technologies (GeT) successfully implemented its holistic, pro-

cess-optimized system solution at the Steyr Regional Hospital (Austria) in cooperation with the Oberösterreichische Gesundheits- und Spitals-AG (gespag) managerial organization. The topic of medical technology digitization at Greiner Bio-One thus found its way onto the international stage. During reference visits to the Steyr Regional Hospital, leading experts from a number of countries were able to convince themselves of the efficiency of the system solution at first hand.

New and innovative CX™ automats were developed in cooperation with the HAMILTON® company. They are intended to automate all the manual pipetting steps of the PapilloCheck® HPV test, in order to obtain qualitative detection of HPV (human papilloma viruses) in a faster and more efficient manner. The CX™ NIMBUS® and CX™ STARlet launched in 2017 offer diagnostic laboratories the chance to switch to an automated equipment platform and thus achieve more effective HPV screening at higher clearance rates. The CX™ NIMBUS® is a compact liquid handling automat and has been designed for laboratories with small to medium-sized sample analyses throughputs. The device offers speed, flexibility and user friendliness, as it is also compatible with equipment that is already in laboratory operation. Conversely, the CX™ STARlet enables complete integration and process automation.

*Intravenous catheters are a new addition to the portfolio*





The MiniCollect® Complete for automated processing.

## Magnetic 3D cell culture for cancer research

Three-dimensional in vitro assays are seen as offering great promises in the high throughput screening field, as they facilitate a more meaningful assessment of the effectiveness of cancer medication at an early development phase. CELLSTAR® cell culture flasks with cell-repellent surfaces are ideal for the cultivation of cells in 3D structures. In particular, excellent results have been obtained in combination with the technology from the cooperation partner Nano3D Biosciences from Houston in Texas (USA). This technology is based on the magnetization of cells with the aid of nanoparticles, which lodge on the cell membrane. As the cell-repellent surface prevents the anchorage of semi-adherent and adherent cell lines, this solution is highly suitable for suspension cultures and the cultivation of spheroids, stem cell aggregates and gel-based 3D cultures.

## Outlook 2018

The forecasts for 2018 point to continued growth. One focal point will be the expansion of market positions in Asia and North America. In addition, the foundation of new sales branches outside Europe is in the planning phase and services and product training play a central role in this regard. These will be offered proactively to customers in order to prevent preanalytical errors and enhance both sample material quality and hospital staff safety, especially in developing and emerging countries. Furthermore, the product portfolio will again be expanded with new safety and innovative product solutions.

Owing to the outstanding capacity utilization levels derived from major orders and the sharp rise in international demand, the production capacities for blood collection tubes will be increased significantly at a number of international locations and enlarged with additional plant of the latest generation. Phase 1 of the installation of a new high-bay warehouse at the Frickenhausen location (Germany) will be concluded in the first half of the year and subsequently work will commence on Phase 2 with the enlargement of office and production facility space.



The CX™ STARlet for the automated genotyping of HPV.



Greiner Foam  
International.  
Foam  
for Life.





*"We are increasing our market shares through expansion and a focus on innovative products."*

*Michael Schleiss*  
CEO Greiner Foam  
International GmbH

387

Revenue (EUR million)  
50% share in joint ventures

2,563

Employees  
50% share in joint ventures

63

Locations

# Growth in all business units in spite of problematic underlying conditions

*Greiner Foam International is one of the world's most successful manufacturers of special foams. Accordingly, in spite of a challenging environment, the company was able to increase its sales revenues in 2017 and a clear expansion strategy will also ensure positive business development in future.*

With the companies Greiner Perfoam, Greiner aerospace, Greiner MULTifoam, Greiner PURtec and the joint ventures Eurofoam and Unifoam, Greiner Foam International unites all the foam competences within the Greiner Group. As a strategic division with 63 locations in 18 countries and a workforce of over 2,500, Greiner Foam International is active in the polyurethane foam (PU foam), automotive, aviation and building technology business areas.

Eurofoam, with its tightly knit network of locations in Central and

Eastern Europe, and Unifoam, which is based in Durban, South Africa, are leading suppliers in the field of flexible polyurethane foam manufacturing and processing for upholstered furniture, mattresses, the automotive industry and building technology.

Greiner Perfoam is a leading international developer and producer of functional, interior trim parts, as well as specially designed acoustic components for the engine and passenger compartments in premium class cars.



Greiner aerospace, which has plants in Europe, the USA and China is a globally active specialist in the field of cushions and seat covers for passenger aircraft, while Greiner MULTI-foam produces recycled composite foam for the sports, shoe and construction industries. In addition, its subsidiary, GuKo-Tech, manufactures top quality rubber and cork products for the construction industry, cargo securing, room acoustics and insulation. Last, but not least, Greiner PURtec specializes in highly efficient insulation for hot water boilers.

*Increased sales revenues despite high raw material costs*

In the 2017 financial year, Greiner Foam International was able to raise its sales revenues by six percent to EUR 387 million (2016: EUR 364 million). This growth was achieved in spite of problematic conditions and was partly the result of good capacity utilization at all the business units and price increases for PU foam. However, as a foam manufacturer, Greiner Foam International is highly dependent upon crude oil based raw materials such as polyols and isocyanates, and particularly with regard to the latter, beginning in the second half of 2016 prices surged to a previously unknown extent and by the end of 2017 had reached an all-time high. As such price increases cannot be passed on to customers in full, these unprecedented raw material costs affected result development, but nonetheless, due to the prompt initiation of countermeasures, no alarming negative deviations occurred



Foam in all its diversity.

*Raw material prices at an all-time high*



## Positive business development with high capacity utilization

## Systematic expansion in the PU foam segment

within Greiner Foam International and some business units actually surpassed their budget targets.

### *Growth through globalization*

Greiner Foam International is pursuing a systematic expansion strategy, which is focused on the PU foam segment. Therefore, among others, discussions were held with potential cooperation partners in Mexico, Malaysia, the UAE, India, Iran, Brazil, Egypt and Turkey. However, owing to a variety of reasons that frequently included an insecure business environment derived from regional political instability, to date these talks have not resulted in a concrete takeover. In 2018, merger and acquisition activities will concentrate on Mexico, Dubai, Malaysia, India and Brazil and in the defined growth segments automotive and aviation Greiner Foam International plans additional takeovers in order to open up new markets and further enlarge the product portfolio.

### *A focus on employees and digitization*

In view of the increasing shortages of personnel and qualified specialists, Greiner Foam International has initiated numerous measures for staff recruitment and retention. On the one hand, these are targeted on attractive, supra-regional offers for future employees and on the other, the loyalty of the current workforce. Despite these endeavors, obtaining suitable people in sufficient numbers remains a problem, especially in Central and Eastern Europe and therefore, among other results, higher personnel expenses can be expected.

Digitization is becoming an increasingly relevant factor in B2B market competition, as existing business models have to be modified. Greiner Foam International is equipped for this development and as part of the "Digital Agenda", in 2017 launched a comprehensive analysis of the status quo. As a result, in 2018 a digital road

map will determine a clear route for every business area with a focus on the innovative upgrading of external market performance on the one hand and internal process and productivity optimization on the other. The objective is to achieve a sustained improvement in both customer benefits and profitability.

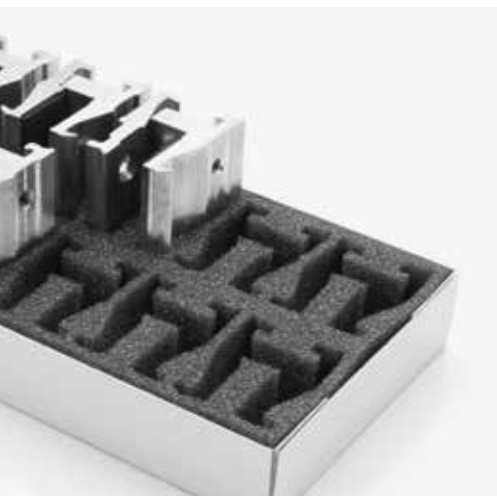
### *Eurofoam faces a challenging year*

Although market conditions were extremely difficult in 2017, Eurofoam succeeded in maintaining its market share. The dramatic rise in raw material costs and the dichlorobenzene crisis triggered by a supplier in the second half of the year had a negative impact and temporarily induced a state of shock throughout the entire foam industry.

Nonetheless, in 2017 Eurofoam continued to expand with the start-up of a loop splitter in Sibiu (Romania) and the further enlargement of roll business in southeastern Europe. Moreover, fully automatic mattress production commenced in Zgierz (Poland) with an annual capacity of 500,000 pieces.

### *Unifoam masters demanding conditions*

Owing to political unrest and the resultant economic challenges, 2017 was a very exacting year in South Africa. However, in spite of business confidence being at a premium throughout the country and the dramatic raw material price trend, both market share and margins were maintained at a solid level. Moreover, with the start-up of the "Mattress in the Box" line and new foam solutions, Unifoam celebrated a number of highlights during the year.



Eurofoam pactec transport packaging.

*Greiner Perfoam remains geared for growth*

Greiner Perfoam remains committed to expansion and thanks to order acquisitions anticipates good use of capacity in the coming years. Indeed, in order to meet customer requests for global supply, apart from the five European locations, the joint ventures in China (Tianjin und Shenyang) and Mexico (Celaya) founded in 2016 are to be expanded into production facilities. Furthermore, the AME company in Germany, which specializes in covering interior trim parts for cars with leather, synthetic leather, textiles, and fleece, was taken over in October 2017, thus supplementing the product portfolio and increasing in-house value added.

*Greiner aerospace continues on an expansion course*

In the first quarter of 2017, Greiner aerospace purchased the German company, CarTrim Aircraft, which is a specialist in the field of fabric and leather aircraft seat covers. The integration of a production facility in Bosnia-Herzegovina and a development center in Plauen in Germany has resulted in a further cementing of market position. Moreover, additional know-how and manufacturing capacity have been obtained. During the summer, company headquarters were transferred from Schwandenstadt to Pettenbach (Austria).

*MULTIfoam can reflect upon a successful financial year*

In 2017, MULTIfoam was able to further consolidate its share of the European market for ecologically sustainable products in the artificial turf and tennis segments. A new production and storage hall was put into operation in Ozorków (Poland) and the GuKoTech subsidiary in Nürtingen (Germany) both enlarged and modernized its plant capacity. In addition, during the past year MULTIfoam developed a new composite material, which is employed in vibration attenuating, elastic components for shockproofing.

*PURtec opens up new markets*

As part of the EU's stricter energy policy, 2017 saw the introduction of minimum standards for the energy efficiency of heating and hot water boilers. This has led to increased demand for top quality insulation solutions with the result that PURtec has opened up new markets in Scandinavia and southern Europe. Moreover, during the year the acoustic solutions for the office and home areas, which can be individually printed, also demonstrated positive development.



Greiner Perfoam transmission bell encapsulation.



*Regional market growth*

## *Outlook 2018*

Even though raw material cost have reached a record level, at present there is still no sign of the pressure easing, as prices are continuing to rise. Nevertheless, the positive economic situation permits the expectation of a positive sales revenue and volume trend in all of Greiner Foam International's business units. The focus with regard to the Eurofoam participation is on the implementation of the shareholder strategy in order to be ideally equipped for future market conditions and further growth. 2018 will also see the retention of the systematic expansion strategy with the acquisition of a majority holding in Unifoam and efforts aimed at regional market expansion in southern Africa. At Perfoam the emphasis will be on the start-up of series manufacturing in Europa, China and Mexico, while Aerospace will put the innovative "structured cushion" for aircraft seats into serial production. Moreover, 2018 will also witness a marked increase in output capacity at MULTIfoam's Polish factory through the installation of a new composite foam plant.



International aircraft seat manufacturers and airlines appreciate the comfort and quality finishing delivered by Greiner aerospace.





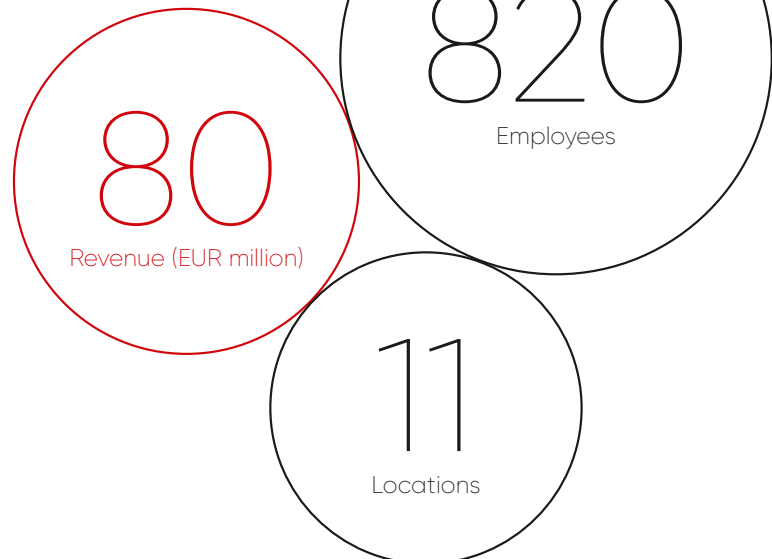
Greiner  
Extrusion Group.  
Keeping you  
ahead  
in Extrusion.





*"We have invested extensively and have thus expanded the production range for the entire extrusion branch."*

Gerhard Ohler  
CEO Greiner  
Extrusion Group GmbH



# A global player in the extrusion plant engineer- ing field

*Since its foundation forty years ago, the Greiner Extrusion Group has evolved into the world's leading supplier of extrusion lines, tooling and complete systems for profile extrusion. In 2017, these key competences were enhanced and the services range extended.*

*EUR 80 million  
mark reached*

*Sales revenue growth and increased market share*

The Greiner Extrusion Group offers its customers tailor-made products and individual solutions for profile extrusion, which extend from engineering, tooling and machine manufacture, to the supply of turnkey lines. These services are provided by eleven locations in six countries and in the 2017 financial year, Greiner Extrusion Group with its workforce of 820 increased its sales revenues by one per cent to EUR 80 million (2016: EUR 79 million).

The positive economic situation in North America and Asia was counterbalanced by a prolongation of difficult conditions in Russia and some European countries. However, the targeted strengthening of specific, national marketing competences, greater sales system efficiency and the consolidation of the global partner

network enabled the capture of higher sales revenues and additional market shares in 2017.

*National market highlights*

The course of business in the DACH region, the Iberian Peninsula, Turkey and Asia was extremely positive. This applied equally to both the Window and Door, and Technical Profile business areas. In overall terms, numerous major orders for high-performance tooling and successful machine business ensured solid capacity utilization.

Both RED.LINE high-performance lines with the latest extrusion technology and RED.TOOLING systems were placed in France, which also saw an intensification of customer support through the complete takeover of the Solufip toolmaking company.

In North America, market shares were gained in both the tooling and machinery sectors. An investment in additional processing machines was made at Greiner Extrusion US Inc. in order to cover the increased demand for tooling in the dollar zone. Moreover, the business trend in the PVC dry blending equipment segment developed in a highly satisfactory manner.

2017 also saw the acquisition of new customers and strategically important contracts in South America. This was achieved in spite of economic crisis and more difficult import conditions.

*Multifaceted solutions for a variety of materials*

The business volume with regard to tooling and machinery for the extrusion of PVC-based cable duct systems rose significantly. Moreover, in the polyolefin extrusion area, projects were completed for particularly demanding applications in the infrastructure sector. In this connection, the Greiner Extrusion Group's process experts established new benchmarks with regard to haul-off speed and the precise calibration of solid profiles. The diversity of special solutions for the extrusion of technical plastics used for applications such as lighting systems and swimming pool covers also increased. Equally, the start-up of a complete production line for large profiles with synchronized in-line perforation can be regarded as yet another technological highlight in 2017.



In 2017, the Greiner Extrusion Group again mastered numerous major orders and delivered a range of lines to meet the strictest customer requirements.

*Successes in Europe, North America and Asia*

*Special plastic replaces steel reinforcement*

In a joint project with BASF, experts from the Greiner Extrusion Group developed a special tooling system for the extrusion of Ultradur®, a new type of plastic compound with glass fiber reinforcement. The group supplied the project with its process technology know-how and tooling design for the precise orientation of the glass fibers during the extrusion process. With this technology, heat insulating, plastic window profiles can be manufactured with the required rigidity, which means that the standard use of steel reinforcement is no longer necessary.



Greiner Extrusion Group offers innovative solutions for the multi-layer co-extrusion of a variety of materials.

*Innovative technologies for diverse materials*

*New technology for more recycling material*

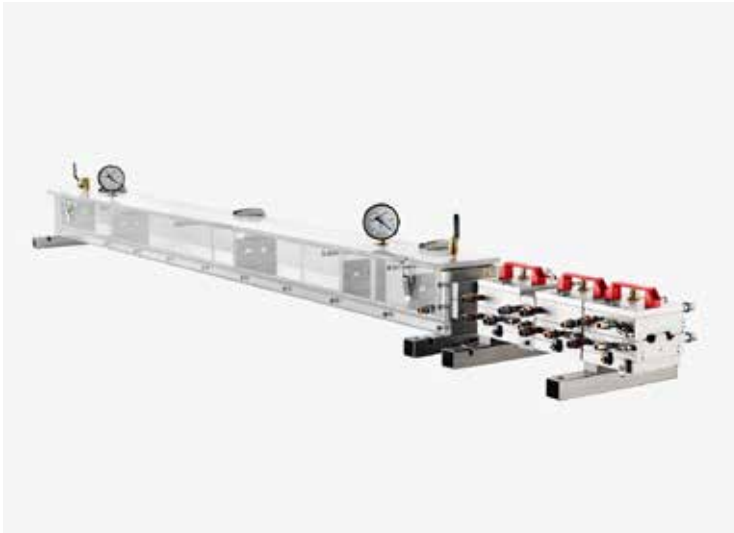
Materials represent the main extrusion cost factor and therefore the combined use of new material and less expensive recyclates has become standard practice in many profile applications. Consequently, in 2017 Greiner Extrusion Group presented LAYER.COEX plus, its latest co-extrusion technology development. This facilitates the still greater employment of recycling material, while continuing to offer first class surface quality and precise layer thickness control for improved cost efficiency.





Greiner Extrusion Group is a full range supplier for profile extrusion from formulation to the final product.





The SILVER.TOOLING system was developed especially for the extrusion of smaller profiles. In particular, it stands out due to first class cost-efficiency and very short delivery times.

*SILVER.TOOLING for the economy segment*

A focus on essentials resulted in the presentation in 2017 of SILVER.TOOLING, an especially economic tooling system for the extrusion of smaller profiles such as glass beads, rods, technical profiles, etc. The system contains core elements of high-end Greiner technologies and stands out due to its slim design, excellent price-performance ratio and particularly short delivery times. Numerous orders turned the SILVER.TOOLING launch into a genuine success.

*PROFILE.RAISER revolutionizes the start-up process*

A further product innovation in 2017 was the PROFILE.RAISER. This is a completely new system, which during start-up automatically brings the profile into the correct intake position on the haul-off. With the PROFILE.RAISER the Greiner Extrusion Group offers an inventive solution for an industry-wide safety problem and also raises the level of profile extrusion automation.



With "ALL EXTRUSION" GPN has opened up new areas and has extended its range for customers with precise production performance for film and sheet dies, cable, tube and hose extrusion tooling, melt pump components, compounding and recycling machines and pultrusion toolings.

## *Production performance for the complete extrusion sector*

### *"ALL EXTRUSION" at GPN*

The Greiner Production Network (GPN) specializes in the precision production of profile tooling in line with customer specifications and with its "ALL EXTRUSION" strategy provides a performance range for the entire extrusion branch. In particular, this incorporates the production of film and sheet dies, cable, tube and hose extrusion tools, melt pump components, compounding and recycling machines, and pultrusion toolings.

In 2017, the growth course in the "ALL EXTRUSION" area was also characterized by extensive investments in processing machines and automation. These included the start-up of a flexible production system and a highly modern multi-axis machining center for large-volume tooling, e.g. for flat film dies.

### *Profile extrusion 4.0*

The fourth industrial revolution has also entered the profile extrusion field and for branch companies, digitization and networking have opened up innumerable new, high-potential areas. From the outset, the Greiner Extrusion Group has played an active role in shaping this trend. For example with RED.LINE control, the GESS.tronic energy saving system or FLOW.CONTROL, all production data can be monitored, controlled and reproduced. In addition, using FLOW.CONTROL product dimensions are reduced to the lowest tolerance limit, the start-up process is accelerated and significant material savings are achieved. Moreover, the Greiner Extrusion Group has focused its

development activities on the digitization of the extrusion process with an emphasis on melt flow control and the calibration and cooling of the plastic profile. These "drivers" represent the core competence of the Greiner Extrusion Group, which has the aim of achieving fully automated profile extrusion control.

### *Outlook 2018*

The new financial year has started well. Numerous projects have already been concluded or are in the negotiating phase. Furthermore, important prerequisites for a continuation of positive company development have been created and the investments made in modernization and automation during 2017 will further raise productivity. At the same time, GPN now offers production performance for the entire extrusion branch and the consolidation of specific national sales competences will serve to intensify customer relationships in new markets. The Greiner Extrusion Group is also ideally equipped with regard to innovative capacity, as it possesses the global industry's largest development capability. This goes hand in hand with the claim to provide customers with tailor-made solutions that offer a larger lead in extrusion.

## *Key competences have been further strengthened*



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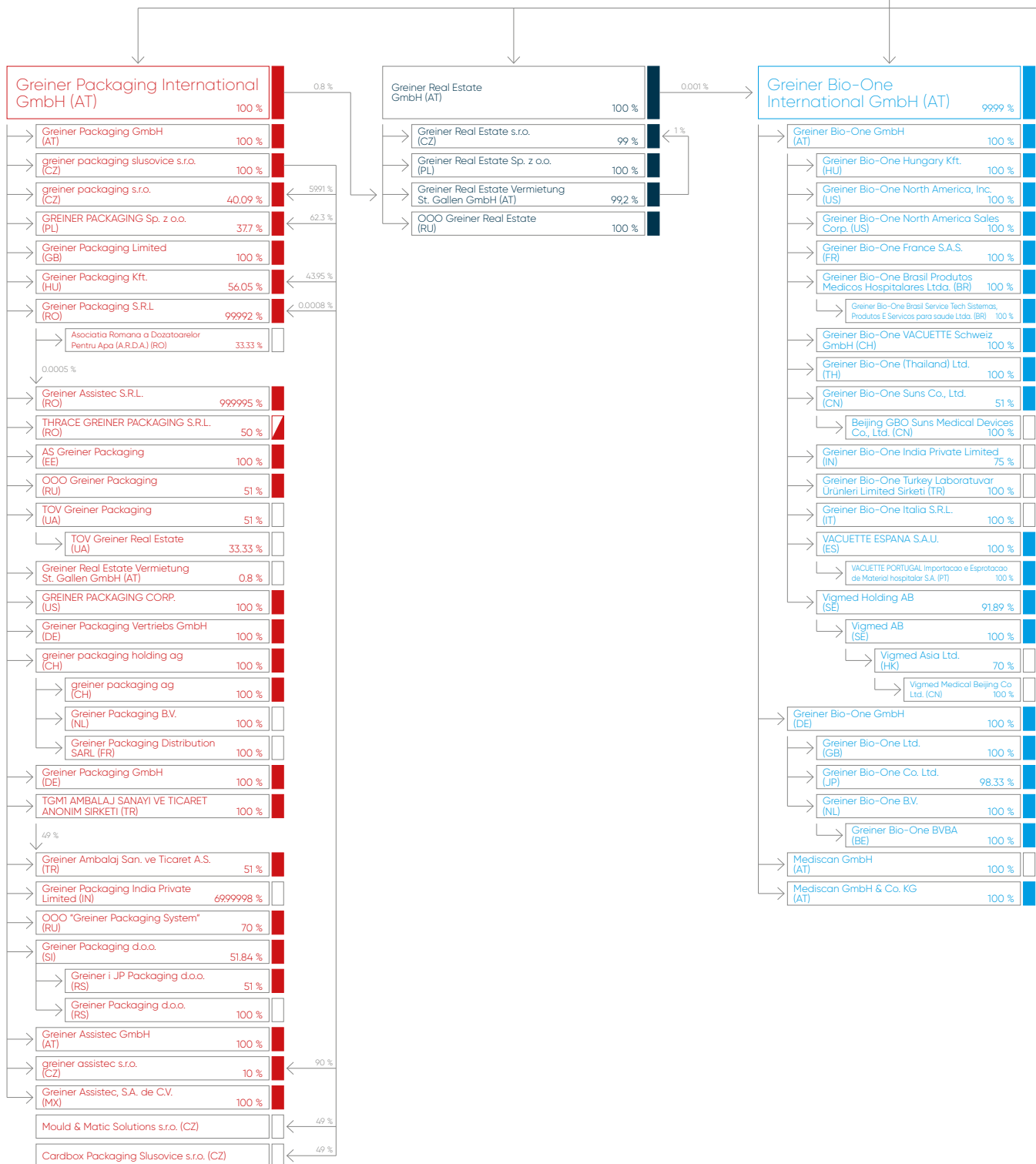
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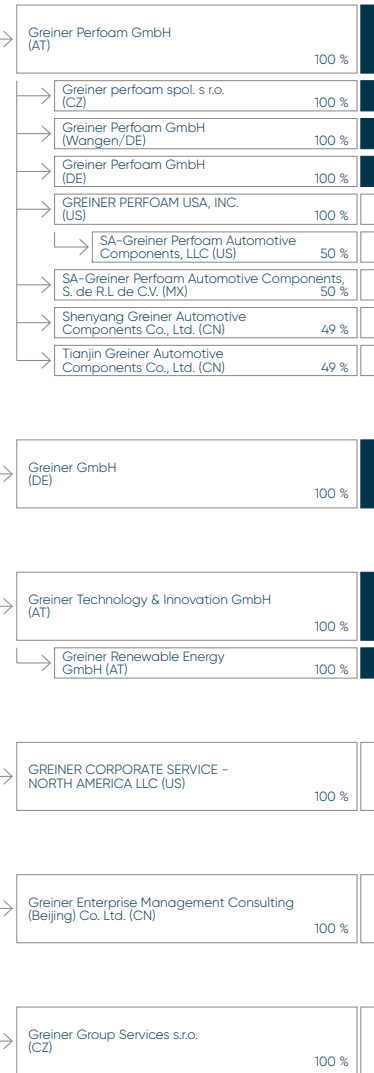
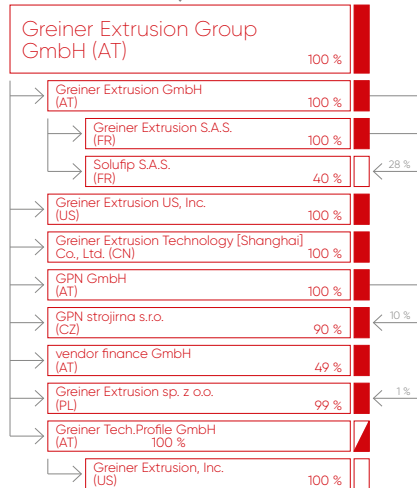
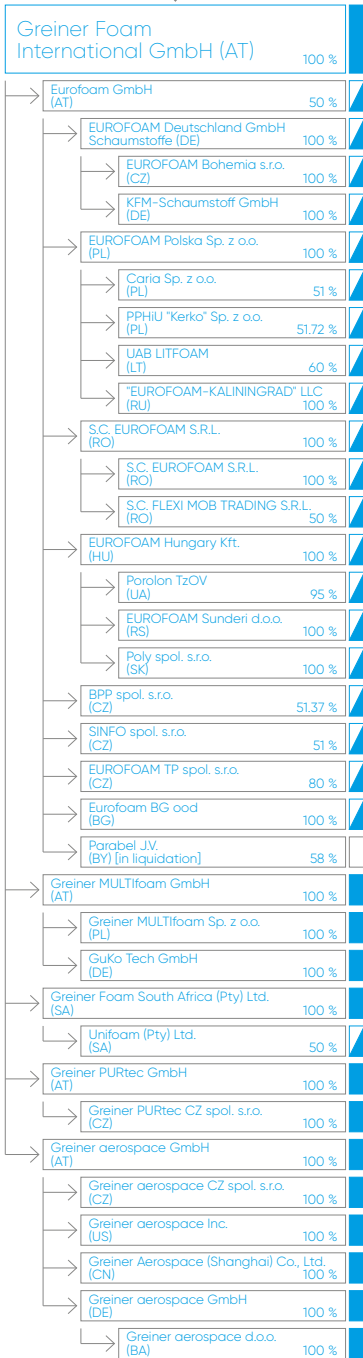
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Greiner Holding AG  
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IFRS scope of consolidation as at 31 December 2017

-  full consolidation
-  consolidation at equity
-  no consolidation

